



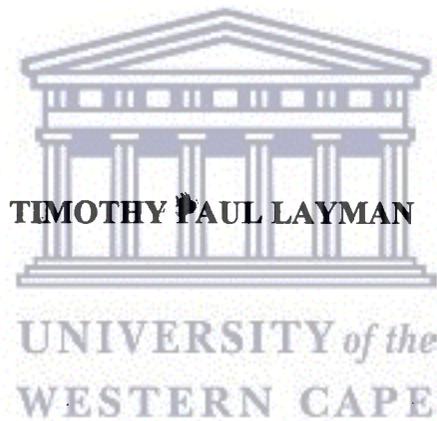
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**PRODUCTIVITY IN THE SOUTH AFRICAN PUBLIC SECTOR:  
AN ANALYSIS OF CURRENT ISSUES AND FUTURE PROSPECTS**

**By**



**A Mini-Thesis, submitted to the School of Government, Faculty of Economic and Management Sciences, University of the Western Cape, in Partial Fulfilment of the Requirements for the Degree of Magister Publicae Administrationis (M.P.A.)**

**1999**



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**DEDICATION**

*In memory of my late grandfather,*

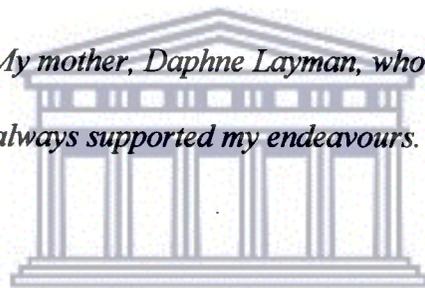
*D.J. Layman, who had such a*

*profound influence on my life;*

*and*

*My mother, Daphne Layman, who*

*always supported my endeavours.*



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## ACKNOWLEDGEMENTS

*This study is a result of several influences and contributions all of which I cannot catalogue. I will, however, risk to mention a few, and apologise for those I have failed to include.*

*I would like to express my sincere thanks to my advisor, Professor Gatian F. Lungu, whose counsel in this study has been invaluable. He critiqued earlier drafts and made plausible suggestions.*

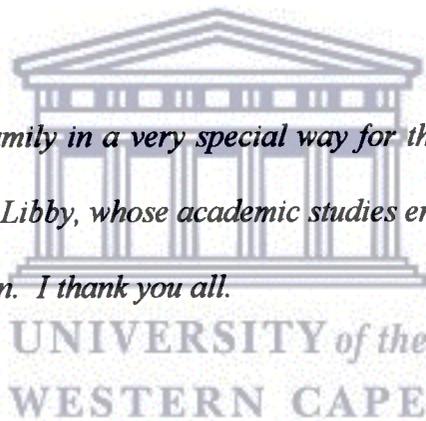
*I wish to extend my special thanks to Jaya Josie, the former Director of the National Institute for Economic Policy (NIEP), as well as its forerunner, the Macroeconomic Research Group (MERG) for the insightful suggestions he made to improve the study. I would like to acknowledge the contribution made by Marritt Claassens and Jolene Adams, who were involved in the baseline research, as well as Dr Jonathan Michie, Zunaid Moolla and Sadiq Jaffer for their comments and support. To Shamielah Gamielien and Nikki Daries, who were responsible for some of the typing, I appreciate their patience and helpfulness.*

*My deep gratitude is due to Job Mokgoro, the former coordinator of the School of Government and the MERG Project on The Role of State. He had given me the opportunity to conduct path breaking research in Economic and Public Management which paved the way for many possibilities.*

*I wish to thank the Director of the School of Government, Professor Chris Tapscott, for his general counsel and encouragement.*

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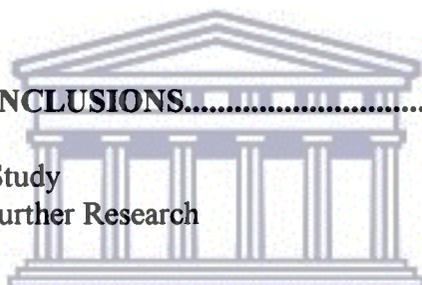
*Finally, I wish to thank my family in a very special way for their inspiration, patience and support. It was my beloved wife Libby, whose academic studies enticed me to pursue a Masters degree in Public Administration. I thank you all.*



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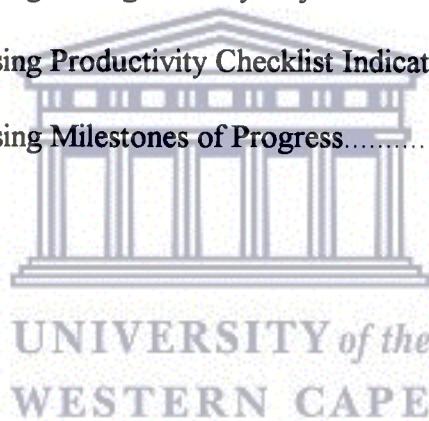
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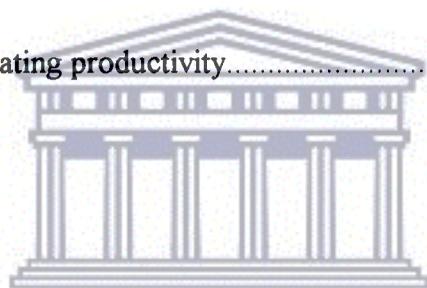
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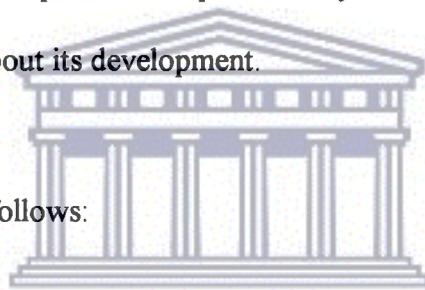


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## ABSTRACT

This study examined the issues and concerns for improving productivity in the public sector in South Africa, aligned in particular with the processes of its fundamental transformation, and the aims and objectives of the Reconstruction and Development Programme (RDP). More than that, it provided the view, the approach, the strategies and techniques to bring about productivity improvement. Productivity is not presented as a panacea to solve all problems. It is presented mainly as an attitude about the importance of productivity that must be acquired followed by suggestions for how to bring about its development.

The aims of the study were as follows:



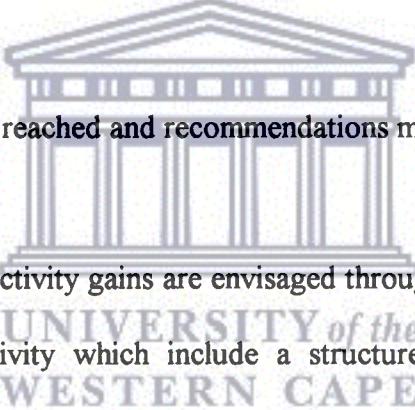
To provide both a comprehensive and at the same time a focused approach to improving productivity in the public sector. Productivity in the public sector encompasses a wide range of complicated and often controversial issues. This study intended to expand the awareness and understanding of productivity in a way that will give it prominence in the wide spectrum of concerns in public management.

A second objective was to describe new skills and proven strategies that could be used for productivity improvement. The study discusses various approaches to improving productivity in the public sector that can be implemented in a number of practical ways.

A third and primary objective was to recommend a model that would effectively improve productivity in the public sector. This model deals with the quantification of productivity gains through the restructuring of budgets and thereby achieving significant savings that could be transferred to priority RDP programmes.

This study used both qualitative and quantitative methods. The study reviewed both domestic and international published work and current research within universities, policy bodies, government departments and elsewhere, including a reconsideration of previous work.

The following conclusions were reached and recommendations made:

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Substantial efficiency and productivity gains are envisaged through the introduction of various models for improving productivity which include a structured productivity improvement programme, the use of performance enhancing methods, performance measurements and performance related pay.

Furthermore, savings, resources and capacity can be released by the RDP programmes through: Restructuring and reprioritizing the budget programmes by making small cuts in what were apartheid-serving programmes and reallocating the human, material and financial resources thus released for high priority RDP programmes/projects.

International experiences show that a direct link between falls in public investment, physical infrastructure and decline in productivity exists. The effectiveness of the public sector to a large extent conditions economic development. The move towards a leaner and more cost-effective public service in South Africa should be based, not on privatisation, but on the creation of effective partnerships between government, labour, business and civil society, and the building of high levels of community involvement in the local delivery of services.

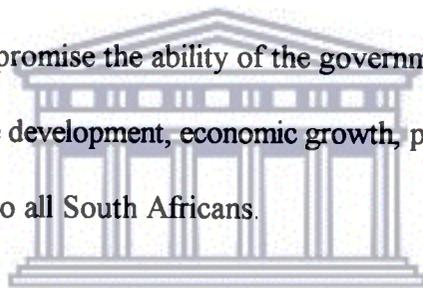
Finally, in order to thoroughly examine the macroeconomic impacts of budgets, there is indeed a need to update and model the quantification of the entire national budget. The same need to be done at provincial and local government level. Given the current constitutional arrangements, much work need to be done in the area of intergovernmental relations. Future research need to focus more acutely on the role of the state in development with particular emphasis on the reconstruction and redistribution of incomes through the use of public finances and budgets.

## CHAPTER 1

### INTRODUCTION

#### Background and Context to the Study

The public service inherited by the new government of 1994 was structured and developed by the previous regime to promote and defend the social and economic system of apartheid. Thus, the public service was characterised by many problematic policies and practices that, if left unchanged, could seriously compromise the ability of the government to achieve its major goals of reconstruction and sustainable development, economic growth, productivity improvement, and the delivery of quality services to all South Africans.



The need to improve productivity in the public service in South Africa has not only been generally recognised, but has also been acted on in some degree. In this regard, a plethora of policy documents emerged, and particular reference is made to the White Paper on the Reconstruction and Development Programme (South Africa, 1994b), the White Paper on the Transformation of the Public Service (South Africa, 1995a), the Government's Growth, Employment and Redistribution Strategy (South Africa, 1996a), and the White Paper on Transforming Service Delivery, under the title of Batho Pele or People First (South Africa, 1997). The establishment of the Presidential Review Commission in 1996 and the comprehensive recommendations and proposals that culminated in the Report of the Presidential Review Commission on the Reform and Transformation of the Public Service in South Africa (South Africa, 1998), was an important statutory initiative brought about to ensure good and equitable governance.

Both the Macroeconomic Research Group (1993), and the National Institute for Economic Policy (1994), argued strongly that the transformation of the public service in the interests of growth and development would not be achieved without a fundamental change in the existing bureaucratic culture. The perspective of MERG is that the bureaucracy should be efficient and should not absorb a high level of resources for its own functioning. Unlike the past South African state, it should be a slim state and should include mechanisms that provide incentives for efficiency, effectiveness and monitoring performance.

Therefore, the aim is to develop a comprehensive approach to productivity improvement in the public service. The government is under tremendous pressure to address the basic needs of the most disadvantaged sections of the population. Thus, the government has to ensure that its policies of reconstruction and development are successfully delivered. The goal of improving productivity is to increase the amount of services produced by a specific quantity of resources. This approach should form an integral part of the overall reconstruction and development programme.

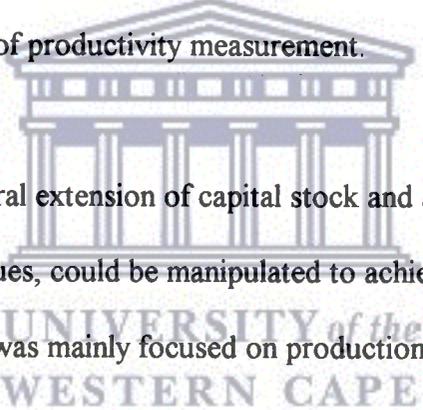
The research begun by Layman (1995), develops this theme and provides a baseline for this study. Substantial efficiency and productivity gains are envisaged through the introduction of a structured productivity improvement programme (PIP) which include the use of performance enhancing methods, performance measurements and performance related pay. It is important to note that efficiency and productivity gains do not necessarily infer retrenchment of staff or a cut or increase in wages. These gains or savings are made on the basis of a reallocation of staff functions for specific RDP programmes and projects. This has been calculated on the basis of the

RDP criteria that infer achieving an efficiency / productivity dividend from maximising the effort within the same budget allocation. It is in this framework in which productivity within the public service might be improved. This has been suggested in previous papers produced by the National Institute for Economic Policy, as well as the White Paper on the Reconstruction and Development Programme, (South Africa, 1994b) and the White Paper on the Transformation of the Public Service (South Africa, 1995a). The basis of the research has been presented at several fora, both nationally and internationally, where it was debated and valuable feedback obtained. The research has had a direct impact on government policy.

The factors affecting productivity are complex and cannot easily be separated because they interact. The increased concern with productivity frustrations has now pointed to the great need organisations now face - commitment to change. The new situation requires different approaches and strategies to deal with these problems. Foreign countries have recognised this by setting up productivity centres, a concept that could contribute greatly towards survival and productivity growth in organisations.

## **Theoretical and Conceptual Considerations: A Historical Perspective**

Since the 1970's, the issue of productivity had become a major concern of the private sector in South Africa. This could be viewed as a response to the growing global economic decline and the resultant formation of organised trade union activity and worker militancy. During this time, productivity was mainly qualitatively defined within the narrow confines of 'economy' and 'efficiency'. In the private sector, economic success was related to the capacity of companies to accelerate the volume and pace of production to gain a competitive advantage in the market. Increased levels of production combined with decreased cost of production had 'economy' and 'efficiency' as the key variables of productivity measurement.



Labour was largely seen as a natural extension of capital stock and as instruments of production, which, with sophisticated techniques, could be manipulated to achieve strategic objectives of the corporation. Thus productivity was mainly focused on production and profit, typically 'supply' side as apposed to a 'demand' led economy. Scant regard was given to patterns of consumption. Productivity was largely regarded as a technical process composed of mathematical and statistical techniques, and nothing more than a simple quantum growth in volume and size of production, the success of which was measured in terms of the ability of goods to sell on the market.

Much of the focus on productivity centred on the private sector. The public sector had largely been excluded from debates regarding productivity. This may have been because of the political situation of the time. It is well known that during the apartheid years, the state regarded the public sector as a means of creating employment for Afrikaner whites. The apartheid state was

too preoccupied in fighting resistance and maintaining the status quo, and was thus excluded from international developments regarding productivity improvement.

Historically, the tendency has been to confine discussions on productivity issues to management, often without wider employee involvement. The substance of discussions was largely confined to increases in production and profit and the maintenance of low labour costs and increased working time. This approach resulted in the alienation of the workforce because there were no benefits for them and they were excluded from the process. Largely, it is therefore why opinions on productivity are so far apart. There is a very close connection between productivity issues and wider social and political questions - in particular, issues about ownership, control, and who is to gain from improvements in productivity. If productivity is simply reduced to a technical approach (though it clearly involves measurement), or a managerial prerogative (though obviously managers need to assume responsibility), we may stand the risk of serious alienation. However, if the approach is an inclusive strategy, which the government is seriously attempting, we will have already gone some way in reducing potential conflict.

This historical context attempts to both define the problem, and point the way to some solutions. This is particularly important as the imperatives of productivity are very much connected with global challenges. It is to some of these challenges that we now have to turn.

## **The Global Context, Post-Fordism and the 'New Productivity Movement'**

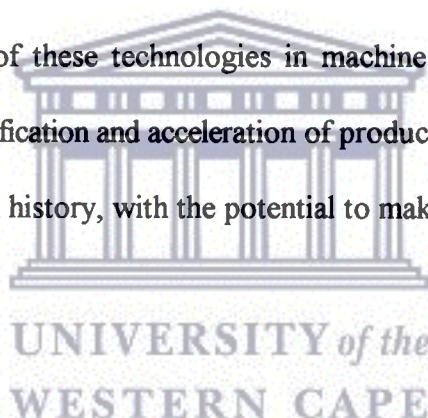
The 'productivity movement' of the post-1970's had much of its origins, and was in many senses a response to the economic decline that many western economies, notably, the United States of America, had experienced in the 1960's. Faced with falling profit levels, rising competition from especially 'newly industrialised countries' (NIC's), high levels of taxation because of massive military expenditure, and growing worker militancy, business concerns responded to these pressures by extensive restructuring and realignment of new sources and outlets for profits.

The fundamental restructuring of modern political economies brought with it far-reaching, and a more complex understanding of productivity. This had significant implications for both the private and public sectors. The features of this 'restructuring', at first not quite global as it appears today, has been referred to as 'post-Fordism' in scholarly literature. It refers to a fundamental realignment of virtually every organisational and strategic facet of modern economic regimes. Major developments were:

1. The end of the concept of mass production based on the relatively uniform units with limited product differentiation and restricted product lines. In its place, more flexible production techniques;
2. the decline of traditional assembly lines, based on repetitive, machine-based, largely semi-skilled labour activities. In its place, multiple and integrated assembly lines, multi-skilling and multi-tasking;
3. the transition from mass to differentiated consumption markets;

4. the growing reach of the 'global firm', not only in finance and trade, but in manufacturing and service sectors across national boundaries and reaching the stage that could truly be regarded as 'transnational'.

The shift from Fordist to post-Fordist economic regimes in the 1960's was accompanied, and perhaps made possible, by at least two significant developments. The first, came with the Information Revolution, and closely linked with this, the extraordinary, and as yet unfolding, impact of computer technology on the structure and performance of enterprises. Made possible by the invention of the microchip (and the use of artificial intelligence in so-called 'smart computers'), the assimilation of these technologies in machine operations enabled complex processing capabilities, the simplification and acceleration of production, providing firms, perhaps more than at any time in modern history, with the potential to make 'giant leaps' in productivity gains.

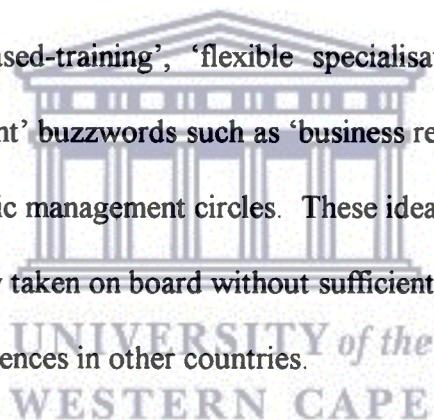


The second source of renewal in the post-Fordist era came from the 'New Management Revolution' largely associated with the influence of Japanese managerial strategies on the global economic stage. Drawing of their own cultural brand of 'managerial capitalism', Japanese companies were the first to discover the market virtues of decentralised decisionmaking, flatter bureaucracies, 'just-in-time' demand and supply, worker 'buy-ins', and lifetime employment and company loyalty, at a time when western firms still prided themselves on authoritarian labour controls.

The impact of these developments, driven by powerful market forces, has been quite profound. Over the past fifteen years or so, it has forced a major rethinking and far-reaching realignment in both corporate and public sectors. We are only beginning to grasp its impact on the meaning and role of management. 'Flexible specialisation' and 'labour market flexibility' have become watchwords for the imminent death of the 'jobs-for-life' age (soon everybody will be 'enjoying' the status of New Age 'contract labourers'). 'Multi-skilling' defines the need for our labour forces to broaden their competencies across a potentially unlimited range of work responsibilities. New, super fast computer technologies are rendering entire layers of occupations redundant. As our public institutions are slowly crossing the 'high-tech frontier', heralding vast possibilities of revolutionising nearly every facet of work (how we communicate, how we make decisions, how we manage resources, how we involve people, and so forth), we must also acknowledge its pitfalls. **Rifkin (1996)** warns of the massive impact which new technologies are having, and going to have, on employment, for example, the emergence of a new, highly skilled technological elite, with vast numbers of 'losers' outside of the new, leaner economic and public institutions of the future. Notions of - 'flexible specialisation', 'multi-skilling', 'down-sizing', 'right-sizing', 'business re-engineering', 'managing-by-computer', 'the virtual office', and even the 'virtual manager' and so forth, carry with them a whole range of possibilities about the nature of work. They potentially offer a new generation of instruments to manage the performance of our public institutions. **(Moharir, 1997)** asserts that in broader perspective, one needs to link the content, strategy, and timing of developments in civil service reforms to economic and social planning. These are precisely the developments that have taken route in South Africa.

## Strategic Implications for the Public Sector

If the 1980's was a period of experimentation of post-Fordism in the private sector, the 1990's have seen aggressive attempts to transpose its ideology and techniques of production, social control, and measurement into the domain of the public sector. If Weberian bureaucratic rules and hierarchies were the public sector equivalent of Taylorist principles of 'scientific management' in industry for the greater part of the twentieth century, it looks like our new public service for the next millennium is increasingly being shaped in the image of the post-Fordist revolution. In South Africa, in recent years, it has become commonplace to mention concepts such as 'multiskilling', 'competency-based-training', 'flexible specialisation', 'lateral thinking' and alongside this, 'new management' buzzwords such as 'business re-engineering', 'performance-related-pay', and so forth in public management circles. These ideas are not necessarily bad, but are often quite unproblematically taken on board without sufficient critical analysis, and without adequately learning from experiences in other countries.



For example, whereas most observers would agree that 'performance related pay' may work well in some sectors, experience in several other countries have questioned the universality of this (Mintzberg, 1996), while others have argued that it can only work in cases where there is a clear link between individual performance and organisational outcomes (Selim et al., 1992). This is not an argument against the principle in its entirety, but rather to problematise its conditions of implementation.

Technological change in the workplace can also lead to redundancies in many occupational categories like middle management and service labour. It is important that projections of these possibilities are made before embarking on a wholesale introduction of 'new age' technologies. Technology can have both socially beneficial and socially destructive consequences.

Similarly, the introduction of commercial norms (pricing, tendering, and more recently, competition) into the public service can push our public sector institutions to become more economic, and through this, also possibly more efficient. Yet, competition has its limits. If pushed too far, it may, as it increasingly is being recognised in other countries like the United Kingdom, which began to experiment in this area since the 1980's, lead to the social exclusion of the poor. It may also breed excessive individualism, and thus undermine the corporate spirit, or leave the 'losers' of the competition race (usually minorities, disabled, and other socially marginalised people) to fend for themselves along the lines of the exclusive principle of 'the survival of the fittest'.

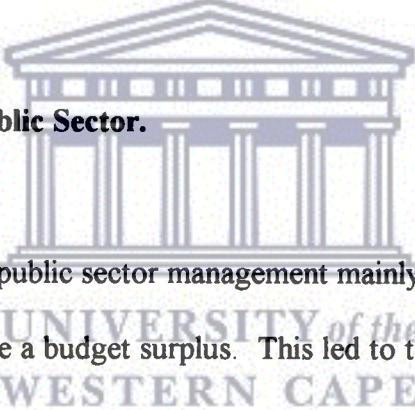


The 'corporate model', a vision of the public service as nothing more than just another corporation, has become increasingly attractive to many public managers as they look for alternatives to the Weberian system. The influence of the new managerialism on our thinking of management in the public sector, often, though, to be fair, not always, accompanied by the ideas on 'new right' economic thinking, has been significant.

The impact of these global changes has been profound. It has certainly seen a convergence in the management cultures in both public and private sectors. Today, public and private sector managers are increasingly finding it easier to use a similar language and discourse, exchange ideas,

techniques and trade expertise across the traditional boundaries. In many senses, this trend can be positive and enriching for both sides. In other senses though, the convergence has been unidirectional, from the private to the public sector, with very little, if any, interest shown by private sector managers to learn from their public counterparts. Indeed, one often finds a great deal of 'professional arrogance' among many private sector managers when speaking to, and of, public management. This view is seriously misplaced. For it assumes, quite erroneously, that the private sector has mastered the 'science of management'. It also assumes that managing a private company is anything as complex and difficult as it is to manage a publicly accountable institution. (Swartz, 1997).

### **The Distinctive Role of the Public Sector.**

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During the period 1986-1990 the public sector management mainly focused on cutting costs and reducing resource use to produce a budget surplus. This led to the neglect of human resource management issues and programmes. It was noted that expenditure cuts and privatisation have limitations and may be counter productive.

Various authors commented on the negative social and economic results of the decline in public investment in social and physical infrastructure in the 1980's. In the United States of America this led to a dramatic decline in the quality of health, education, social welfare services and in the quality of transport and other physical infrastructure. There is thus a direct and demonstrable link between the fall of public investment in physical infrastructure and productivity. This led to the need to define the role of the public sector.

The importance of the public sector cannot be expressed by simple measures of size. The public sector, acting on behalf of political authorities, affects every part of the economy and the society.

Its effectiveness, to a large extent, conditions economic development and sustains political and social cohesion. The public sector is responsible for the legal and administrative environment in

which private business activity takes place. It affects production decisions and cost through a

myriad of regulatory controls, services, transfers, taxes and tax reliefs. It alters patterns of demand by redistributing income. It is also a large purchaser in the private economy and thereby

affects overall resource allocation. It influences national economic efficiency, the rate of technological and organisational innovation, the direction and speed of structural adjustment, and

the cost to users of un-priced resources like the environment (Lawton and Rose, 1991). }

Given the unique problems of South Africa's apartheid past, and the equally distinctive way in which these were resolved in the transition to majority rule, it is tempting to take a particularistic and inward looking approach to the question of administrative transformation. Whilst South Africa must clearly find its own solutions to its own specific problems, it is nevertheless important to ensure that the process is informed by lessons from international experiences.

## **Problem**

The problem of productivity in the public service is multidimensional. Given the background to this study, this section will attempt to examine the problem as it manifests itself at a national, provincial and departmental level.

The report of the Presidential Review Commission (**South Africa, 1998**) brought home vividly how fundamentally flawed was the machinery of state that the first democratic government of South Africa inherited in 1994. The government inherited a hopelessly over-employed (one in two Afrikaners work for the government), corrupt, inefficient, ineffective and unproductive public service (**Finance & Technique, 1995**), which was constructed and managed for the purposes of regulation, control and constraint, and not for those of community empowerment and development. The instruments necessary to begin the process of reconstruction and development simply did not exist. A new machinery and a new culture of governance had therefore to be created. The enormity of this challenge cannot be over-estimated.

### **The Government Audit Function in A Democratic South Africa**

It is noted in the report of the Auditor-General (**South Africa, 1994a**) that the scope and complexity of the task of transforming the public service are undoubtedly being underestimated, especially if one bears in mind that more than 1.2 million public servants are involved in the process of amalgamation and the reorganization of functions. Different operational practices, approaches and organizational cultures are involved and no task of the scope and complexity of

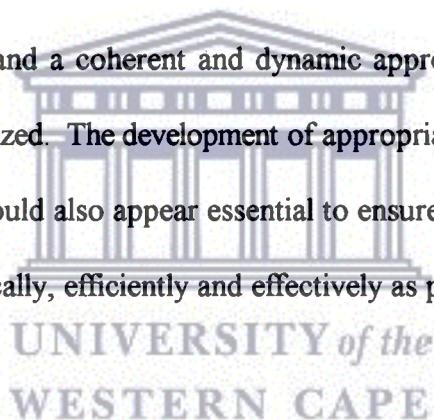
this one has ever been undertaken in South Africa. There is no doubt that the process will take many years and will be accompanied by many problems that include mainly the following:

- (a) The problems have manifested themselves with the reintegration of the administration of the former TBVC countries, as regards national and provincial functions, into the relevant national government departments or into the new provincial administrations, respectively. These problems have led to a number of qualified audit opinions concerning expenditure in the former TBVC countries. The extra administrative work involved in reintegration is also causing problems for national departments that up to now have only just been able to manage. This has led to various qualified audit opinions because certain matters did not receive sufficient attention due to pressure of work.
- (b) Structural problems exist from an accountability point of view, because of the many agency agreements (where one organization renders a service on behalf of another organization that is responsible for the function) and the rendering of service on a recoverable basis. These arrangements, although unavoidable during the transitional process, are as a rule to the detriment of accountability and the efficient and effective application of the State's resources.
- (c) Extensive problems are being experienced in some provinces with the process of building new administrations. This in turn leads to inadequate financial administration that sometimes leads to qualified audit opinions at the national level regarding the expenditure of funds transferred to the provinces.

- (d) There are many other individual problems regarding financial management and probity among others. These are caused mainly by problems with financial management and administration, at the root of which lies a very serious lack of appropriate expertise.

The report of the Auditor-General (**South Africa, 1995b**) suggests that the financial management and administrative problems of the transition are large indeed. The problems cannot go unresolved. In this regard there may be broad consensus on what needs to be done but consensus on how to do it has thus far unfortunately in most cases proven elusive.

The need for corrective steps and a coherent and dynamic approach by everyone concerned therefore cannot be over-emphasized. The development of appropriate action plans and the close monitoring of their execution would also appear essential to ensure that South Africa applies its available resources as economically, efficiently and effectively as possible in the best interest of all its citizens.



It must be emphasized that the government audit function continues to have a key role to play in promoting effective accountability, clean administration and efficiency. In order to be successful with this, the independence of the government audit function in its entirety and a total prohibition on interference with this function is indispensable. The progress made by the Constitutional Assembly and its relevant sub-committee on the content of the proposed provisions pertaining to the Auditor-General in the final Constitution, and the process followed to try to accommodate valid points that support a truly independent governmental audit function gives every reason to believe that this result will in fact be achieved.

In order to balance the picture, it is necessary to reiterate the obvious, namely, that the world is not a perfect place. No organization will ever achieve perfection. This is fully realized. It is especially true of very large organizations, such as the South African Public Service. On the other hand there is always room for improvement.

Among other things, the Office of the Auditor-General intends to consolidate its contribution in this regard through human resource auditing and the evaluation of the implementation of the RDP by government departments. The government audit function continues to have a key role to play in promoting effective accountability, clean administration and efficiency.

#### **New Provincial Administrations**



According to the report of the Auditor-General (South Africa, 1995b), preliminary investigation carried out regarding the extent to which the new provincial administrations succeed in keeping their accounting records up to date and in implementing and maintaining sound financial systems, revealed various material unsatisfactory aspects as at 31 December 1995. Although all are not necessarily applicable at each and every provincial administration, these unsatisfactory aspects are sufficiently widespread to warrant specific mention. They include the following:

- (a) There is a clear lack of appropriately trained and experienced staff with a financial background.

- (b) There is a general lack of proper internal checking and control measures which could seriously jeopardise the extent to which the facts and figures contained in accounting records can be relied on.
- (c) All bank reconciliations have not been done regularly - in some cases even for several months - which has serious implications for financial management and control.
- (d) Accounts have also not been properly/completely written up. In one case no main ledger accounts for 1995-96 had yet been opened in respect of several Votes, and an acceptable accounting system had apparently also not yet been put in place.
- (e) It would appear that budgetary control is lacking. The possibility that unauthorised expenditure has been incurred can therefore not be excluded.
- (f) Items in suspense accounts in respect of the former TBVC countries and Self-governing Territories have not yet been adequately cleared/adjusted.
- (g) All appropriation accounts and related statements in respect of the 1994-95 financial year have not been submitted for auditing. Some of those which were submitted, had to be referred back for correction of fundamental errors. In one case different financial systems were used by the various centres for the processing of payments, and this could have had a further detrimental effect on the early compilation of accounts and financial statements and the completion of the audit process.

In some cases consultants or other persons have, at considerable additional expense, been appointed by provincial administrations and/or the Department of State Expenditure to assist in writing up the books and compiling the financial statements. The current situation is reason for grave concern. Financial management in the new provincial administrations must be put on a sound footing as a matter of urgency. From the above it appears that certain of the provinces will have to receive assistance from national level to adequately address their accounting and financial management difficulties.

The review of the public service (South Africa, 1998), has found that in general, state departments appear strong on policy but weak on delivery. Progress in giving effect to new policies across the whole spectrum of government has nevertheless been made. However, it is viewed that the system of governance in the new South Africa is in a number of crucial respects not working well at this stage of the transition process. Too little progress has been made in remedying the inequalities and inefficiencies of the past. The delivery of public services, their costs and quality, leave much to be desired.

Many national departments create new policies without considering how they are to be implemented. The unwritten expectation is that the provinces will make the necessary financial and organisational arrangements. There appears to be an assumption at national level that policy will automatically become activity.

Deadlines are often set at national level for implementation, but these tend to be over-optimistic, and not based upon a true assessment of the operational activities that are required.

For instance, according to the provincial review report compiled by the **(Minister and Department of Public Service and Administration, 1997)** the new Schools Act requires that people on the newly created School Governance Structures receive training. This was not costed, and provinces have difficulty finding resources for this in time. Similarly, although Technology Education is to be part of the Curriculum 2005, some provinces have no resources for schools, no training programmes for teachers, and no strategies in place for implementation. There is no support staff to guide teachers with the implementation of this initiative.

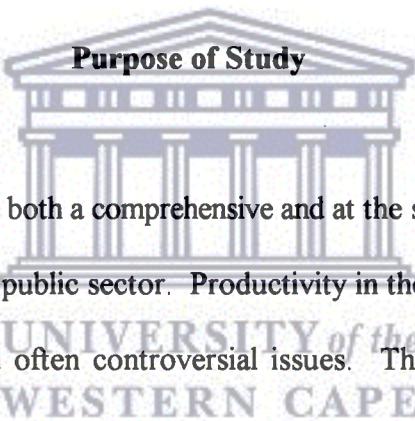
The implementation of Free Primary Health Care for nursing mothers and infants and the provision of abortion on demand was introduced rapidly and without consideration of the real resource and time requirements in provinces.

Many departmental strategic plans are not implemented. Whilst most provincial departments have developed strategic plans, and often at great expense, many are not implementing the plans. Most departments have made use of consultants to develop their strategic plans and it appears that no transfer of skills has occurred. Thus expertise is lacking for the development of action plans for implementation. In some departments attempts have been made to deliver on the action plans, but this has not been systematic or coordinated.

For example, in one provincial department a strategic plan was developed in conjunction with all the relevant stakeholders and widely agreed upon and accepted. A year later the department was involved in another strategic planning exercise without evaluating their progress on the delivery against the first plan. No attempt was made to link the first plan to the second.

Thus, departments have not made sufficient progress with the transformation process. Many departments are involved in day to day crisis management and are unable to address issues of transformation in any depth. Some departments have made superficial attempts to address the issue of representativeness, but they have made much progress on other issues of transformation.

Additionally there is a lack of strategies to address transformation. Such strategies do not seem to be built into departmental strategic plans. All these issues has a profound effect on productivity and service delivery.

The logo of the University of the Western Cape, featuring a classical building facade with columns and a pediment. The text 'UNIVERSITY of the WESTERN CAPE' is overlaid on the image.

### Purpose of Study

The aim of this study is to provide both a comprehensive and at the same time a focused approach to improving productivity in the public sector. Productivity in the public sector encompasses a wide range of complicated and often controversial issues. This study seeks to expand the awareness and understanding of productivity in a way that will give it prominence in the wide spectrum of concerns in public management.

A second objective is to describe new skills and proven strategies that could be used for productivity improvement. The study discusses various approaches to improving productivity in the public sector that can be implemented in a number of practical ways.

A third and primary objective is to recommend a model that would effectively improve productivity in the public sector. This model seeks to quantify productivity gains through the restructuring of budgets and thereby achieving significant savings that could be transferred to priority RDP programmes.

### **Hypothetical Assumptions**

Both previous studies and the author's own impressionistic observations make it possible to formulate specific propositions that have some relevance to the study.



#### Statement I

Substantial efficiency and productivity gains are envisaged through the introduction of various models for improving productivity which include a structured productivity improvement programme, the use of performance enhancing methods, performance measurements and performance related pay.

It is important to note that efficiency and productivity gains do not necessarily imply retrenchment of staff or a cut or increase in wages. These gains or savings are made on the basis of a reallocation of staff functions for specific RDP programmes and projects. This could be calculated on the basis of RDP criteria which imply achieving an efficiency/productivity dividend from maximising the effort within the same budget allocation. It is in this framework in which productivity within the public service could be improved.

## Statement II

Savings, resources and capacity can be released by the RDP programmes through: Restructuring and reprioritizing the budget programmes by making small cuts in what were apartheid-serving programmes and reallocating the human, material and financial resources thus released for high priority RDP programmes/projects.

The following funds could easily be transferred from the budget of the Department of Defence to the following RDP programmes:

Security: It is possible to have major cuts in the defence budget which could be transferred to the police budget. Without security, community welfare will never improve. The Government could transfer R1,0 billion out of the defence budget to police and community security functions to counteract crime and violence in communities.

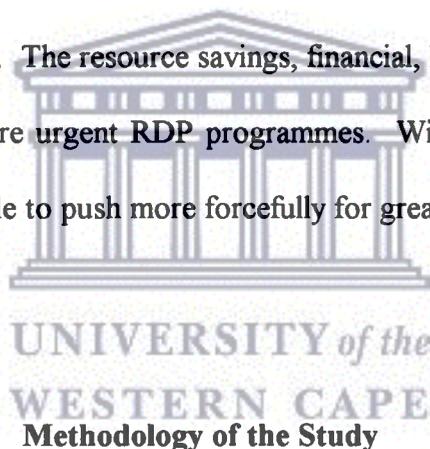
Skilled Labour Accumulation: In the long term the RDP will not succeed unless there is an adequate pool of trained personnel, such as, medical personnel; teachers; civil engineers, and so forth, available to support RDP Programmes. The Government could allocate R0,7 billion to establishing and upgrading training facilities; recruiting experienced teaching staff; and running bridging courses for potential students.

Removal of Transport Gaps: Many towns in South Africa are denied access to employment opportunities because of the absence of basic transport services. The Government could put aside R0,5 billion to remove these gaps in the transport system. As a stop gap measure, the government

could support the extension of the bus and mini-bus system and rehabilitate the train system where necessary.

**Local Government:** The Government could put aside R0,3 billion (funded by a transfer of resources from central government) to help establish local/regional administrations and re-establish the local government tax base.

Overall the combination of efficiency/productivity gains; financial services; expenditure reductions; user pay charges; stockpile sales; achieves a saving of R2,5 billion from the full year of the 1995/96 Defence Budget. The resource savings, financial, human and material, could be transferred and utilised for more urgent RDP programmes. With more time, resources and information, it would be possible to push more forcefully for greater savings, cuts and changes within programme allocations.



This study uses both qualitative and quantitative methods. The study reviews both domestic and international published work and current research within universities, policy bodies, government departments and elsewhere, including a reconsideration of previous work.

With regard to the quantification of productivity gains, the basis for analysis is the NIEP model on the South African budget and the NIEP Report on the Quantification of the RDP, (1994). The department of defence is used as a case study in this regard.

## Organization of the Study

The study is divided into three parts:

Chapter 2 discusses qualitative models for improving productivity in the public sector.

Chapter 3 presents a model for effective productivity. The model deals with the quantification of productivity gains. The department of defence is used as a case study where programmes and expenditure patterns since 1993/94 is examined. The potential for achieving productivity gains by restructuring the budget will also be explored. Budget estimates and savings are projected for 1996/97 and 1997/98.

Chapter 4 summarises and concludes the study by making specific observations based on the initial hypothetical assumptions made earlier on in this chapter, and by providing guidance for future investigation.

## Delimitation of Key Terms

The intention is not to legislate the usage of terms, however, an indication of their intended meaning in this study is necessary to avoid vagueness and confusion. Below are some key terms and concepts that might be unfamiliar to a non-South African.

Afrikaner: refers to an Afrikaans-speaking White person in South Africa, especially of Dutch descent.

**Apartheid**: in South Africa, the previous nationalist party government introduced a policy of segregation and discrimination on the basis of race in 1948.

**Auditor-General**: must audit and report on the accounts, financial statements and financial management of all national and provincial state departments and administrations; all municipalities; and any other institution or accounting entity required by national or provincial legislation to be audited by the Auditor-General.

**Bantustan**: this term serves to discredit apartheid legislation which created the previous 'independent states' (TBVC's) of Transkei, Bophuthatswana, Venda and Ciskei and the 'self-governing' territories (SGT's) of Gazankulu, KaNgwane, KwaNdebele, KwaZulu, Lebowa and Qwaqwa. These areas were reserved for a African people who spoke a particular indigenous Bantu-language. 'Homeland' was the official name for these areas.



**Blacks**: this term is used in this study to refer to members of the African, Indian/Asian and Coloured communities.

**Development**: can be understood as a decisive, comprehensive and integrated process that expands the range of choices that people have and improves their standards of living. It therefore entails much, much more than an increase in income or Gross Domestic Product (GDP), which is the total value of all final goods and services produced in the economy during a given time period (usually a year), or employment. Development includes several 'social' indicators such as education (level of schooling, literacy), life expectancy, nutritional levels, health (eg. Infant

mortality rates), and housing (persons per room, running water per household, sanitation, etc.). (Fourie, 1997).

Economic Growth: can be defined as an increase in GDP, i.e. a country's production during a specific period, or the yearly increase in goods and services. (Fourie, 1997).

Effectiveness: may be defined as how well a programme or activity is achieving its stated objectives, its defined goals (eg. targets) or other intended effects. (Tomkins, 1987).

Efficiency: could be defined as the ratio at which inputs are converted into outputs; expressed either as maximum output gained from minimum resource input, or the minimum level of resources used for a specific level of output. (Selim et al., 1992).

Financial and Fiscal Commission: refers to a statutory agency established to ensure equitable resource allocation between departments and provinces.

Old order legislation: means legislation enacted before the previous constitution took effect.

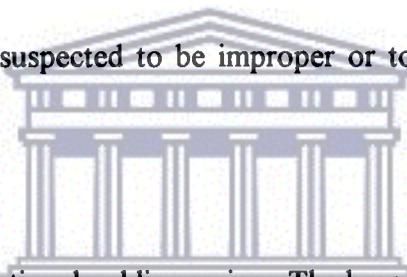
Previous Constitution: means the Constitution of the Republic of South Africa, 1993, (Act 200 of 1993).

Presidential Review Commission: an agency established for a period of twelve months to carry out a comprehensive review of the structure and functions of the public service and its statutory bodies focusing in particular on the division of the role and tasks between central and provincial

authorities; an internal audit and review of each ministry, department, office and agency concerning its objectives, structure, function, staffing and financing; a review and revision of the system, routines and procedures of planning, budgeting and financial execution (to be undertaken in partnership with the Ministry of Finance), with a view to increase public sector accountability.

**Productivity**: given its centrality, this term is conceptualised in detail within the text.

**Public Protector**: an ombudsman who has the power as regulated by national legislation in South Africa to investigate any conduct in state affairs, or in the public administration in any sphere of government, that is alleged or suspected to be improper or to result in any impropriety or prejudice.



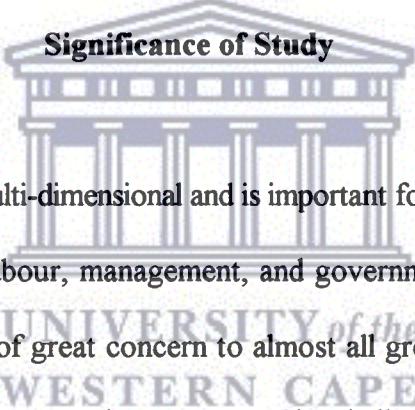
**Public Sector**: includes a single national public service. The broad thrust includes the remaining areas of the public sector, such as the South African National Defence Force, Intelligence Services, Local Authorities, Public Corporations, Agricultural Marketing Boards, Parastatal Institutions, Universities and Technikons.

**Reconstruction and Development Programme**: is a policy framework for integrated and coherent socio-economic progress. It seeks to mobilise all our people and our country's resources toward the final eradication of the results of apartheid. Its goal is to build a democratic, non-racial and non-sexist future and it represents a vision for the fundamental transformation of South Africa.

**Transformation and Reform**: Transformation is regarded as a dynamic, focused and relatively short-term process, designed to fundamentally reshape the public service for its appointed role

in the new dispensation in South Africa. Transformation can be distinguished from the broader, longer-term and ongoing process of administrative reform which will be required to ensure that the South African public service keeps in step with the changing needs and requirements of the domestic and international environments. Whereas the goals of transformation are to be achieved within an anticipated timescale of two to three years, the process of administrative reform will be ongoing. This is not to suggest that transformation and reform cannot take place at the same time. In fact this is what will happen during the next two to three years, with transformation being the dominant process. After this time, reform will become more of the order of the day.

### Significance of Study

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The significance of the study is multi-dimensional and is important for theory, research and policy. Productivity is an area where labour, management, and government have strong mutuality of interests. Productivity lags are of great concern to almost all the groups in the public sector. To most, productivity is a challenge that must be met now. The challenge can best be described with questions. Can we improve productivity in the public sector? Can we change the attitudes and work ethic of public servants and managers and transform the work processes in an efficient manner in order to improve productivity. If so, how can we do it? Can we improve our way of managing complexities with innovations in the processes of planning and doing work to experience productivity gains? Can we motivate employees toward productivity? This study will seek to provide both a comprehensive and at the same time a focused answer to these questions.

This study is of particular concern to the government, members of parliament, and all public officials in general. This research will thus feed into the government's broad policy objectives of transforming the public sector and improving productivity. The intention is to free up resources for the Reconstruction and Development Programme (RDP), and speed up the effective delivery of services.

This study could serve as a practical operating guide for productivity improvement in the public service (national and provincial), local government, parastatals and other public organisations. It could serve as a text and resource for the South African Management and Development Institute (SAMDI), tertiary institutions offering courses in public management, training sessions and development seminars, and workshops on how to develop skills for managing productivity.

This study, therefore, should be of great help to any public managerial practitioner at any organizational level who is responsible for carrying out work in a productive way - executives, managers, supervisors, public administrators, government officials, educators, educational administrators, professionals, health-care administrators, and managers of small businesses.

Ultimately, civil society will benefit, as the research will examine how the public service can become more efficient, more responsive to the needs of the public, and more cost effective, hence releasing resources for RDP programmes (NIEP, 1995).

## CHAPTER 2

### MODELS FOR IMPROVING PRODUCTIVITY

Internationally, governments are under constant pressure to deliver more services with fewer resources. Thus, improving productivity has created a quiet revolution particularly in Japan and the western world. The international models introduced in this chapter compliment each other and both the strengths and weaknesses are considered. There are certain elements that could be useful for South African conditions, however, 'homegrown' solutions need to be developed.

Productivity improvement can help alleviate, but not eliminate the problems as stated in chapter one. The following questions arise:

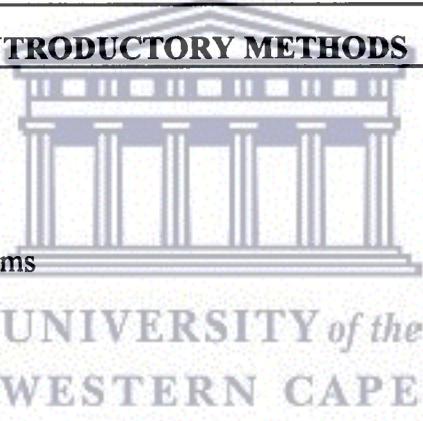
Who should be responsible for improvement efforts?

When is the right time to undertake such activities?

How long will an improvement programme take to implement?

A (PIP) Productivity Improvement Programme should be translated into a proposal that identifies objectives, outlines a methodology, describes the benefits to be expected, sets a timetable and estimates costs.

## Introducing A Structured Productivity Improvement Programme (PIP).

<b>INTRODUCTORY STRATEGIES</b>	
<ul style="list-style-type: none"> <li>■ Executive support</li> <li>■ Participation of managers and employees</li> <li>■ Policies to build support</li> </ul>	<ul style="list-style-type: none"> <li>Redeployment of resources</li> <li>Share benefits</li> </ul>
<ul style="list-style-type: none"> <li>■ Effective communication</li> </ul>	
<b>INTRODUCTORY METHODS</b>	
<ul style="list-style-type: none"> <li>■ Orientation meetings</li> <li>■ Information materials</li> <li>■ Participation mechanisms</li> <li>■ Union involvement</li> <li>■ Publicity</li> </ul>	
<b>TIMING</b>	
<ul style="list-style-type: none"> <li>■ Introduction should be undertaken when working conditions are "normal"</li> <li>■ Selective introduction should be used to build support</li> </ul>	

**Table 1      Introducing the PIP (Source: Morley, 1986)**

Table 1 illustrates key points relating to the introduction of the PIP. The introductory strategy entails telling people about the programme (providing information), and selling them on it (generating support and/or overcoming resistance). Specific strategies involve: Demonstrating executive support for the programme; initiating participation by affected managers and employees;

implementing policies to build support (eg. redeployment of resources to new areas of work and the consequent retraining programmes this entails); using persuasive communication to stress benefits of the programme as well as providing information about it.

Various methods can be used to help introduce the PIP. Orientation meetings are particularly effective because all of the introductory strategies can be included in them. Other methods include informational materials, publicity, union involvement, and participation mechanism (such as task forces, surveys, and meetings).

The timing of the introduction can also help generate support for the PIP. Managers and employees will be more receptive to a new programme if it is introduced when working conditions are at normal levels, not during peak workload periods. A selective introduction approach can be used to help build support for the PIP. Improvement efforts can be introduced to departments one at a time so that initial successes generate greater acceptance for the PIP in remaining departments.

Another activity that is performed as part of the introductory stage of the PIP is establishing a measurement system. The main purpose of the measurement system is to provide feedback on the impacts the improvement methods have on productivity and service quality. This identifies areas needing corrective action and can be used to help motivate managers and employees by providing feedback and/or setting targets. Establishing a measurement system primarily involves: Identifying output measures that accurately reflect the work performed; identifying quality measures that reflect important aspects of service quality; establishing a system to collect and compile data on these indicators.

The final step in the introductory stage of the PIP is determining which improvement methods can be used for particular jobs. This requires analysing current conditions of jobs being considered for improvement. Analyses can be performed by developing profiles of the job and its environment. These identify features that can be used to help select improvement methods that are compatible with the job and its environment. These points are illustrated in Table 2. Analysing job characteristics identifies how the work is performed (including the equipment used), and who does it (including skills used and number of people involved).

Job environment analysis identifies factors external to the job that may influence the choice of improvement methods. These include other jobs that are directly or indirectly related to the job being improved which might be adversely affected by changes in it. The nature of citizen contact is identified to determine how it might be affected by change. Rules and regulations that may restrict the kind of changes that can be made (e.g., civil service regulations affecting personnel use), are also identified. The final environmental factor is the structure of the organisation and/or management style, which may not be compatible with certain kinds of change.

<b>JOB CHARACTERISTICS</b>
Employees: skills and attributes, number involved
Equipment: type, age, and condition
Production process: how work is performed
<b>JOB ENVIRONMENT</b>
Directly related jobs or services
Indirectly related jobs or services
Nature of contact with citizens
Rules and regulations limiting change
Organizational structure/management style

**Table 2**      **Characteristics of jobs and their environment to be identified before selecting improvement methods (Source: Morley, 1986)**

### Selecting Improvement Methods

Once job and environmental characteristics have been identified, the various improvement methods should be reviewed to determine which are compatible with it. The main features of methods that focus on improving productivity by increasing staff efficiency are illustrated in Table 3.

Method	How it Works	Limitations on Use	Cost Considerations
Work Redesign	Changes work procedures (simplify work eliminate steps, etc.).	Applicable to repetitive work. Regulations may limit ability to change methods / responsibilities.	Cost of work analysis and redesign; possibility costs of training in new procedures.
Incentive Systems	Increases motivation by rewarding employees for increased output; better performance; or changed behaviour.	Output based incentives require quantifiable outputs. Regulations may prohibit pay variations associated with incentives.	Costs associated with rewards; amount paid as monetary incentives or Rand value of other rewards (e.g. time off).
Job Enrichment (including job rotation and teams)	Increases motivation by filling higher level needs. Changes jobs to add diversity responsibility.	Useful only when employees need enrichment. Regulations may limit ability to change methods/ responsibilities. Management may resist increased employee responsibility.	Cost of analysis and redesign; possibility costs of training in new procedures. Employees may want higher pay for more work.
Group participation (including labour - management committees, task forces, and quality circles)	Increases motivation by filling higher level needs through employee participation. May lead to work changes more directly related to productivity.	Management may resist increased employee responsibility.	Work time lost while attending group meetings.

Management by Objectives	Increase motivation because employee helps set own work goals. Targeting may help channel work efforts.		Work time lost during objective setting and evaluation processes.
Flexitime	Increases motivation because employees participate in determining work hours.	Impacts on related jobs and/or the public may limit use.	Cost of time recording devices. Possible additional overhead costs
New Technology	Equipment supplements or replaces labour. Computers used for better planning and/or to supplement or replace labour.	Most applicable to jobs already using equipment. Employee/union resistance to reductions in labour force may limit use.	Cost of equipment.
Internal Organizational Restructuring	Reduces duplication and saves money by larger scale operations.	More applicable for support-type services than those with direct client contact.	Cost of designing reorganized structure.
Contracting for services	Removes responsibility for service program; saves money.	Politically sensitive services can't be contracted out. Provider must be available. Possible employee/public resistance.	Cost of service provision; may increase in future.

Intergovernmental agreements	Pool resources to share facilities/ equipment or provide services; saves money.	Nearby jurisdictions must be interested in cooperating.  Politically sensitive services can't be provided this way.  Possible employee/public resistance.	Continuing portion of costs of services shared.
Resource reallocation	Reallocate personnel/ facilities to meet demand better; reduce excess.	Possible employee/public resistance.	Analytic costs (possibility including computer models).  Cost of facilities, if built.

**Table 3 Summary of improvement methods (Source: Morley, 1986)**

Limitations on the use of each method should also be reviewed at this time, since the use thereof may be restricted in a particular situation. A final factor to consider is the cost of the improvement method. All methods involve costs in the sense of time associated with preparation: for example analysing current conditions, selecting and designing the new methods, and implementation. Some improvement methods have additional costs associated with it. In these cases, both start up costs, (eg. operating and maintaining equipment, payments for incentive systems), should be included. The financial costs of the PIP would derive from the gains achieved through increases in productivity. Rationalisation, redeployment, improved working methods and gains achieved through increases in productivity will drastically reduce the costs of the new Productivity Improvement Programme.

When selecting improvement methods, you are not restricted to applying only one method to a job or department. In fact, since most departments contain a variety of jobs, it is likely that more than one method will be applied in any department. It is also appropriate to use more than one method at a time for a particular job. Some improvement methods are frequently used together because they complement one another. Job redesign often accompanies new technology, job enrichment, and incentive systems, for example. Others can be used together because they do not conflict with one another. For example, a flexitime system can be used in a department where some jobs have been redesigned and where others are under incentive systems.

The advantage of using multiple methods is that it enables productivity improvement to be approached from a variety of perspectives, and thus increases the potential impact on productivity. One method can use a direct approach, such as changing the way the job is performed, or using new technology. Another can be indirect, using one of the motivation-related techniques. A disadvantage of using multiple methods is uncertainty about how much each of them contributes to the resulting increase in productivity. If two methods are used on a given job, for example, and productivity increases by 10%, it is difficult to determine whether the methods contributed equally to increase, or whether one had a dominant effect on it. While knowing this may seem unnecessary, given that productivity improved, this kind of information is helpful when selecting improvement methods to use in other jobs. Another possible disadvantage to using multiple methods is that it may be confusing to employees to adjust to more than one improvement technique at a time.

If more than one method is to be applied to a given job, it may be better to introduce them sequentially, particularly if they are not complementary methods. This reduces the potential confusion to employees and can help in determining what kind of impact particular methods have on productivity. If methods are introduced to a given job sequentially, it is preferable to use methods with the most direct relationship to output, namely job design, new technology, and output-related, incentive systems. Methods with less direct link to output (such as those related to increasing motivation) can be added later (Morley, 1986). Applying additional improvement methods to a job over time makes sense because no method produces continual gains in productivity. Thus, after some period of time, a different method will have to be applied to generate additional improvement.

### **Maintaining Productivity Improvement**



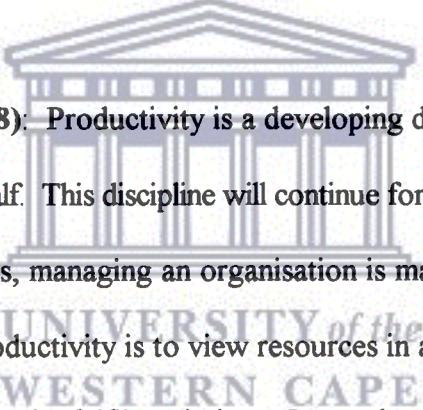
Once improvement methods have been implemented, they should be monitored to be sure they are being used properly; or not having adverse side effects; and are, in fact, improving productivity. Continued monitoring of productivity and service quality is one of the major responsibilities of PIP units after improvement methods have been implemented in all departments. Other functions that should be performed in this stage are: Encouraging departments to continue their improvement efforts; taking steps to facilitate the routine of improvement methods; helping departments update their efforts by keeping informed of new developments (Morley, 1986).

There are many things to be considered while introducing productivity improvement in the public sector. However, the following should be emphasised: Carefully plan and implement introduction of productivity improvement to facilitate acceptance. Active participation of employees in all

aspects of the public service can help overcome resistance to change. People become more committed to a project they feel is their own than one imposed on them. In South Africa there is an organised and strong union movement. These existing structures must be consulted and utilized to facilitate employee participation in the productivity improvement process. Structures should be developed where they are non-existent in order to facilitate and speed up the process.

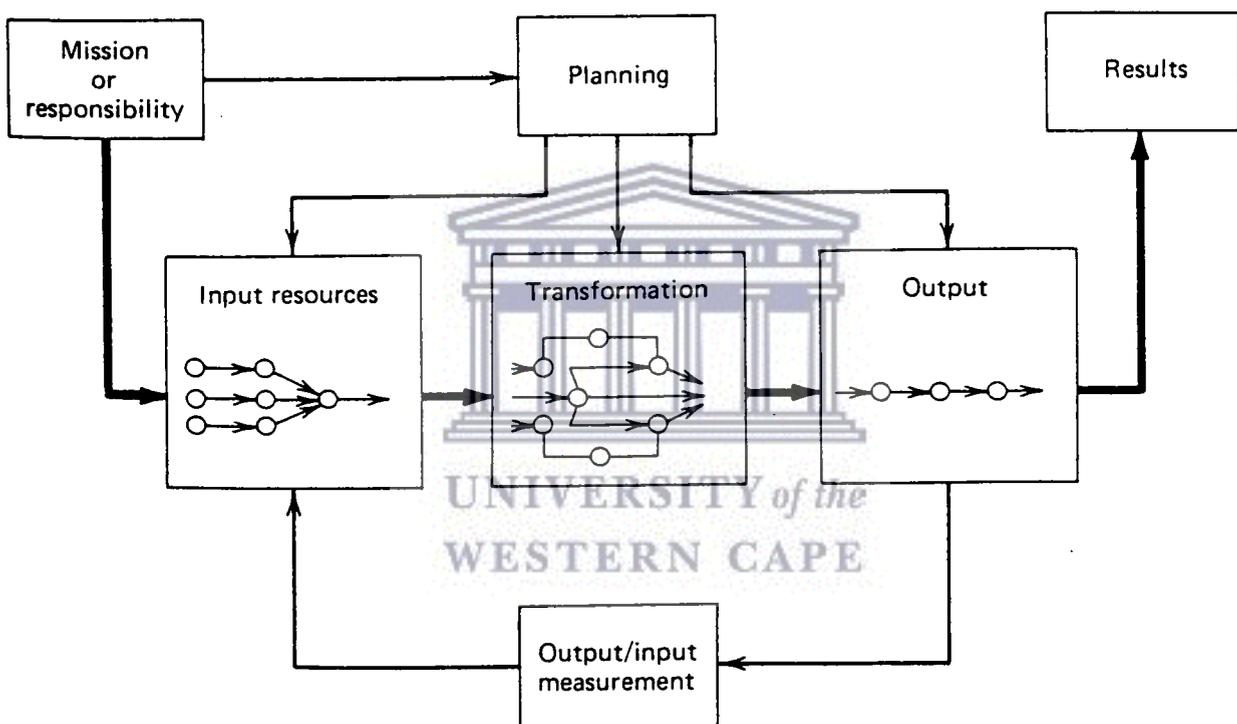
### **Managing Productivity As A Total Process**

#### **Managing Productivity: A Developing Discipline**



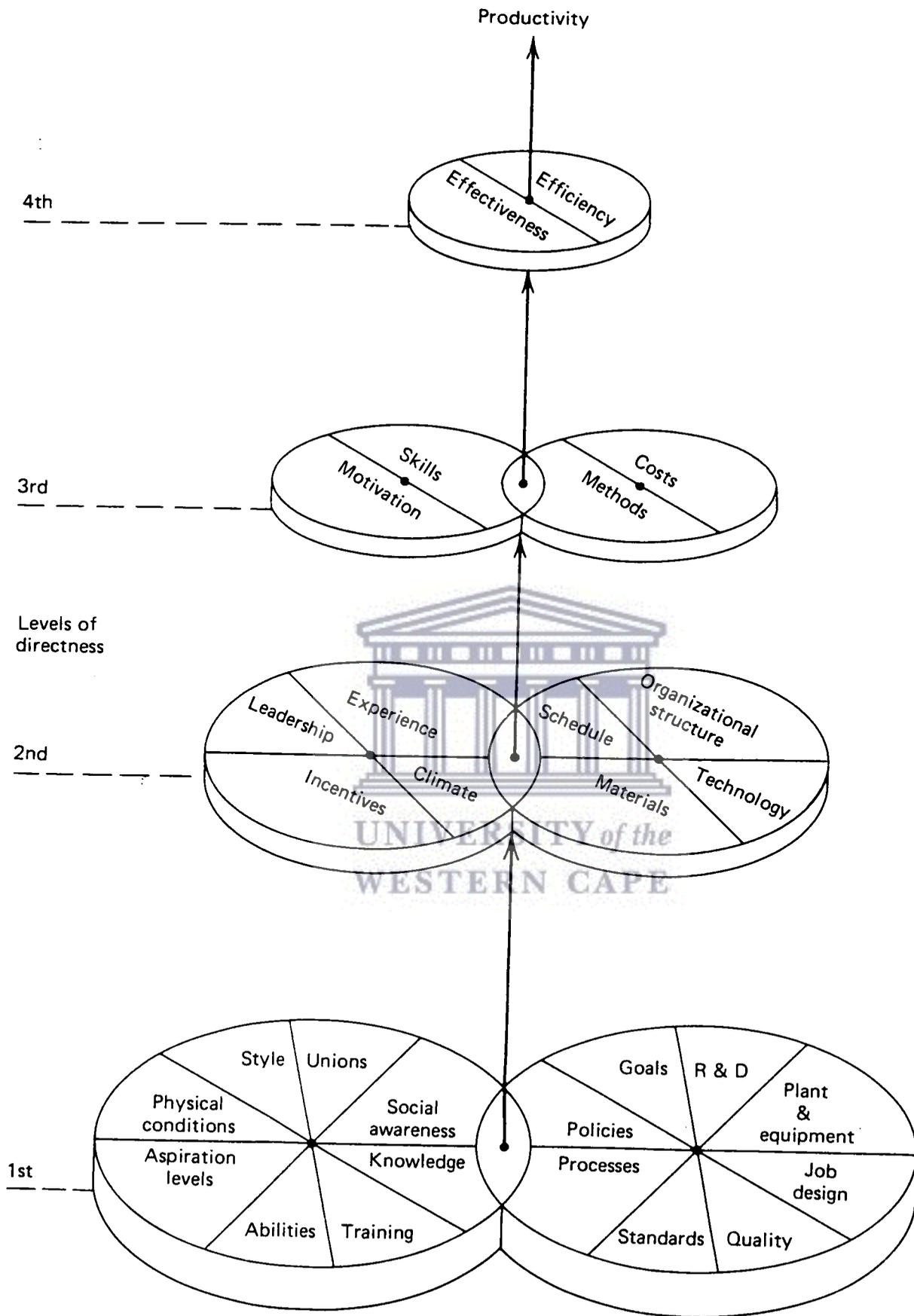
This section draws on Mali, (1978): Productivity is a developing discipline. Unique knowledge and skills are emerging on its behalf. This discipline will continue for some time since scarcity will be a long-term concern. Besides, managing an organisation is managing its productivity. The conceptual view of managing productivity is to view resources in an organisation as aggregated to achieve desirable goals and thereby fulfil a mission. Once a level of these goals are achieved, new levels are set. This goal achievement, resource-use cycle forces the organisation to become what the setters want. The productivity process is a planned series of steps from input through transformation to output with a feedback measurement on how well the outcomes were achieved in terms of the resources used.

Productivity is a synergistic process. That is, a change in one part in the process may set up a series of positive reverberations throughout the process so that it becomes better than its original state. Managing productivity in an organisation is arranging and combining several factors that would yield the highest level of performance with the least expenditure of resources. This is the sum and substance of the concept of productivity.



**Figure 1 The productivity process (Source: Mali, 1978)**

The combination of effectiveness and efficiency is another way of stating the synergistic combination of parts in the productivity process. Effectiveness and efficiency are the results of the interaction and interdependence of many factors rather than one. The factors that directly or indirectly affect productivity are shown in the productivity triangle of figure 2.



**Figure 2 The synergistic productivity triangle**

(Source: Mali, 1978)

The factors are identified by levels as follows:

*Fourth-Level Factors (Affect Productivity Most Directly).* Effectiveness (performance), efficiency (resource usage).

*Third-Level Factors.*

Skills, motivation, methods, costs.

*Second-Level Factors.*

Leadership, experience, climate, incentives, schedules, organisational structure, technology and materials.

*First-Level Factors (Affect Productivity Least Directly).* Abilities, style, training, knowledge, physical conditions, unions, social awareness, aspiration levels, processes, job design, goals, policies, equipment, standards and quality.

The following principles are guides for thought, planning and productivity growth:

**Principle of ratio time measurement.** Productivity is more likely to improve when expected results are measured and made greater in the same time frame that expected results are measured and made less.

**Principle of shared gain.** Productivity increases rapidly when its expected benefits are shared with those who will produce it.

**Principle of expectancy alignment.** The greater the alignment of employee expectancies (needs) with organisational objectives (targets), the greater the motivation to accomplish both.

**Principle of worker accountability.** Accountability for productivity is more likely to happen when employees understand, participate in, and are held responsible for productivity objectives, measurement, and evaluation.

**Principle of focus.** The greater the focus toward productivity objectives on a time scale, the greater the likelihood of achieving these objectives.

**Principle of creating potential productivity.** Productivity gains are more likely to be achieved from situations where the potential for productivity gain is created.

**Principle of continuance.** Productivity tends to continue when achieving an objective does not incapacitate or destroy any of the factors which produced it.

**Principle of work justice.** Productivity is more likely to continue when employees are given equal pay for work of equal value.

**Principle of elasticity.** Productivity tends to increase when the same amount of work is achieved in a shorter period of time.

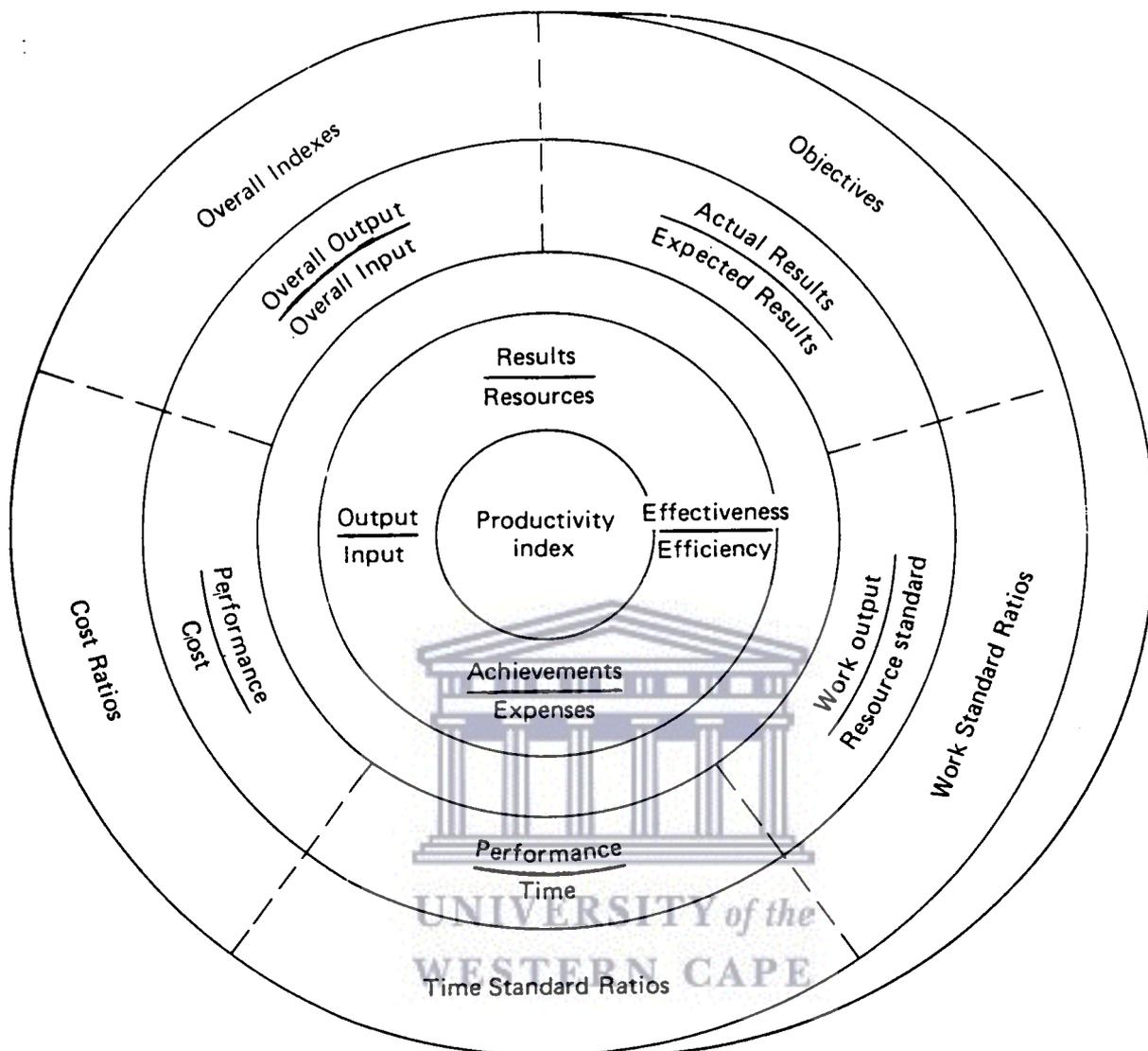
**Principle of resource priority.** Productivity increases when objectives for productivity set the priorities for resource allocation.

## **Measurement: The Productivity Breakthrough**

### **The value of quantified work expectations**

The value of quantified work expectations cannot be overestimated. It is the most effective way to increase the rationality of decision making and managing. With quantified work expectations on the outcomes of projects, programmes and tasks, judgements of many kinds can be made in budget allocations and priorities, programme planning and accountability, and need assessments and focus. But all work cannot be quantified; therefore qualitative assessments often prove useful to evaluate productivity. As a guide, highly structured repetitive tasks tend to be suited to quantitative evaluation. However, creative, abstract, non-repetitive tasks tend to be better suited to qualitative evaluation. Instead of considering quantitative and qualitative evaluation as mutually exclusive, the evaluator should regard them as interdependent - that is, productivity evaluations can be made by both quantitative and qualitative assessment as shown in figure 3.

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**Figure 3 Ratio measures for evaluating productivity in an organisation**

**(Source: Mali, 1978)**

The experienced practitioner need not be convinced that the nature of work in real organisational situations will contain both quantitative and qualitative factors. Hence, evaluating productivity will require a combination of the two: qualitative assessment (a) and quantitative assessment (b). In either event, measurement or evaluation in itself is not results. Measurements that centre on results is what is needed.

## Measurement Using Productivity Ratios

The concept of productivity is not solely performance or solely good utilisation of resources. It is the combination of both. Its measurement compares these two important variables in a ratio of their magnitudes. Productivity is the highest performance possible with the least utilisation of resources.

Five categories of ratios representing the productivity index are suggested:

- i. Overall indexes - measures of the final outputs of the entire organisation related to the resource inputs.
- ii. Objectives ratios - measures of the achievements of individual managers or departments at the end of a schedule related to the objectives that were planned at the beginning of a schedule.
- iii. Cost ratios - measures of performance output related to corresponding costs.
- iv. Work standards - measures of work units or work packages achieved by individual work centres or departments related to expected or normal standards practised.
- v. Time standards ratios - measures of performance output related to needed time. Some of the ratios needed in these variables are:

1. *Output Variables (Results, Performance and Effectiveness)*. Services rendered, revenues, cost benefits, reports completed, failures generated, programmes completed, deliveries made, tasks completed, responsibilities met, benefits, standards reached.
  
2. *Input Variables (Resources and Efficiency)*.  
Budgets, space, land, payroll, costs, personnel, time, fees paid, compensation, equipment, computers, required standards.

The five categories of measurement of the productivity index are illustrated in figures i to v, with the focus on *Government*. These are examples only. Once the basic concept of productivity is grasped, an endless variety of ratios is possible.

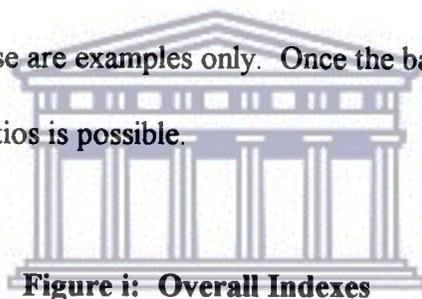


Figure i: Overall Indexes

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- |   |  |
|---|--|
| (a) <u>Benefits</u><br><br>Costs                              | (d) <u>Budget performance</u><br><br>Authorised budget     |
| (b) <u>Legislation authorised</u><br><br>Legislation proposed | (e) <u>Gains of legislation</u><br><br>Cost of legislation |
| (c) <u>Retirements</u><br><br>Employees                       |  |

**Figure ii: Objective Ratios**

- |   |  |
|---|--|
| (a) <u>Highways built</u><br>Highways needed                      | (d) <u>Convictions</u><br>Arrests                          |
| (b) <u>Actual contributed value</u><br>Expected contributed value | (e) <u>Benefits</u><br>Expected benefits                   |
| (c) <u>Settlement of claims</u><br>Total claims                   | (f) <u>Contracts renegotiated</u><br>Needed renegotiations |

**Figure iii: Cost Ratios**

- |   |   |
|---|---|
| (a) <u>Renegotiated contracts</u><br>Cost of renegotiations | (d) <u>Benefits from proposal</u><br>Costs of proposal  |
| (b) <u>Recruits selected</u><br>Costs                       | (e) <u>Legislative enactments</u><br>Cost of enactments |
| (c) <u>Mail processed</u><br>payroll costs                  |   |

**Figure iv: Work Standards**

- |                                    |  |
|------------------------------------|--|
| (a) <u>Benefits from a project</u> | (b) <u>Settlement of unfair labour charges</u> |
| Total task required                | Investigation of charges                       |

**Figure v: Time Standard Ratios**

- |  |   |
|--|---|
| (a) <u>Working time</u>                      |  <p>UNIVERSITY of the<br/>WESTERN CAPE</p> |
| Total time                                   |   |
| (b) <u>Total time lost</u>                   |   |
| Total time worked                            |   |
| (c) <u>Gains from legislative enactments</u> |   |
| Time period of the gain                      |   |
| (d) <u>Service to crime calls</u>            |   |
| Time devoted to crime calls                  |   |
| (e) <u>Benefits from project</u>             |   |
| Time to complete project                     |   |
| (f) <u>Renegotiated contracts</u>            |   |
| Time for renegotiation                       |   |

### Measurement Using Total-Factor Productivity

In principle, total-factor productivity is a ratio of output to all inputs required to deliver the output. This ratio concept moves closer to the realities of productivity in a work process since all resources are "factored" into the calculation. Total-factor ratio is as follows:

$$\begin{array}{rcc} \text{total-factor} & & \text{output} \\ & = & \\ & \text{productivity} & \text{all inputs} \end{array} = \frac{\text{output}}{\text{labour + capital + resources + miscellaneous}}$$

The ratio is useful to larger views of the economy or larger organisations whose complex interplay of variables affecting productivity is not easily seen. The ratio is especially useful when there is a need to evaluate changes that may occur in production, wages and salaries, cost measures, inventories and other inputs. Output may be related to one, several, or all measurable inputs, depending on the purpose and type of comparisons to be made. Frequently output is physical volume of a series of products. Labour input can be direct labour, indirect labour, salaried personnel, utilities labour, or any service departments directly supporting the output. Capital as a component of input would consist of investment, equipment depreciation, securities, or other forms of capital.

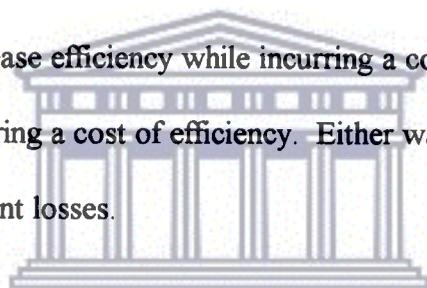
Where  $P$  is the performance factor of a department and  $R$  is the resource factor of the same department, the ratio  $P/R$  is the productivity index. This can be illustrated with a local government as follows:

*Social service:*

$$\text{PI} = \frac{\text{number of clients served}}{\text{social service staff}} = \frac{400}{2} = 200$$

### Measurement Using Management by Objectives

Managing by objectives (MBO) as a process can set up measures of effectiveness (output) and efficiency (input) in the context of a planned work process from start to finish. This implies planning for and control of productivity. MBO as a measurement process forces recognition of the possibilities of how to increase efficiency while incurring a cost of effectiveness or how to increase effectiveness while incurring a cost of efficiency. Either way, the process will reveal the gains while dealing with attendant losses.



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MBO is based on several assumptions that seems to hold true:

1. People perform better when they know where they are going and how to get there.
2. People perform better when they are allowed to influence the decision about where they are going.
3. People perform better when they receive some indication of performance.
4. People perform better when they see others formally attempting to improve their performance.

5. People perform better when rewards are given in direct relation to performance efforts.
6. People perform better when there is a feeling of achievement, recognition, and growth in their work.

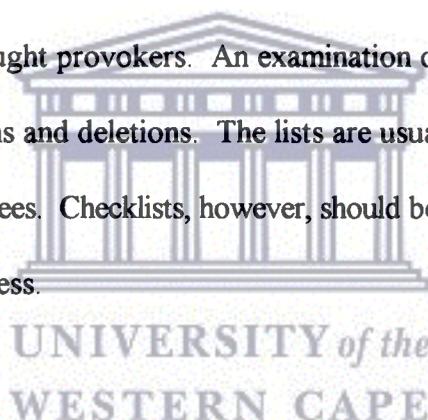
The MBO format can be used to illustrate both quantitative and qualitative evaluative productivity measures:

<b>Duties and Responsibilities</b>	<b>Measurable Objectives</b>
Prepare factual and statistical reports for management information system	Complete all reports and correspondence as requested with no more than 60% error completion rate 10 completed reports PI = _____ 6 errors x 10 reports = 16 rate

**Table 4 Measurement using Management by Objectives**

## Measurement Using Productivity Checklist Indicators

Productivity checklist indicators represent "judged actions" by senior or experienced practitioners that would do the job needed. Checklist indicators may represent a consensus of several practitioners on the important steps or items that would solve a problem or lead to the needed level of productivity. Thus the checklist format is particularly useful in presenting these steps or items. Checklist indicators usually itemize what the person should do. They do not specify how or why the work should be done. It's a framework to ensure all that needs to be done are taken into account before the entire project or task is considered completed. Incidentally, checklist indicators serve as excellent thought provokers. An examination of a completed list presents an overview, but suggests omissions and deletions. The lists are usually easily understood and can be used by inexperienced employees. Checklists, however, should be used with caution since they imply completeness and directness.



Evaluations using checklist indicators can, in an indirect way, measure productivity by specifying the actions to be taken that can measure both performance effectiveness and resource efficiency.

The productivity index is calculated as follows:

$$PI = \frac{\text{Checklist indicators completed}}{\text{Total indicators}}$$

When using this format of evaluation, the situation must be carefully analyzed to ensure a qualitative assessment. The following example illustrate this type of productivity evaluation.

## RESEARCH AND DEVELOPMENT EMPLOYEE

Indicators of a High-Producing Employee	Observed with Employee
1. looks for improvement	X
2. Has record of accomplishments	X
3. Learns a new assignment quickly	X
4. Has a strong will to work, keep busy	
5. Has good work habits	X
6. Has a strong sense of commitment to completing work	
7. Is cooperative in teamwork	X
8. Is open to ideas and listens well	X
9. Uses time effectively	X
10. Takes initiative to do things	
11. Is cost minded	X
12. Has a strong sense of urgency	
13. Gets satisfaction from a job well done	X
14. Contributes beyond what is expected	X
15. Knows the job well	X
16. Sees things to be done and takes action	
17. Is considered valuable by supervisor	
18. Interacts effectively with other people	X
19. Understands organisations and their objectives	X
20. Believes in a fair day's work for a fair day's pay	X

**Table 5** Measurement using Productivity Checklist Indicators

$$\text{PI} = \frac{14 \text{ Indicators observed with employee}}{20 \text{ Total indicators}} = 70\%$$

*Note:* The value of this assessment occurs with a comparison over two or more different periods of time.

### **Managing Productivity By Objectives (MPBO)**

This section deals with this concept of how MPBO can be used to manage productivity directly and deliberately. The measurement technique described previously form its basic idea.

#### **Formulating productivity objectives**

Managers and administrators have tended to regard setting objectives as a relatively simple process. However, it is deceptive. The formalisation of a statement of productivity objectives requires precision of thinking, forecasting, and work measurement. It also requires making commitments involving others. Most managers are not accustomed to such practices. The following guidelines should be followed to assure careful formulation of productivity objectives and the means of its control in the work-flow process:

Productivity objectives must be measurable.

Productivity objectives must achieve single-ended results.

Deadlines for productivity objectives must be set.

Productivity objectives must be attainable.

Productivity objectives must be opportunistic.

Productivity objectives must motivate those who will achieve them.

Productivity objectives must be supportable by the organisation.

Productivity objectives must be controllable.

Productivity objectives must have assigned accountability.

Productivity objectives must be evaluative.

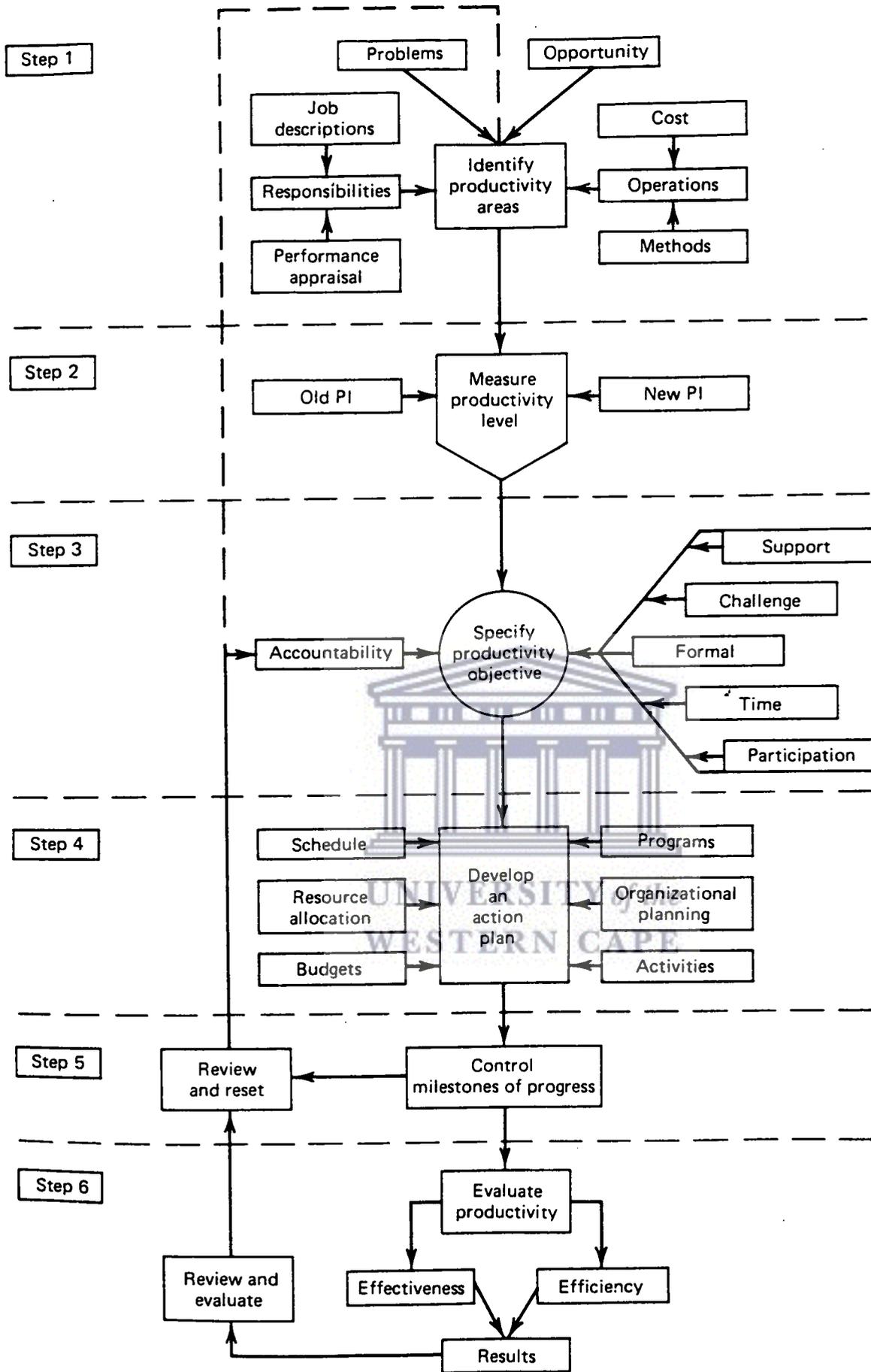
Managing productivity by objectives (MPBO) is an adaptation of managing by objectives.

Managing by objectives can be thought of as measurement by objectives since productivity closely follows a measurement concept. MPBO as a strategy should not be considered in the narrow or limited sense of a technique or tool but rather a managerial process for directing the total organisation to what it wants to achieve during a particular period. Its totality is important because productivity as a ratio of effectiveness with efficiency reaches for total effectiveness and total efficiency of the organisation. It attempts to achieve the greatest benefit/cost ratio for all expenditures. When practised as a process by management, the following six steps help to create a management system for achieving productivity:

- Step 1. Identify potential areas for productivity improvement.
- Step 2. Quantify productivity level desired.
- Step 3. Specify a measurable productivity improvement objective.
- Step 4. Develop plans for attaining the objective.
- Step 5. Control with milestones of progress toward objectives.
- Step 6. Evaluate productivity reached.

The flow diagram (figure 4) shows that all steps are sequentially related for a start-to-finish cycle.

Repetitive cycles can be generated, making the process unending.



**Figure 4 The strategy of managing productivity by objectives (MPBO).**

(Source: Mali,1978)

The six sequential steps of MPBO productivity strategy provide a framework within which to think about and perform the job of improving productivity. This framework helps to meet the large and complex productivity challenges in an organised way. An example of how this strategy is applied is given in the following illustration:

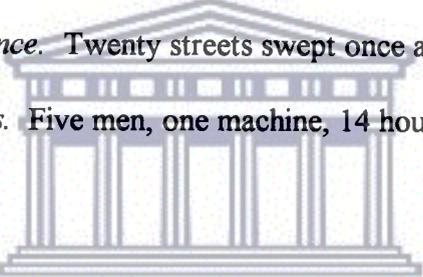
## PUBLIC ADMINISTRATOR

### *Step 1. Identify Productivity Area*

- (a) *Responsibility.* Maintain clean streets
- (b) *Performance.* Twenty streets swept once a week with no visible paper debris.
- (c) *Resources.* Five men, one machine, 14 hours per week.

### *Step 2. Quantify Productivity*

(a) *Before:*



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20 streets	1.5 streets
PI = _____	= _____
14 hours	1 hour

(b) *After:*

40 streets	4 streets
PI = _____	= _____
10 hours	1 hour

*Step 3. Specify productivity Objective.* Reduce cleaning all 450 streets in city from 300 hours to 100 hours (4 streets/hour) by September 1.

*Step 4. Develop a Plan.* Organise into a team approach - two paper pickers, one manual sweeper, one machine sweeper, one follow-up and inspector.

*Step 5. Control with Milestones of Progress*

March	May	July	September
1,5 streets / hour	2 streets / hour	3 streets / hour	4 streets / hour

**Table 6** Measurement using Milestones of Progress

*Step 6. Evaluate Productivity.* By September 1, 450 streets are cleaned within 100 hours (160% productivity improvement).

### **The Productivity Audit**

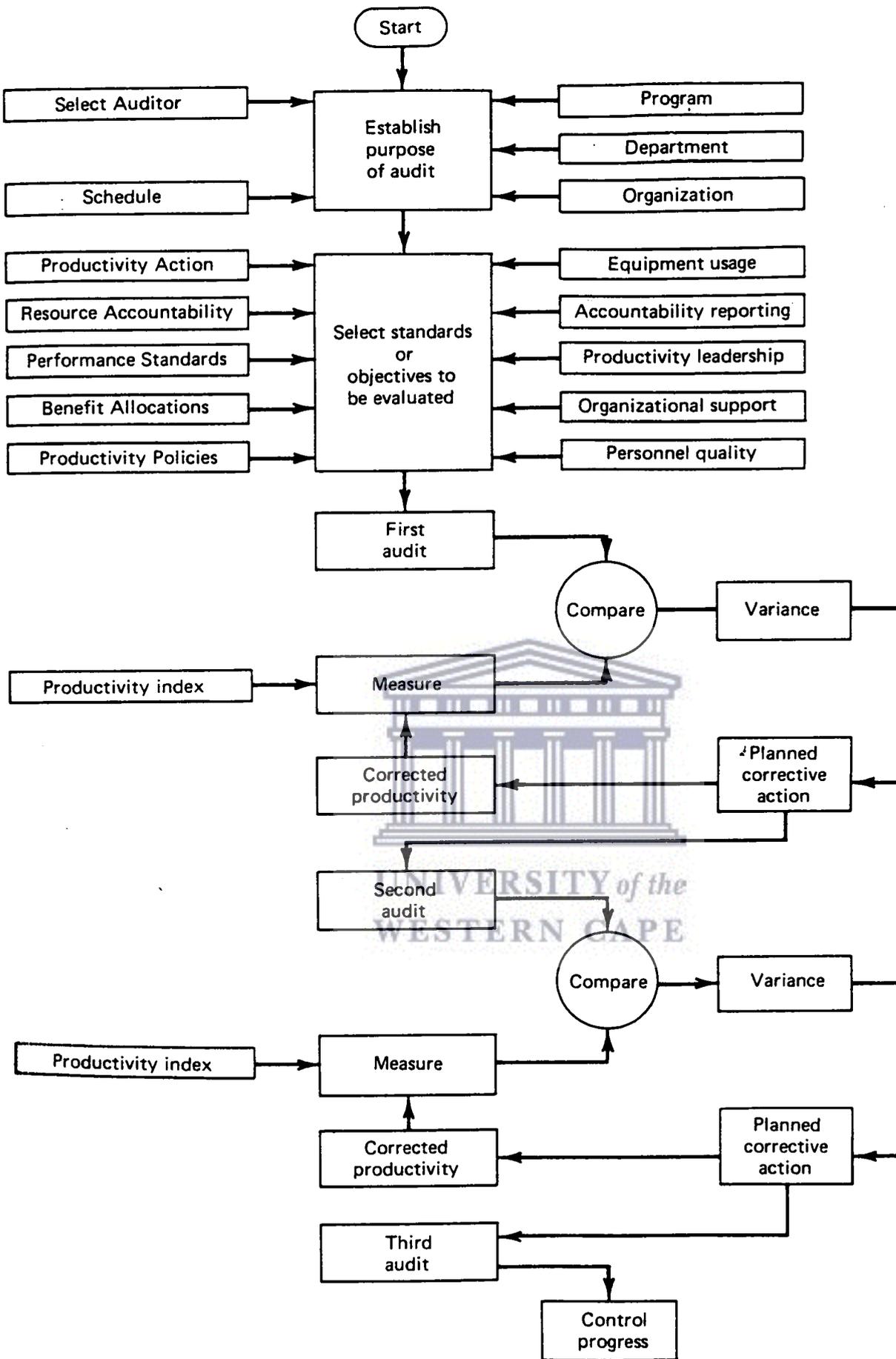
Productivity auditing is a process of monitoring and evaluation organisational practices to determine whether functional units, programmes and the organisation itself are utilising their resources effectively and efficiently to accomplish objectives. Where this is not being achieved, productivity auditing recommends necessary action to correct and adjust shortcomings, poor results, and system deficiencies.

The model for evaluating productivity suggested in this section follows the idea of simplicity, clarity, and manageability. It can be conducted internally. At best, it's a generalised model, but can be adapted and adjusted to a specific organisation, function or programme based on purposes and goals an evaluator wishes to achieve. the evaluation model would have five separate and distinct phases for conducting an audit as follows:

1. *Determine purpose* to be achieved by the audit.
2. *Select standards* as criteria for measurement.
3. *Use measures and compare* with standards. Several cycles may be necessary.
4. *Correct* for significant deviations and variances.
5. *Compile results* into a written report.

These phases are interrelated to give the evaluation process a systems flow from purpose through selecting standards through measuring, comparing, correcting, and reporting as shown in figure

5.



**Figure 5 Model for evaluating productivity**

(Source: Mali,1978)

An outline of the written report that includes all information and reports the results is suggested.

## OUTLINE OF PRODUCTIVITY AUDIT REPORT

### 1. *Summary (Single Page)*

- (a) Purpose and objectives of the audit.
- (b) Results obtained.
- (c) Recommendations for improvement.
- (d) Brief description of qualification of auditor.

### 2. *Main Contents*

- (a) Introduction and background.
- (b) Purpose and objectives of the audit.
- (c) Why the audit was conducted - facts, current practices, and the evaluation.
- (d) Procedure for conducting the audit.
- (e) Analysis and measurement of facts and information.
- (f) Results obtained.
- (g) Conclusions and recommendations.

### 3. *Appendix*

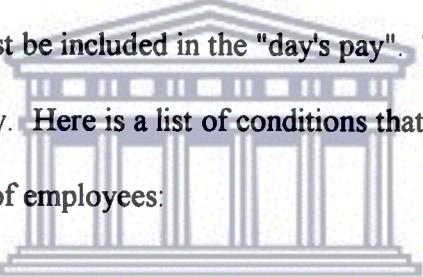
- (a) Tables or calculations.
- (b) Graphs or diagrams.
- (c) Supporting documents.
- (d) Qualification of auditor.

The managerial practitioner steers productivity efforts toward the desirable goals of the organisation. This leadership role requires superior methods that are sharpened continuously to keep the effort progressive and significant. The productivity audit contributes to this end.

## **Managing The Changed Employee For Productivity Improvement**

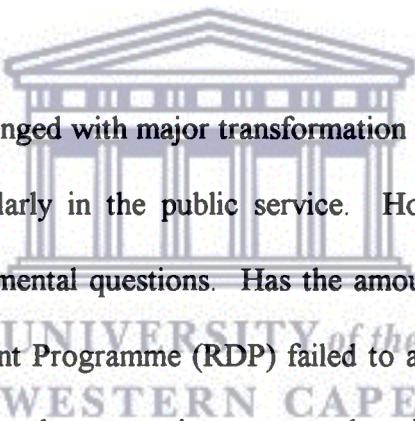
### **Managing overpaid employees**

Runaway inflation has caused the tradition of a fair day's pay for a fair day's work to become an issue. Benefits for employees must be included in the "day's pay". The allocation of benefits are running far ahead of productivity. Here is a list of conditions that indicate that an organisation may be practising overpayment of employees:

- 
1. There is no link between compensation and work output.
  2. General wage increases are given across the board.
  3. Benefits are allocated in the same amount to all employees.
  4. Time is the basis for increasing compensation.
  5. Compensation is dispensed from power moves, threats, or legal acts.
  6. Paternalism is practised.
  7. Compensation is automatically allocated from "escalators."
  8. Appraisal systems are highly subjective.

## Accountability

A new demand for accountability in government has emerged. It derives from a fundamental right of a democratic society that holds that those entrusted with public resources have a responsibility to give a full account of what they did and how well they did it. This demand for accountability is not coming from top levels of management. The new demand for accountability is coming from taxpayers who see an ever-expanding budget to meet, from retirees whose fixed incomes are dwarfed by the cost of living, and from funding sources who want to know exactly what was accomplished from given support.



The government has been challenged with major transformation the likes of which this country has never experienced, particularly in the public service. However, the new demand for accountability has raised fundamental questions. Has the amount of money allocated to the Reconstruction and Development Programme (RDP) failed to accomplish its mission? What about the huge amount of money and support given to our educational system? Has the amount of money and support used for social services, welfare and poverty programmes given these individuals the leverage they needed to become responsible citizens in society? Has the huge amount of money and support given to our government failed to bring the quality and efficiency that government must have? Do our penal systems reform prisoners? There is a demand to know what was accomplished, who accomplished it, what resources were consumed in the process, and if it could be accomplished with fewer resources? Billions of rand are spent, yet do conditions improve in proportion? Are we getting value for our money?

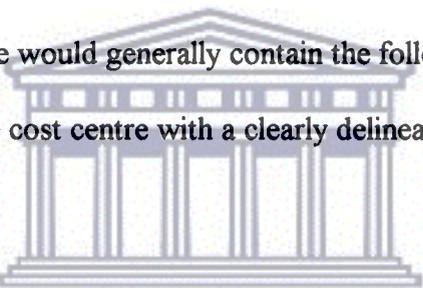
The traditional view of accountability of controlling and reporting is only partially adequate for today. New dimensions have been added. They are expectancy and achievement. The new concept of accountability is evaluation based on an agreed-upon role of expectation. A new style of management is needed.

### **Zero-Base Planning and Budgeting.**

If the new demand for accountability is saying anything, it's saying that commitment to the past must cease. Perpetuating programmes because of their historic value will be analyzed in terms of current critical priorities. Spending will not be allowed on the basis of past decisions but on an agreed-upon level of expectations of needs and results.

The traditional line-item budgeting practice begins with the past level of expenditures as a base and concentrates on projected increases or decreases from that base. Historical data is related to the budget year. Such a procedure leads to an examination of only a small portion of the overall budget, the increases or decreases, rather than a close scrutiny of every facet of it. This means budget analysis concentrates on justifying increases only. This traditional approach is based on the assumption that every function being performed is effective and essential. It provides an "institutionalised framework" for perpetuating past commitments. In many cases the past is twenty, thirty or forty years ago. In South Africa, past assumptions may have been valid for perpetuating the system of apartheid. They are certainly not valid in terms of new priorities and concerns. Previous methods for performing tasks have become inefficient, outdated, or unnecessary.

Zero-base budgeting does not carry past commitments or perpetuate a base budget that has been "institutionalised". The process starts with a zero base and requires each programme or functional manager to demonstrate precisely and convincingly the need for the function, department, programme, or project under his or her supervision before funds are provided. Management must delineate the results of achievements that will be delivered if funding and support are given. Distinct units of work or projects are analyzed, ranked in order of priority, and set up under a programme cost centre. The programme cost centre has identified goals or missions. These units of work could be called decision packages. A decision package is a document that contains all the information needed by funding sources to approve or disapprove it for budget entry. The information in a decision package would generally contain the following information and would be classified under a programme cost centre with a clearly delineated mission or goal.

- 
1. Objective to be pursued.
  2. Measures of effectiveness and efficiency.
  3. Alternative courses of action and the reason for selecting the best course.
  4. Benefits when objective is achieved.
  5. Consequences if objective is not pursued or existing activity is eliminated.
  6. Costs.
  7. Time schedule.

The following illustrates a decision package in zero-base planning and budgeting:

**NAME OF DECISION PACKAGE: REDUCTION IN MUGGINGS**

Programme Cost Centre: Police precinct

Goal of Centre: Reduce crime in 30th block

1. *Objective.* Reduce mugging 20% in the 30th block while reducing 10% costs by September 1, 1996.

2. *Measurement*

(a) *Before:*

		80 to 70 muggings			1,25 muggings
PI	=	_____	=	_____	
		8 officers (4 patrol cars)			officer

(b) *After:*

		70 to 56 muggings			2,33 muggings
PI	=	_____	=	_____	
		6 officers (patrolmen)			officer

3. *Course of Action:*

- (a) Increase number of patrol car surveillance.
- (b) Set up foot-officer surveillance.
- (c) Install new street lights for better illumination.
- (d) Institute awareness programme through television, radio, and newspapers.

- (e) *Best course of action:* Foot-officer surveillance is the most effective way to pursue young muggers on the street.

4. *Benefits*

- (a) Reduction in mugging rate.
- (b) Rehabilitation is more likely for a young mugger than for an older hardened criminal.
- (c) Contribute towards safer street.
- (d) Avoid potential loss of life.

5. *Consequences*

- (a) Mugging rate increases.
- (b) Non-apprehended mugger is encouraged to continue.
- (c) People refusing to walk and shop will affect sales tax potential.
- (d) Accidental killings are more likely.

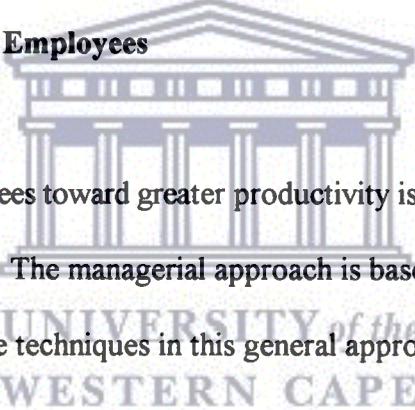
6. *Costs.* Costs reduced from R96 000 to R72 000.

7. *Schedule.* To be fully operational by September 1, 1996.

Zero-base planning and budgeting sharpens accountability. Decision-makers at all levels of government are able to make reasonable and responsible decisions regarding how to set up and allocate a limited budget toward a wide range of priorities. The practice of MPBO has several advantages:

1. Gives focus on productivity.
2. Institutes controls for resource allocation.
3. Forces evaluative measures into plans.
4. Provides accountability for resources consumed.
5. Increases productivity mindedness.
6. Heightens motivation for productivity.
7. Encourages preventive rather than corrective management work.
8. Forms a natural vehicle for progress and evaluation reviews.

### **Managing The Motivation Of Employees**



The search for motivating employees toward greater productivity is intense because the problems of motivation are here and now. The managerial approach is based on the view that there is no one best way to motivate. Three techniques in this general approach are:

*Contingency Approach:* Motivate by analysing the situation and selecting elements from a vast array of possibilities and form a model that will work for a given situation.

*Systems Approach:* Motivate by developing a systems model for an organisation in which the current motivational process is identified and proceed to find the change agents for its improvements.

*Expectancy Alignment Approach:* Motivate by planning and obtaining the closest alignment (needs coincidence) possible between employee expectancies and organisational objectives.

Motivating with expectancy alignment is the approach most favoured. Motivators are job conditions that satisfy the needs of both employees and the organisation. Where job conditions can be arranged to meet the needs of both parties, a motivator emerges. Several motivators with a wide appeal arise: challenge, independence, recognition, participation, achievement, innovations, enlargement, enrichment, overview, learning, development and growth. The following five steps represent a process for motivating employees with expectancy alignment:

1. Establish the productivity objectives to be achieved.
2. Identify organisational needs from objectives.
3. Acquire insights into employee needs.
4. Decide on motivator to be used.
5. Establish an alignment between organisational needs and employee expectancy with motivator.



### **Incentive Payments**

Bonuses and incentive payments should be related to performance and productivity. Through this programme, state employees are eligible for awards. A suggestion indicating the problem, the solution, and estimated savings could be submitted to the Ministry for the Public Service and Administration and forwarded to the appropriate department for evaluation. If the suggestion is approved and implemented by the department, the person who made the suggestion becomes eligible for an award equalling 10% of the savings up to R1 000. (The award is funded from the savings generated through the suggestion).

An employee-of-the-month programme could be created to recognize the outstanding accomplishments. Each government department should have the opportunity to nominate someone as state employee of the month. Professor Duncan Edmunds, a Canadian Consultant, suggests that a medal of award presented by the state president, or a high government official is a greater incentive than money (Edmunds, 1993).

### **Is the work ethic dead?**

The work ethic is not dead, but may change as conditions change. Under the apartheid system with its separate administrations where gross maladministration and corruption was rampant, the general work ethic naturally suffered severely. The democratically elected government has an enormous challenge of transforming the public service and thereby having to introduce affirmative action and rationalisation. This in itself creates great uncertainty and severely hampers the general work ethic. Transformation and reform is a necessary but painful process. Much work need to be done in order to engender a healthy and productive work ethic in the public service.

Universally work means: Creating an existence by increasing the quality of life; giving to those who are less fortunate; shaping an identity and individuality; doing something important and meaningful; reaching for self-fulfilment.

## **Tools and Techniques for Getting Greater Productivity**

This section discusses various techniques, that may also be described as tools, that may assist in improving productivity. These are certainly applicable to the South African context.

### **a. Managing time for improving productivity**

Managers probably put in more hours than any other occupational group. However, this does not mean they know how to manage time better than any other group. Since time is and will be a limited resource, the manager of productivity must be an effective time manager. The productivity manager must know how to budget and schedule this scarce resource or experience the waste of valuable opportunities for important accomplishments in the organisation.

The following tools provide effective ways to manage time:

The productivity calendar - a monthly strategy for getting results; time system overview of the total situation; biological clocks - finding the best time. These tools are strategies on how to allocate time as a resource toward greater results. Time schedules which include well defined objectives is another way to coordinate productivity.

Serious questions have been raised on the use of overtime and its effects on productivity. An organisation may not be getting an hour's real output for the equivalent premium pay because of the following reasons:

Adding staff causes productivity to decline.

Human efficiency drops with longer work-hours.

Work-week patterns affect optimum performance.

The following guidelines should be considered when handling overtime for productivity:

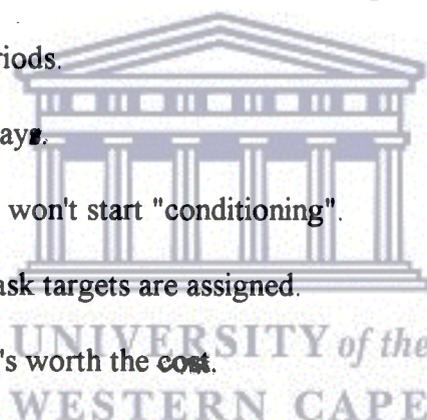
Schedule overtime for short periods.

Schedule overtime for certain days.

Schedule overtime only when it won't start "conditioning".

Schedule overtime only when task targets are assigned.

Schedule overtime only when it's worth the cost.



## b. Quality circles

Denhardt (1991) provides us with valuable lessons from a Productivity Improvement Programme in the State of Missouri. Quality circles are small groups of people who do similar or connected work and who meet regularly (perhaps one hour a week) to identify, analyze, and solve work-related problems. The State of Missouri shows that the savings generated by the programme have been substantial. Also important, have been the changes in work processes that have resulted in improvements in the quality of service within an agency. Finally, the quality circles programme

has focused greater attention on the possibilities for improving the quality of service and the productivity of state agencies.

**c. Public participation in planning**

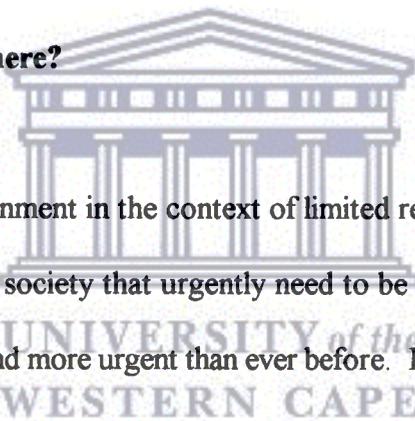
The forms of citizen involvement in administration do not usually extend to the politically powerless and economically deprived clientele of government programmes (Garson and Williams, 1982). The largest possible participation in public decision making can be secured by the acceptance of the ethical principle that each and every individual citizen of a country has the democratic right to participate in decision making in all those areas where his or her life is being influenced, and this includes almost all governmental activities (Gildenhuys, 1987).

Citizen participation includes participation in the process of public policy making. More directly, citizens should be involved in the formulation, implementation and administration of programmes. The civics, trade unions and all organised as well as unorganised citizens must be consulted with regard to their participation in programmes of the public service. This could lead to a more democratic policy process that is more responsive and more representative. Participation could result in a broadening of programme planning, for example, participation makes it possible to weigh citizen preferences against technical considerations (Garson and Williams, 1982).

The broader the base of citizen participation in the planning process, the more potential influence the planner and citizens may bring to bear on public policies and plans. The broader the base of citizen participation, the more potential influence the planner may bring to bear on the social choices of the citizens. Local planning goals will be more congruent with community desires if

discussed widely by participant groups and then communicated to the decision-making body. A one-way flow of objectives from a central decision-making body to a planning agency will tend to under-represent the interests of some community groups. The more public consultation techniques are used, the more the planning programmes may attract public support. The more the planning process facilitates citizen participation, the more the community may become aware of the planning function as a democratic and community force. These propositions provide a basis from which to explore the ramifications of public participation, both as a concept, and as a decision making technique (Fagence, 1977).

**d. Where do we go from here?**



The growing complexity of government in the context of limited resources, high costs of services and the gross inequalities in our society that urgently need to be addressed, makes the case for managing productivity stronger and more urgent than ever before. Pressures from most segments of our society are growing so that breakthroughs in productivity are necessary if the standard of living and the quality of work life for the majority are to improve.

**e. Acquire productivity know-how**

A manager should acquire as much knowledge and skill as is available on the nature and practice of productivity. This does not preclude the opportunity to innovate, but a good starting point is to "catch up" with others who have penetrated further into this discipline. It must be prudent to get some practical advice and guidance by visiting public and private organisations internationally in which formal programmes are already in operation. The objective would be to review

successes, failures, obstacles, hurdles, achievements, disappointments, and so on. Attending courses, meetings, seminars would help.

**f. Set up a task force**

The responsibility of productivity improvement does not rest with top management nor with only employees; it rests with all members of the organisation. Such a pervasive statement of responsibility may go against specified criteria of accountability, but too often the "buck is passed" to one person or group and then things continue as usual. A task force of representatives of all segments of the organisation - management, union, employees, and supervisors - can be a healthy way to stir up attitudes that productivity will be a total organisational approach. The task force will collaborate on several important actions:

1. Institute an evaluation procedure to diagnose the strengths and weaknesses in relation to productivity and the quality of working life.
2. Train and set up the development and collaboration of the entire organisation to make productivity work.
3. Identify the specific elements of productivity that are critical and unique to the organisation. Careful attention must be paid to the factors that influence productivity and how they do so.

4. Design a formal programme with productivity objectives and evaluation within a time schedule. The task force should recognise that this effort will not be completed within 1 year. In fact, the full operation of a formal productivity effort may take as much as 4 to 5 years.
5. Propose policy changes to top management for getting the programme moving. These policy changes must be accompanied with questions as to how and why and how it will affect the organisation.
6. Communication should take place between local, provincial and national government where there is a relation in the operation of the programme. Legislative policy changes may be needed to keep the programme moving.

**i. Use of Consultants**

Individuals or organisations with the know-how and experience can often work wonders in getting a programme under way. They can speed up the time needed for the "diagnostic phase" and make suggestions for the "prescriptive phase". They can bring to the organisation skills and techniques that might not be available within the organisation. The outsiders might provide objective views that may be available for generating alternative ways and opportunities. They can stimulate the speed and vigour the programme may need to keep progressing.

**j. Propose and get top management involvement and support**

Any kind of organisational thrust, such as a formal programme of productivity improvement, must involve the top management personnel in the organisation. Unless the proposal for productivity improvement is persuasive and worth the effort, organisations will continue as they have in the past. No one needs to be told that our period of time is fraught with many perils as well as many opportunities. This fast-moving world requires managers to make decisions like never before. The central issue facing the manager with respect to productivity is to keep it where it is or to move it to where it can be.



## CHAPTER 3

### TOWARDS A MODEL FOR EFFECTIVE PRODUCTIVITY

#### The Quantification of Productivity Gains

##### Structure and Procedure

The basis for analysis is the NIEP model on the South African Budget and the NIEP Report on the Quantification of the RDP, (1994). The Department of Defence is used as a case study. The programmes and expenditure patterns since 1993/94 are examined. The potential for achieving productivity gains by restructuring the budget are also explored. Budget estimates and savings are projected for 1996/97 and 1997/98.



The quantification was done under the existing macroeconomic constraints and budget cycle approach to establish what RDP programmes can be delivered within the present constraints. This creates the possibility of using the present budget as a means to kick-start the RDP process. The only way to establish what is possible within the existing budget is to identify savings, resources and capacity that can be released for specific RDP projects in the 1996/97 fiscal year. On a line-by-line examination of the 1993/94 and 1994/95 budget data, and the 1995/96 estimates it was found that savings, resources and capacity can be released by the RDP programmes through:

Restructuring and reprioritizing the budget programmes by making small cuts in what were apartheid-serving programmes and reallocating the human, material and financial resources

released for high priority RDP programmes/projects; achieving efficiency and productivity gains by identifying those votes which most resemble RDP objectives and reallocating human, material and financial resources on a line-by-line basis to these votes for high priority RDP programmes/projects.

The technical procedure of quantifying the RDP can be summarised as follows:

The expansion and extension of the MERG/NIEP Model to accommodate the RDP framework. The incorporation of the 1993/94 and 1994/95 budget data and 1995/96 budget estimates into a spreadsheet format that can be integrated into the model. The determination of a set of measurable RDP socio-economic criteria for the RDP programmes. Utilising the model to calculate a set of corresponding coefficients/multipliers for the criteria and to use these coefficients to restructure and determine budget priorities. Subjecting each line item of an appropriate programme of a budget vote to the criteria to determine savings based on efficiency gains and a reduction in existing programs which have been apartheid-serving. Unpacking each line item for each vote to identify wastage and misallocation and to determine further savings which can be reallocated for the RDP programmes/projects.

### **Data**

The following method was used in calculating the initial 1996/97 RDP estimates:

The Government's existing macroeconomics assumptions were used. (see Ministry of Finance, Reserve bank and IMF/TEC agreement as published in the press). The 1993/94 and 1994/95 data, and the expenditure and finance estimates for 1995/96 as contained in **(South Africa, 1995c)** were used. Within the estimates of all Programmes, the amount of savings that can be

liberated from each line item for each budget programme was calculated. The government estimates were adjusted by subjecting them to efficiency and productivity gains and relatively small cuts in some blatantly apartheid-serving programmes.

### **The Quantification Process**

The Government's 1993/94, 1994/95 and 1995/96 Budget Estimates were adapted into a spreadsheet format according to ministry/function and programme (See Appendix 3). This was done firstly; to identify the possible budget programmes into which RDP programmes/projects may be integrated, and secondly, to facilitate the calculation of savings, and subsequent options for the reallocation of these resources to the identified RDP programmes/projects in their respective departments or ministries. If this is effectively done, a special Vote for an RDP allocation can then be presented. An integrated and comprehensive data bank was then established. The Government's Budget Estimates were integrated into the MERG/NIEP Macroeconomic Model.

### **The Budget Criteria for RDP Programmes**

The first step in elaborating a budgetary process which takes cognisance of the RDP was the establishment of budget criteria to integrate the RDP objectives and extend the MERG Model to accommodate these criteria. Thereafter each criterion is given a multiplier or coefficient by which all the programmes/projects are assessed. These multipliers are derived from the MERG Model. The multiplier values are weighted for each programme according to the relevant cost category.

Each RDP programme and/or project will be ranked in accordance with its impact on the criteria presented below:

- a. **Economic activity or GDP growth.** A programme/project must have strong crowding-in effects for the private sector and it must stimulate community sector initiatives. This means that every Rand of public sector investment must stimulate an equal or greater amount of private sector and community sector investment. Community sector initiatives and contributions must be transformed into measurable indicators for this purpose (e.g. the number of person-hours worked; the costs of the use of the environment and natural resources; and so forth).
- b. **Skilled labour requirements.** A programme/project must use the skilled labour which is available in the area where it is located.
- c. **Disadvantaged workforce and population groups.** A programme/project must target historically disadvantaged population groups.
- d. **Un-utilised capacity.** A programme/project must use capital resources which are already installed.
- e. **Balance of payments.** A programme/project must have a low balance of payment impact. It must require no foreign exchange allocations to be implemented.



- f. **Tax claw-back.** The programme/project must produce relatively high efficiency effects from tax collection.
- g. **Training programme potential.** The programme/project must have a high potential to generate a large proportion of its labour requirements from labour market training programmes.

### Aspects of Coefficient Calculation

The coefficient for criteria (1) was obtained by dividing the change in GDP the model produces by the increase in personnel expenditure (public sector wages and salaries). As the model is dynamic there will be a particular multiplier value for each year. As a working assumption, when the total budget is being evaluated the peak multiplier value will be used. This is because at any point in time the weight of the budget will consist of mature programmes which have been in operation for a number of years. Consistency demands that for the new programmes the first year multiplier be used.

The other model based criteria will be calculated from the same model. The skilled labour impact of the budget will be divided into two categories. The first category will be concerned with the skill requirements for each programme within the public sector. The index for the skilled labour requirements for each programme was constructed from the number of employee/income level data contained in the government's Expenditure Estimates.

The second category of skilled labour requirements focuses on the Economy wide impact of each programme. The NIEP model is used to assess the Annual index based on the occupational structure of each industry in the economy. The economy wide aggregate index was obtained by weighing the individual industry indexes by their employment shares. The criteria coefficient was taken to be the change in the aggregate index divided by the expenditure perturbation imposed on the model.

The capacity utilization coefficient was based on the size of the private investment per million rand of expenditure perturbation. The greater the investment response, the greater the changed expenditures will fall on industries with relatively low levels of excess capacity available.

The balance of payments coefficient is calculated by dividing the change in imports less the change in exports by the corresponding expenditure perturbation.

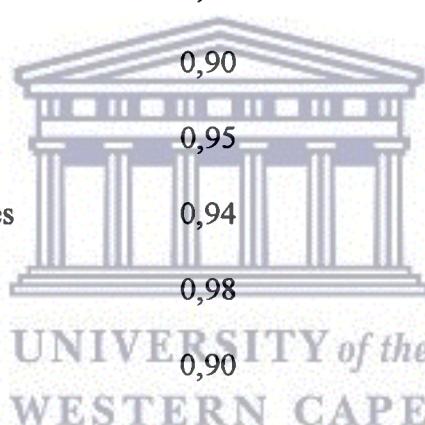
The Tax claw-back coefficient is obtained by dividing the change in government taxation revenue by the change in the appropriate expenditure change.

In relation to the disadvantaged groups, criteria for existing programmes are assigned a value out of ten in terms of their direct impact on disadvantaged groups. RDP programmes are assigned a value of unity.

### Adjustment Factors/Coefficients for the 1996/97 RDP Budget

The budget items in each program of each ministry were adjusted by the following co-efficients.

	Co-efficients	Percentage Change
Personnel Expenditure	0,97	- 3,0
Administrative expenditure	0,96	- 4,0
Stores and livestock	0,95	- 5,0
Equipment	0,90	-10,0
Land and buildings	0,95	- 5,0
Professional and special services	0,94	- 6,0
Transfer payments	0,98	- 2,0
Miscellaneous expenditure	0,90	-10,0



These adjustments factors/coefficients were calculated according to the procedure laid out in **Appendix 1**. They were used to adjust each programme of each ministry vote in order to obtain the necessary efficiency and financial savings to finance the RDP. These adjustments applied to most ministries. However variation in the coefficients was introduced in ministries where different adjustments were deemed appropriate.

## Estimates for Resource Savings

### The Procedure:

1. The 1993/94, 1994/95 and 1995/96 Budget data of expenditure estimates was put into spreadsheet format.
2. The Department of State Expenditure categories were retained [see "The Introduction" to **Estimate of Expenditure to be defrayed from the National Revenue Account** for details] with regard to; the programme structure with general objectives, programmes as per relevant departments and, unit costs and estimated amounts needed for each programme; standard items as a function of estimated expenditure for various goods and services required to attain department objectives; standard classification of item structure as a function of anticipated "inputs" necessary to attain stated objectives. This classification includes:
  - Personnel expenditure
  - Administrative expenditure
  - Stores and livestock
  - Equipment (heavy, non-consumable, etc.)
  - Land and buildings
  - Professional and Special services
  - Transfer payments
  - Miscellaneous (items not covered by above)

(Clearly, this type of classification may be open to abuse. Each item can be used to conceal other expenditures. The Auditor General's Reports should be read in conjunction with the Estimates of Expenditure books).

## **Budget Assumptions**

The projected estimates of expenditure are very conservative. With more time resources and information it would be possible to push more forcefully for greater savings, cuts and changes within Programme allocations. In the final exercise it is shown that the programmes can be financed within the budget.

The projected estimates of expenditure for 1996/97 and 1997/98 clearly show the combination of productivity gains, financial savings and cuts to the 1995/96 estimates on line by line adjustments. The following funds could easily be transferred from the budget of the Department of Defence to the following RDP Programmes:

**Security:** It is possible to have major cuts in the defence budget which could be transferred to the police budget. Without security, community welfare will never improve. The Government should transfer R1,0 billion out of the defence budget to police and community security functions to counteract crime and violence in communities.

**Skilled Labour Accumulation:** In the long term the RDP will not succeed unless there is an adequate pool of trained personnel, such as, medical personnel; teachers; civil engineers, and so forth available to support RDP Programmes.

The Government should allocate R0,7 billion to establishing and upgrading training facilities; recruiting experienced teaching staff, and running bridging courses for potential students.

**Removal of Transport Gaps:** Many towns in South Africa are denied access to employment opportunities because of absence of basic transport services. The Government should put aside R0,5 billion to remove these gaps in the transport system. As a stop gap measure, the government should support the extension of the bus and mini-bus system and rehabilitate the train system where necessary.

**Local Government:** The Government should put aside R0,3 billion (funded by a transfer of resources from central government) to help establish local/regional administrations and re-establish the local government tax base.

### **Efficiency/Productivity Gains**



The major cost category target for efficiency was **personnel expenditure**. The South African Public Service lags behind most other countries in work ethic, full use of modern information technology, and horizontal organisation of structures. Over the medium term removing these deficiencies will allow a 20% gain in efficiency to be achieved.

To kick-start the efficiency gain process, the government will demand that the present gain in personnel is reallocated to new RDP Programmes. Thus the resources released will be absorbed to support RDP programmes administratively. For example, in the formerly white, coloured and indian education systems the efficiency gains will come from relatively small increase in class sizes and some further increase in fees. In the health sector, gains will come from increasing patient and out-patient rates. In both these cases, changes will be governed by a strict application of means tests.

**Administrative expenses** are mainly related to the size of personnel expenditure. Massive efficiency gains in personnel expenditure will translate into financial savings in the administrative cost category. However the government should demand a further 1% gain in administrative cost savings from targeting items such as travel and entertainment expenses.

The government should demand financial savings of 20% from the 1995/96 Defence estimates for **stores and livestock, equipment and land and buildings**. In many instances the reductions will represent efficiency gains because the service and capital resources were duplicated and capacity was not fully utilised.

For **professional services** the new government will achieve success in its broad financial savings by only allowing outside service to be provided under stringent tender procedures and only if the costs of these services are not too far beyond the 1993/94 costs. In general, savings can be made by strict monitoring for over-servicing. It is significant that the present Government expected to cut the professional service cost by 6% in the 1995/96 estimates. Professional service costs for teachers have been increased marginally, while medical professional fees have been marginally reduced.

For **transfer payments** the government will expect different tiers of provincial and local government to generate some efficiency and financial savings as is the case for central government. With regard to household transfers the government will scale down on upper and middle class welfare payments. These cuts could come in the form of reduction in tax expenditures rather than in reductions in transfer payments.

The Central Government would expect to be a model for the other tiers of Government. Hence a modest 2% saving were required for the 1994/95 budget. Bigger savings are now expected as other tiers of government are expected to follow the central government lead. Therefore, a massive 50% saving is required for the 1996/97 estimates for Defence.

**Miscellaneous expenditure** is where most administrations hide their additional funds for financial asset accumulation. The government should demand a 10% saving from the 1995/96 estimates.

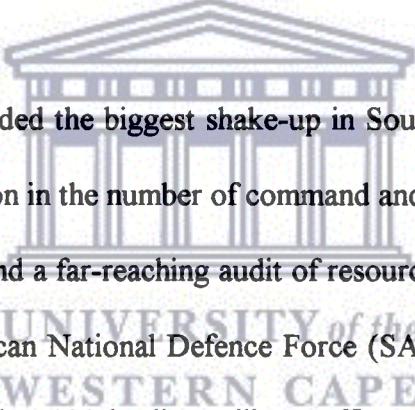
A massive 50% cut in the blatantly apartheid-serving **Programme 7 of the Special Defence Account** in the Defence Vote is possible and should be demanded. Since 1993/94 funds were allocated for transfer payments only.

The co-efficients and their percentage equivalents used to calculate the efficiency/productivity dividend are contained earlier in this section. These coefficients or multipliers were derived from the application of the RDP criteria as explained earlier on.

In addition to the efficiency/productivity dividend the government will demand certain cuts in existing programmes that are blatantly apartheid serving. Expenditure for these programmes in the 1996/97 estimates are based on the assumption that present structures and institutions will remain unchanged. The new government cannot accept this assumption, certain categories will have to come under scrutiny and cut. The resources released will have to be reallocated to RDP programmes. Thus, according to the calculated estimates, savings of **R2,5 billion from the 1995/96 Defence Budget** is possible. However, provision is made to factor in the growth and development multipliers which flows from the initial injection of the First RDP Budget.

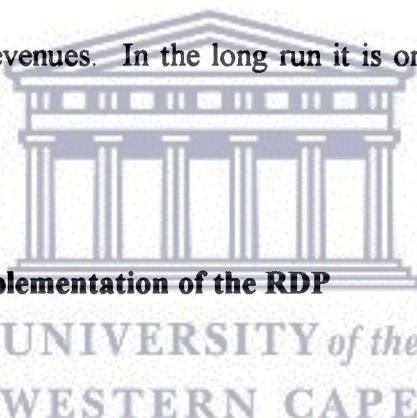
## **National Security Policy and the RDP**

The White Paper on National Defence, (South Africa, 1996b) recognises that the greatest threat to the South African people are socio-economic problems like poverty, unemployment, poor education, the lack of housing and the absence of adequate social services, as well as the high level of crime and violence. There is consequently a compelling need to reallocate state resources to the RDP. It is accepted that the South African National Defence Force (SANDF) need to be rationalised and that military spending need to be contained without undermining the country's core defence capability.



The government has recommended the biggest shake-up in South African military history. It could result in a drastic reduction in the number of command and control bases, a total revamp of the part-time forces (PTF) and a far-reaching audit of resources. Recommendations on the future shape of the South African National Defence Force (SANDF) have been made to the Minister of Defence by more than 120 leading military officers, defence industry executives, politicians and defence analysts at a recent defence review conference. The proposals are in addition to the already announced rationalisation of the SANDF, which is scheduled to take three years to complete. It will cut the military from 131 000 to about 60 000. The recommendations will most probably have the greatest impact on the PTF, consisting of commandos and Citizen Force regiments, which make up the bulk of the country's military strength. Three commissions, established at the defence review conference with about 40 members each, recommended independently that an overhaul of the PTF system was necessary (The Argus, 1996).

It is important to note that efficiency and productivity gains do not necessarily imply retrenchment of staff or a cut or increase in wages. These gains or savings are made on the basis of a reallocation of staff functions for specific RDP programmes and projects. This has been calculated on the basis of the RDP criteria which imply achieving an efficiency /productivity dividend from maximising the effort within the same budget allocation. However, transition costs are substantially greater than what have so far been included in expenditure estimates. For example there were substantial pay out costs for personnel who have been judged unwilling or incapable of serving under the new government. Furthermore, the processes of restructuring and rationalisation still have some way to go, and so do the costs. The calculations are based on assessment expenditures and revenues. In the long run it is only the structural receipts and expenditures that matter.



### **The Costs of Delaying the Implementation of the RDP**

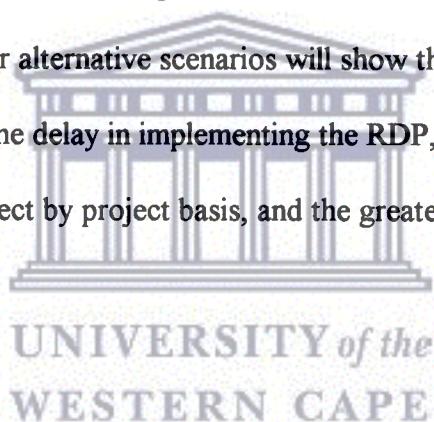
To succeed there must be no delay in implementing the RDP. This is because the RDP is more than a vehicle for delivering resources to the disadvantaged. It is also a vehicle for changing the culture of government and bringing the efficiency of the public sector in South Africa to reasonable standards compared to international bench-marks. Funding may well be allocated to RDP programmes and projects, but without efficient management structures and practices, no effective delivery will take place.

In the first year of the RDP, 1994/95, R2,5 billion from improvements in efficiency and other financial savings was possible. These efficiency/financial gains could build up to around R5 billion to R6 billion by 1997/98. Unless as much resources as possible is made available now, then there

will simply be up to R6 billion less by 1997/98 to support RDP projects according to the assessment of the NIEP.

The less savings made under the present conditions will mean less financial, material and human resources available for the next round of investment. This will mean that on a year-on-year basis the RDP will not reach maturity in five years as envisaged.

Most advanced countries, like Australia, always try to get maximum savings in the first year as this always determines the accumulated long-term momentum needed to make the programme sustainable. Results prepared for alternative scenarios will show that much more savings can be made for the RDP. The longer the delay in implementing the RDP, the more likely the RDP will be treated on an individual project by project basis, and the greater the likelihood of failure.



## CHAPTER 4

### SUMMARY AND CONCLUSIONS

This study probed for the issues and concerns for improving productivity in the public sector in South Africa, aligned in particular with the processes of its fundamental transformation, and the aims and objectives of the RDP. More than that, it provided the view, the approach, the strategies and techniques to bring about productivity improvement. Productivity was not presented as a panacea to solve all problems. It was presented mainly as an attitude about the importance of productivity that must be acquired about the suggestion for how to bring about its development.

#### Salient Features of the Study



The study opened with two hypothetical assumptions. These briefly stipulated that:

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- (i) Substantial efficiency and productivity gains are envisaged through the introduction of various models for improving productivity which include a structured productivity improvement programme, the use of performance enhancing methods, performance measurements and performance related pay.
- (ii) Savings, resources and capacity can be released by the RDP programmes through:  
Restructuring and reprioritizing the budget programmes by making small cuts in what were apartheid-serving programmes and reallocating the human, material and financial resources thus released for high priority RDP programmes/projects.

These statements were augmented by models in chapters 2 and 3 respectively. In conclusion, this section summarises the most important recommendations of the study, and provide guidance for further research.

### **Reforms to Public Personnel Management Systems**

A coordinated National Training and Development Strategy that would involve all relevant institutions involved in public sector training is proposed. The objectives of the training programmes in the public service should be to improve the motivation, performance and productivity of civil servants. Although this has been acted on to some extent, the following training programmes for all levels of the public service are emphasised:

"on-the-job" training; "for-the-job" training; expatriate training; external part-time; correspondence programmes and external institution programmes (local and overseas).

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**Productivity can be improved by applying the following:**

Introducing modern management methods; use of management information systems; strengthening of core economic policy-making agencies; and improving civil service pay and incentive structures by relating income to performance.

**Grades should be based on the following:**

- Band 1 - Outstanding
- Band 2 - Performance significantly above requirements of grade
- Band 3 - Performance fully meets requirements of grade
- Band 4 - Performance not fully up to requirements of grade, some improvement necessary
- Band 5 - Unacceptable

**The use of consultants**

Individuals or organisations with the know-how and experience can often work wonders in getting a programme under way. However, it is important to note that international experiences show that:

Excessive use of consultant have a negative effect on fiscal discipline; leads to loss of essential existing skills; and negates training based alternatives like staff development.

**Calculating the Financial Resources**

In Chapter 3, an effective model of productivity is recommended. The quantification of productivity gains is discussed in great detail and certain recommendations are made:

A case in point are cuts in existing programmes of the Department of Defence of between 10% and 20% in real terms and the achievement of financial savings and efficiency gains of between 10% and 20% within existing programmes. A massive 50% cut in the blatantly apartheid-serving

Programme 7: Special Defence Account is possible. Furthermore, an immediate 20% productivity gain in the administrative resources; savings in building and equipment costs for those 1996/97 programmes which are likely to be run down in the longer run; significant savings in professional service costs; a massive 50% saving on transfer payments; and full adjustments of salaries are possible. If the government has difficulty in achieving the required savings, then it should consider partial adjustment of wages and salaries on a sliding scale, with guaranteed protection for the wages of the lowest paid.

Overall the combination of efficiency/productivity gains; financial services; expenditure reductions; user pay charges; and stockpile sales, **achieves a saving of R2,5 billion from the full year of the 1995/96 Defence Budget.** The resource savings, financial, human and material, could be transferred and utilised for more urgent RDP programmes as illustrated in Chapter 3.

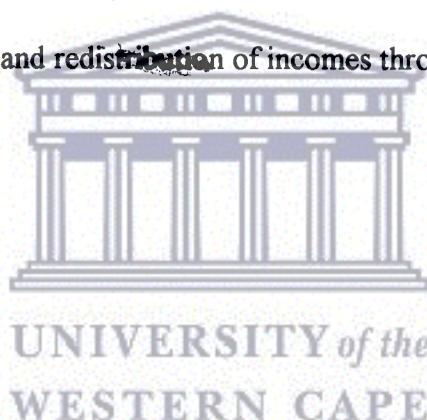
International experiences show that a direct link between falls in public investment, physical infrastructure and decline in productivity exists. The effectiveness of the public service to a large extent conditions economic development. Certain functions such as regulatory frameworks, market failure, social equity and citizens' rights, can only be delivered by the public service.

The move towards a leaner and more cost-effective public service in South Africa should therefore be based, not on privatisation, but on the creating of effective partnerships between government, labour, business and civil society, and the building of high levels of community involvement in the local delivery of services (South Africa, 1995a).

## Recommendations for Further Research

In a study of this length, the limitations are obvious in terms of breadth, depth and quantification. In order to thoroughly examine the macroeconomic impacts of the budget, there is indeed a need to update and model the quantification of the entire national budget. The same need to be done at provincial and local government level. Given the current constitutional arrangements, much work need to be done in the area of intergovernmental relations.

Future research need to focus more acutely on the role of the state in development with particular emphasis on the reconstruction and redistribution of incomes through the use of public finances and budgets.



## Epilogue

The emphasis on problems was not intended to belittle current efforts by South African leaders to transform the public sector into a productive and developmental orientated one. Rather it was the belief and hope that an adequate understanding of current problems would lead to more effective implementation strategies that prompted the study. Improvement in productivity is a desirable goal of any government that is concerned with the effective delivery of services to its people. However, it is not always easily accomplished. A sustained and intensive campaign which brings together central, provincial and local tiers of government, trade unions, NGO's, business and other community organisations is required. Many different elements will be involved in this campaign, but three will be of particular importance:

- a. Building consensus and commitment through effective communication and consultation.
- b. Achieving innovation, creativity and flexibility through decentralisation within national norms and standards.
- c. Ensuring the necessary political will, leadership and decisiveness to drive the process forward.

**a. Building consensus and commitment**

The process of improving productivity will only succeed in meeting its goals if it is founded upon the active involvement, support and commitment of the vast majority of public servants, as well as upon broader public involvement and support. The responsibility of productivity improvement does not rest with top management nor with only employees; it rests with all members of the organisation. Such a pervasive statement of responsibility may go against specified criteria of accountability, but too often the "buck is passed" to one person or group and then things continue as usual. A task force of representatives of all segments of the organisation - management, union, employees and supervisors - can be a healthy way to stir up attitudes that productivity will be a total organisational approach.

It will clearly be vital to appraise the effectiveness of structure and mechanisms on an on-going basis, and to adjust and strengthen them if needs be. The Public Service Commissions (PSC's) will have a particularly important role to play in this regard. So too will the Office of the Minister for the Public Service and Administration (OMPSA) and the Parliamentary Portfolio Committee on the Public Service.

Whilst it is the responsibility of government to set up appropriate consultative structure and to evaluate them on a regular basis, it is similarly the responsibility of staff, unions and civil society organisations to make the fullest use of them in a positive, creative, co-operative and constructive way.

**b. Decentralisation within national norms and standards**

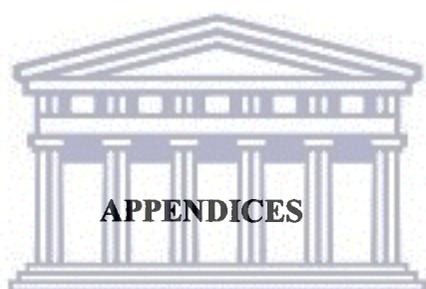
Another key precondition for the success of the reform process will be the devolution and decentralisation of authority to departments and provinces. This is to enable them to act creatively and flexibly in translating the broad goals of transformation and national policy guidelines into specific strategies that are capable of responding effectively to local needs and circumstance. This is in line with the RDP priority of bringing governance closer to the people. At the same, the devolution of decision-making power will be accompanied by increased accountability, both internally and externally. One of the many ways in which this will be achieved is by tying of the contract of department and provincial Directors General to the achievement of specific performance measures and targets, in relation to such issues as service delivery.

In line with the Interim Constitution, decentralisation and devolution will have to ensure conformance to national norms and standards. This will place a premium on effective co-ordination and monitoring. OMPSA, the Service Commissions, and the national and provincial Transformation Co-ordinating Committees will have a particularly important role to play in this regard.

**c. Political commitment and decisiveness**

Given the importance of the public service as one of the key delivery arms of the RDP, and give the increasing signs of popular impatience with the pace of socio-economic change in the country, it is clearly imperative that the transformation process moves as rapidly as possible. It is particularly important that the process moves rapidly enough to allow for significant changes in the deployment of staff and the reprioritization of department expenditure. People clearly want consultation and transparency, but they also want results.

This will require the exercise of political will and leadership to ensure that the change process is driven forward in a decisive as well as consultative way. In particular it will require that firm action is taken to ensure that the opportunities for consultation and participation in the transformation and reform process are used in a responsible, co-operative and expeditious way, and not as delaying tactics by those who have a vested interest in opposing or resisting change (South Africa, 1995a).



**APPENDICES**

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**Appendix 1.****DETERMINANTS OF CRITERIA COEFFICIENTS FOR RDP EXPENDITURES**

The starting point for the calculations of the criteria coefficients is the cost structure of each budget programme. Each budget programme is divided into the following expenditure estimate categories:

1. personnel expenditure
2. administrative expenditure
3. stores and livestock
4. equipment
5. land and buildings
6. professional and technical services
7. transfer payments
8. miscellaneous expenditure



The cost components included in each category are:

**Personnel Expenditure:** all personnel salary costs including remuneration, allowances, overtime, etc;

**Administrative Expenditure:** expenditure on transport, communication, and entertainment services;

**Stores and livestock:** spares, petrol, printing and stationery;

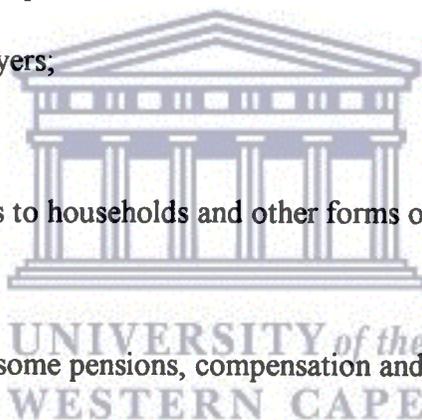
**Equipment:** expenditure on heavy and durable machinery, hospital and other scientific equipment;

**Land and buildings:** expenditure on the purchase, renting or construction; land, buildings and other structures;

**Professional and technical:** expenditure on the services of medical personnel, builders and architects, accountants and lawyers;

**Transfer Payments:** payments to households and other forms or tiers of government;

**Miscellaneous Expenditure:** some pensions, compensation and contingency payments.



Each programme was evaluated according to the following criteria:

1. Economic Activity (GDP);
2. Skilled Labour requirements;
3. Disadvantaged workforce, population segments;
4. Capacity requirements;
5. Balance of payments impact;
6. Tax claw-back;
7. Training programme potential.

The NIEP model was used to derive the empirical coefficients for criteria (1), (part of 2), (4), (5) and (6). Once the coefficients or multipliers are established for each criteria they are then applied to each of the budget estimate categories (personnel, administration, stores and livestock etc.) as indicated above.

Personnel expenditures are wages and salaries. Therefore the method adopted here was to calculate a wage and salary multiplier by a one off increase in wages and salaries for the skilled labour requirement criteria choosing the lowest level of skills. This is a way of shocking the category with a massive increase. However, it is a little more complicated in the case of South Africa. In terms of the impact on the economy what is important is not only the level of expenditure, but also the apartheid distribution of the wage and salary increase differentials. To overcome this difficulty the distribution was set in accordance with the distribution of wage and salaries for the central government. It was assumed that the wage and salary increases here would represent a real "expenditure". The wage and salary increases was not allowed to flow into price rises as would be the case in the private sector. The second category of expenditure (administration) represents mainly expenditure on a range of services.

## Appendix 2.

**Defence**

	1993/94	1994/95	1995/96 Estimate	1996/97	1997/98
	(R'000)				
<b>Program 1: Command and Control</b>					
Personnel expenditure	170,483	210,036	197,378	173,332	173,332
Administrative expenditure	27,486	30,865	36,278	24,397	24,397
Stores and livestock	14,660	56,056	55,340	42,696	42,696
Equipment	0	0	0	0	0
Land and buildings	0	436	467	0	0
Professional and special services	75,350	102,635	115,092	84,232	84,232
Transfer payments	0	0	0	0	0
Miscellaneous expenditure	5,543	8,434	10,528	7,591	7,591
<b>Total</b>	<b>293,522</b>	<b>408,462</b>	<b>415,083</b>	<b>332,249</b>	<b>332,249</b>
<b>Program 2: Landward Defence</b>					
Personnel expenditure	1,439,866	2,558,314	1,751,832	1,567,486	1,567,486
Administrative expenditure	140,547	249,785	187,178	175,581	175,581
Stores and livestock	561,187	804,006	568,124	441,288	441,288
Equipment	0	0	0	0	0
Land and buildings	6,174	18,399	20,029	65	65
Professional and special services	262,793	453,996	343,726	271,314	271,314
Transfer payments	0	0	0	0	0
Miscellaneous expenditure	17,807	18,674	19,726	16,807	16,807
<b>Total</b>	<b>2,428,374</b>	<b>4,103,174</b>	<b>2,890,615</b>	<b>2,472,541</b>	<b>2,472,541</b>
<b>Program 3: Air Defence</b>					
Personnel expenditure	631,185	690,370	690,601	624,330	624,330
Administrative expenditure	51,711	78,088	93,024	68,031	68,031
Stores and livestock	198,301	266,182	356,658	244,544	244,544
Equipment	0	0	0	0	0
Land and buildings	0	1,634	1,900	0	0
Professional and special services	544,561	609,802	607,938	544,920	544,920
Transfer payments	0	0	0	0	0
Miscellaneous expenditure	11,694	12,264	10,569	11,038	11,038
<b>Total</b>	<b>1,437,452</b>	<b>1,658,340</b>	<b>1,760,690</b>	<b>1,492,863</b>	<b>1,492,863</b>

## Defence

	1993/94	1994/95	1995/96 Estimate	1996/97	1997/98
(R'000)					
<b>Program 4: Maritime Defence</b>					
Personnel expenditure	395,770	381,125	424,548	366,085	366,085
Administrative expenditure	22,684	25,942	27,686	24,712	24,712
Stores and livestock	97,328	100,319	132,794	95,303	95,303
Equipment	0	0	0	0	0
Land and buildings	0	1,089	1,166	0	0
Professional and special services	79,514	136,001	93,057	127,841	127,841
Transfer payments	0	40	0	39	39
Miscellaneous expenditure	5,364	5,625	6,479	5,063	5,063
<b>Total</b>	<b>600,660</b>	<b>650,141</b>	<b>685,730</b>	<b>619,043</b>	<b>619,043</b>
<b>Program 5: Medical Support</b>					
Personnel expenditure	292,143	427,012	335,914	281,996	281,996
Administrative expenditure	10,560	23,959	21,747	18,201	18,201
Stores and livestock	109,344	237,132	151,688	128,045	128,045
Equipment	0	0	0	0	0
Land and buildings	0	545	583	0	0
Professional and special services	88,787	163,454	130,715	87,847	87,847
Transfer payments	0	0	0	0	0
Miscellaneous expenditure	5,143	5,393	5,776	4,854	4,854
<b>Total</b>	<b>505,977</b>	<b>857,495</b>	<b>646,423</b>	<b>520,942</b>	<b>520,942</b>
<b>Program 6: General Support</b>					
Personnel expenditure	22,678	24,050	26,974	21,272	21,272
Administrative expenditure	18,059	13,852	12,690	11,811	11,811
Stores and livestock	16,748	23,754	24,259	6,411	6,411
Equipment	0	0	0	0	0
Land and buildings	0	109	117	0	0
Professional and special services	81,981	76,435	67,423	68,024	68,024
Transfer payments	205,078	191,391	191,040	190,438	190,438
Miscellaneous expenditure	1,704	1,787	31	1,608	1,608
<b>Total</b>	<b>331,512</b>	<b>331,378</b>	<b>322,534</b>	<b>299,563</b>	<b>299,563</b>

## Defence

	1993/94	1994/95	1995/96	1996/97	1997/98
			Estimate		
	(R'000)				
<b>Program 7: Special Defence Account</b>					
Personnel expenditure	0	0	0	0	0
Administrative expenditure	0	0	0	0	0
Stores and livestock	0	0	0	0	0
Equipment	0	0	0	0	0
Land and buildings	0	0	0	0	0
Professional and special services	0	0	0	0	0
Transfer payments	3,740,328	3,093,421	3,113,977	1,543,200	1,327,141
Miscellaneous expenditure	0	0	0	0	0
<b>Total</b>	<b>3,740,328</b>	<b>3,093,421</b>	<b>3,113,977</b>	<b>1,543,200</b>	<b>1,327,141</b>
<b>Total of Programs</b>					
Personnel expenditure	2,952,125	4,290,907	3,427,247	3,304,501	3,034,501
Administrative expenditure	271,047	422,491	378,603	322,734	322,734
Stores and livestock	982,832	1,487,449	1,288,863	958,287	958,287
Equipment	0	0	0	0	0
Land and buildings	6,174	22,212	24,262	65	65
Professional and special services	1,132,986	1,542,323	1,357,951	1,184,178	1,184,178
Transfer payments	3,945,406	3,284,852	3,305,017	1,733,677	1,517,618
Miscellaneous expenditure	47,255	52,177	53,109	46,959	46,959
<b>Total</b>	<b>9,337,825</b>	<b>11,102,411</b>	<b>9,835,052</b>	<b>7,280,401</b>	<b>7,064,324</b>
<b>PLUS</b>					
Miscellaneous (salaries)	0	0	0	0	0
<b>TOTAL</b>	<b>9,337,825</b>	<b>11,102,411</b>	<b>9,835,052</b>	<b>7,280,401</b>	<b>7,064,342</b>

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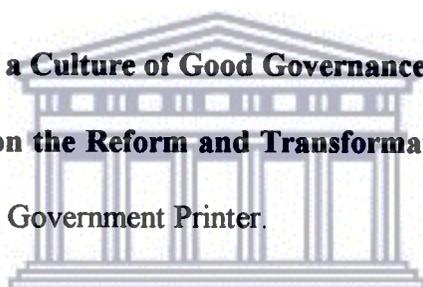
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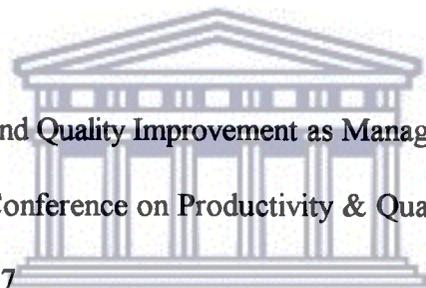
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