## Minister of Public Works Mr J Radebe 27 May 1995

## At the Graduation Ceremony of the Transkei Technikon

The Government of National Unity firmly believes that education is not only the key to personal enrichment, but that it should also be the central mechanism by which rural areas and urban communities learn to develop themselves, their productive potential and their resources. Instead, education in South Africa was turned into yet another device for ensuring high rewards for the few and continued poverty for the many. It was used as a powerful force in preserving inequalities and oppression.

It is therefore within this context that the Reconstruction and Development Programme emphasises the fact that education must be directed to the full development of the individual and community, and to strengthening respect for human rights and fundamental freedoms. It must promote understanding, tolerance and friendship among all South Africans.

In embarking on this development path we have taken not of what has been happening in the rest of the developing world and have learnt lessons from that.

Education has been a boom in the developing world. The achievement in numerical terms in considerably. According to UNESCO, in 1960, 45 per cent of primary age children and 2 per cent of secondary children age were in school in the developing world. By 1970, 62 per cent of primary and 32 per cent of secondary age children were enrolled. In absolute numbers, progress is even more astonishing from 99 million primary school pupils in 1960 to 171 million in 1970; 36 million secondary school students jumped to 76 million; 5.3 million higher education students became 13.3 million.

If education has failed in most countries as a tool to aid development and equality, it is not because government did not expand on it, fast enough. Behind these enrolment figures lay a gigantic effort in building new schools, opening new colleges and universities, training new teachers and teachers of teachers. Education, which government saw as one of the greatest contributions to development and national integration, took a massive proportion of budgets, often more than 20 per cent.

Yet of all this effort all this expense, much went to create social misfits, a large class of disoriented droves and impractical mandarins. All this effort sacrifice has not helped to alleviate poverty and has, if anything, increased inequality.

The fact is that education, the chief path to higher pay, is loaded against the poor in most developing countries. The poor have less access to it, and even when they have they are more likely to fail academically due to a number of socio-economic tactors.

Access is a matter of miles and money. School enrolment, absenteeism and drop-out rates increase in direct relation to distance from school. Even if schools were evenly distributed according to population, the more sparsely populated areas would be disadvantaged compared to towns.

But schools are not evenly distributed. Rural areas have fewer of them, and the ones that do have are likely to be poor in staff and facilities. Teachers, like all other professionals, prefer to live in urban areas.

As part of the developing world, we are placed in a situation in which we are likely to repeat the same mistakes and walk the well-trodden path unless we take cognisance of some unique features of our past. In South Africa today the challenge that we face is the creation of an education and training system that ensures people are able to realise their full potential in our society. This we shall do from learning from other countries' experiences and by also working from our own past experiences.

Under the previous regime, education and training was fragmented under racial and ethnic lines. There were vast disparities between black and white provision. This fragmented, unequal and undemocratic nature of the education system had profound effects on the development of the economy and society.

The development of education in this country was closely linked to the economy, which is resource-based, dependent on trade, foreign investment and foreign skills, more particularly in the engineering sector. The economy had and still has in addition, a grossly inflated public sector which was dominated by whites. The

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economy also relied on gold, which accounts for about 30 per cent of the gross domestic product. This made the economy highly vulnerable to fluctuations in gold price, to inflation and to consequent outflows of financial and human capital.

South Africa, like all capitalist economies, was plunged into deep economic structural crisis immediately after the World War II and has, in that state ever been since despite some cyclical swings.

Tertiary education was inevitably drawn into this crisis as the main supplier of high level manpower (HLM) in more complex ways.

It was not until the latter part of the 19th century that the South African economy changed from a reliance primarily on agriculture and stock breeding to an economy in which mining and industry became dominant. This burgeoning mining industry and expanding network of railways relied for their functioning entirely on engineers and technicians brought from overseas. It was for this reason that the start was made in 1884 with the training of mine engineers at the South African College (now the University of Cape Town).

During the 'fifties, the post-war boom allowed the State to expand its white Afrikaner public service rapidly and the number of people enrolling at universities expanded accordingly.

The boom continued into the 'sixties and by this time university enrolment of whites had outstripped the growth of matriculants. New universities were being created and more and more whites, especially Afrikaners, were taking up places in these new universities. By contrast, proportional and absolute numbers of black students remained low.

With the opening of new ethnic-based black universities in the late sixties, the number of black students enrolling at these universities rose-albeit modestly when compared to that of white students. However, the government's motive for creating these black universities was not altruistic. The State was more interested in using these institutions to staff its burgeoning administrative structures than in fostering skills.

Overall, university expansion rose steeply in the mid 'seventies, but despite the writing on the wall, the economic implication of this change went unnoticed. The economy was in fact gradually going into decline due to low productivity, but the healthy gold price continued to mask this decline.

Black resistance was also rising at the same time, starting with industrial strikes of the early 'seventies. This resistance intensified and reached a peak between 1983 and 1986. That is when it first dawned on the regime that it was facing a serious economic crisis. Capital began to pull out of the country due to the disinvestment pressure from outside and political uncertainty and instability from inside. Foreign debts rocketed and the country was barely able to service its loans, let alone attempting to repay them. The rot had set in 1982 when for the first time the economic growth was seven per cent, and inflation topped 20 per cent by 1985. South Africa was technically insolvent.

Despite all this, university growth continued and was practically out of proportion with every other sector of society. By 1987 the student growth rate had reached an average 6,7 per cent per annum (or over 9 per cent over the preceding five years), with African enrolment growing by an average of 22 per cent over the preceding five years. The corresponding number of degrees and diplomas grew by seven per cent per annum. By contrast, the primary school enrolment was growing by 4,6 per cent per annum, the population as a whole by 28 per cent and the economic growth struggling to reach two per cent.

The first step to reform was forced upon the regime by the black school boycotts of the 70s. The government appointed the De Lange Commission into education in 1981. A dominant theme of the reformers, frog government and business alike was that the pervasive shortage of skills was the retarding effect on the rate of economic growth. A grand overhaul of the education system was needed as a matter of urgency and some stimulation had to be put into it, recommended De Lange.

Serious skills shortages were identified as existing largely in special sectors of high level manpower, mainly for nurses, technicians, technologists and engineers. Most of these were mainly service occupations and required formal training in mathematics and service. Indeed, over 70 per cent of high level manpower is service staff and the vacancy rate for the public sector has been on average five to six times that for the private sector.

This was precisely where the apartheid's entire education system was at its weakest. There is a severe shortage of maths and science teachers in schools in general, but more particularly with black institutions.

There was a decline in the per centage of university students studying for first degrees in science, from 14,8 per cent in 1965 to 10.2 per cent in 1985; and in engineering from 5.9 per cent in 1965 to 4.8 per cent in 1985. Because the government was more entrusted in using the black universities to provide employment for its people than in teaching skills, these institutions neglected science and technology.

In addition, a substantial part of the high level manpower has traditionally been provided by immigrants. It is estimated that between 1945 and 1977, approximately 1 million engineers were from abroad. But owing to political instability in South Africa there was a considerable drain on this personnel, with twice as many engineers emigrating as opposed to immigrating in 1986 alone, a trend that was costing the country R11 million each year in wasted training.

Which then draws me to the role of technikons in the Reconstruction and Development Programme. The reason for the existence of technikons is to offer relevant and functional training to meet the commercial and industrial demand for trained manpower. It is through technikons that we can recover all the lost ground because technikons are special geared for such purposes.

Unfortunately, myths still persist among in the minds of parents and students when technical colleges are compared with universities. Technikons have wrongly been though to be an extension of the early industrial and vocational education, which was for the less intellectually endowed, and aimed at producing workmen in semi-skilled education.

Such a perception could not be further from the truth. In fact under the 1983 legislation, technikons have an autonomous status in line with that of universities.

We have a lot of ground to cover within a very short time. The technikons therefore have a pivotal role to play in replenishing the high-level manpower South Africa has lost within the past decade. It is abundantly clear that the future of many technical programmes, and indeed the capacity to satisfy the needs of the country for highly skilled technicians will depend upon the development of the post-secondary education programmes which quality promising young people who have the desire but lack the scholastic preparation to enter high quality technician programmes.

As we are all aware, the recruitment of qualified students is a major problem in the development of technical education programmes. The academic qualifications for entering a high quality technical programme are practically the same as for entering a university programme in science or engineering but there are not enough qualified matriculants entering any of these programmes.

Technikons must therefore seriously consider providing one-year programmes to give remedial instruction to promising but under-prepared students.

The Transkei Technikon has grown tremendously since its inception in 1992, from 586 students to 2 500 students in 1995. This clearly demonstrates that the people of this region have been denied for too long this type of education and that the Technikon is going to be a major contributor to the economic development of the Eastern Cape.

I am therefore glad to note that the Transkei Technikon has been in the forefront of the RDP since July last year. It has been providing people from the community with courses in bricklaying, concrete handling, carpentry, underground services, administration and clerical, business and entrepreneurship. The technikon has earned a reputation among the community its serves as being there to facilitate development and assist where possible with development.

Success in rebuilding and expanding education and training depends on having an effective and responsive organisation to manage change. This technikon stands out brightly on that and may other institutions follow your shining example.

The Government of National Unity will ensure that human resources of all South Africa are developed to the full and will continue to make opportunities in education and training to adults (especially women, out-of-school youth and children of pre-school age).

We can afford to sustain ivory towers only at our own peril and there is no way we can afford that. We owe it to all South Africans, dead and alive, to provide an equitable and sustainable system of education and training.