



**SPEECH BY THE DEPUTY MINISTER OF BASIC EDUCATION, MR ME
SURTY, MP, AT THE ACADEMY OF SCIENCE OF SOUTH AFRICA (ASSAF)
FORUM AT THE UNIVERISTY OF PRETORIA ON 30 SEPTEMBER 2009**

Programme Director

Members of the Executive of the Academy of Science of South Africa

The Chairperson of the ASSAf Forum, Professor Diane Grayson

Presidents of Science Councils

Distinguished Guests

Ladies and Gentlemen!

Good Evening!

Thank you for inviting me to the official opening of the ASSAf forum. It is important that we debate and reflect on the critical issues that face us in mathematics, science and technology education in order that we may offer and act on relevant solutions.

I believe that we have assembled at this meeting of the Forum because we share the common goal of promoting the advancement of quality education in our country especially in the area of mathematics and science.

This gathering has, in my view, brought together the finest scientific and enquiring minds in our country. I trust that we will use our collective wisdom to provide solutions to areas that pose challenges in mathematics and science education.

Our government has demonstrated a firm commitment to improving the quality of our education. To achieve this, we have committed to constructively engage with stakeholders in the sector to consider views that can contribute to the advancement of meeting the goal of quality education for all.

The importance of education to the new administration is demonstrated by the fact that government has deliberately created two departments, Basic Education and Higher Education and Training, respectively. This is to ensure that we give more focused attention to each of the sections of our education system for improved quality. The Ministry of Basic Education focuses on mass literacy as well as primary and secondary school education. The Ministry of Higher Education and Training focuses on higher education, technical and vocational training. It will also take responsibility for the Sector Education and Training Authorities. Both the Ministries will continue to work closely together.

The ASSAf Forum is quite correctly concerned about the state of mathematics and science in our schools. Indeed international assessments have demonstrated that our country's performance in these tests has been unsatisfactory. Therefore I welcome the focus of this forum on the three fundamental questions you have posed for the challenges that we face:

- (i) Where are we now?
- (ii) Where do we want to be?
- (iii) How do we get there?

I will briefly reflect on some of the questions you have asked and offer further areas of thought for your deliberations during our conference.

In the 15 years of our democracy, there have been significant achievements and strides in education, especially in regard to access to education. We have achieved both universal primary education in line with the Millennium Development Goals, and gender parity in education. More children are staying at

school until matric, and over 85% of children are now receiving 12 years of education – either in schools or colleges. Our matric results have stabilised over the past few years despite a general consensus that the curriculum is much more demanding one, and that the examinations have got much tougher.

One of the key areas that we must get right is the appropriate implementation of the curriculum and the comprehensive package of support that goes with it.

In this regard, you may know that the Minister of Basic Education had established a task team to conduct a consultative process with teachers and other stakeholders of the challenges with regard to the implementation of the curriculum. The consultative process has been concluded and a report on the findings is imminent. When the report is released, I would like to encourage you to consider its content and provide your objective assessment of what we may need to do to give impetus to address the challenges that we still face.

The comments from the consultative process have indicated that an overwhelming majority of teachers and other stakeholders are satisfied with the curriculum (only 2 out of 500 written submissions called for the curriculum to be scrapped). They accept and agree with the high-level of cognitive demands of the curriculum. However, there is a need to look at the obstacles that hamper the effective implementation of the curriculum. I am keen that we shall remove such obstacles to allow teachers to focus on teaching and learners to concentrate on learning.

What are some of these obstacles?

Schools in poorer areas remain under-resourced. Science is being taught without labs, children share books and desks, there continues to be overcrowding in many of our schools. Some teachers are grappling with new content. Some teachers are unable to do practical work in physical sciences even when

equipment is available due to a lack of exposure to practical work in their own schooling.

Qualified and committed teachers remain the mainstay of our system of education. The DoBE is aware that the sustainability of our efforts in mathematics and science education is the availability of suitably qualified teachers. In the last three years there has been a steady increase in the number of student teachers training in South African universities. In 2009 the numbers have increased dramatically.

In 2009, for the first time, we have been pleased to allocate direct grants to teacher unions to undertake development programmes for their members. This is in anticipation of a fully-fledged continuing professional teacher development (CPTD) system, to be managed by the professional council (SACE), and which is being piloted in selected provinces this year.

The Department has incentivized teacher training in mathematics and science. The Funza Lushaka bursary scheme was launched in 2007. The scheme provides full-cost bursaries that cover tuition, accommodation, a book allowance and a stipend to successful applicants. Approximately 9 000 students have received the bursaries and approximately 2000 of them will graduate and so be ready for placement in teaching posts in 2010. In the FET band, the largest number of bursary holders is specializing in mathematics (1225) followed by English language (907) and physical sciences (638). It is our view that by providing suitable conditions for support, we can build a strong foundation for the future development and sustainability of our education system.

This year (2009) marks the last year of the second phase (2005-2009) of the National Strategy for Mathematics, Science and Technology Education which we originally launched in 2001. Given that this year is the last year of our targeted Maths, Science and Technology strategy, we will carry out an evaluation of the programme to establish the total impact of our interventions. This will assist the

system to respond more appropriately to areas that would still require dedicated attention in improving the quality of our education.

We have also noted good progress at the level of performance in mathematics and science in the Dinaledi schools. We have made progress in regard to the implementation of the objectives that we had set ourselves in pursuit of a mathematically and scientifically literate society.

Since the launch of the strategy, we have seen an increase in the level of participation. The attendance and performance of girl learners has also dramatically improved.

Notwithstanding the strides we have made, the challenges still remain daunting and will require an extraordinary effort by the department and all other stakeholders to ensure that we are able to enhance access to quality education for all.

Recent claims by HEIs are that this year's first year students are different to those from previous years because the 2008 matric mathematics pass rate was "exceptionally high". They are reportedly failing to cope with their first-year studies in mathematics and therefore are not adequately prepared to cope with courses such as Engineering, Architecture, and Business Science at tertiary institutions. It is important that these claims are systematically measured and reported to the Department of Basic Education. If they remain anecdotes as they currently do, then the Department of Basic Education is not in a position to act to improve the curriculum, the examinations and teacher training. It is only with systematic and longitudinal evidence that we can act with you to address your concerns

We invite ASSAf to offer practical and implementable solutions that we will consider as we move forward.

Together we can do more.

Good luck in your deliberations!

Thank you.