

**ADDRESS BY HON. D. GOKHOOL,  
MINISTER OF INDUSTRY, SCIENCE AND  
RESEARCH**

**LAUNCHING CEREMONY OF THE  
SADC Science, Engineering  
and Technology Week**

**THURSDAY 22 OCTOBER 2009  
AT 09 45 HRS**

**Swami Vivekananda International  
Convention Centre, Les Pailles**

My Colleague Honourable Dr Arvind Boolell, Minister of Foreign Affairs, Regional  
Integration and International Trade  
Honourable(DRC)

Honourable D. Hanekon, Deputy Minister of Science and Technology, Republic of South  
Africa

Dr Auguste Salamao, Executive Secretary of SADC  
Honourable Ministers and Members of the National Assembly,  
Your Excellencies,

Heads of diplomatic missions

Distinguished delegates

Distinguished guests

Members of the Media

Ladies and gentlemen

A very good morning to you all.

On this occasion of the launching of the First SADC Science Engineering and Technology  
(SET) Week, I am particularly honoured and pleased to be in your midst and to make this  
key note address.

Allow me, first of all, to extend a very warm and cordial welcome you. Allow me also to  
extend a very special welcome to all our overseas delegates and guests to our beautiful  
island.

And express my deep gratitude for your participation in this ground breaking event for the  
African region.

My special thanks go to our Prime Minister Dr Navinchandra Ramgoolam for his commitment and support to the promotion of Science, Technology and Innovation.

I wish also to sincerely thank the Honourable D. Hanekon, Deputy Minister of Science and Technology, from the Republic of South Africa, who is Deputy Chair of this event, the SADC Secretariat for all the support and advice as well as the public and private sector organizations for the organization of this extremely important event.

### **SET Week**

Ladies and Gentlemen

We are gathered here because we, the SADC Countries unanimously recognize that the integration of Science, Technology and Innovation (STI) in the development process assumes critical importance in the attainment of the millennium Development Goals, which have a major aim to halving poverty, reducing infant mortality and halving unemployment by 2015 as well as the ushering in of a new era of sustainable development.

Given that the current global economic downturn is radically and dramatically reshaping the relative and absolute economic strength of nations – and that other nations are making choices about which areas to focus on in order to drive future growth – shouldn't we do the same to boost the economic and social impact of our science base?

As Peter Mandelson Secretary of State for Business, Enterprise and Regulatory Reform, in UK, has stated: *“Science is not only the ladder by which we will climb out of the downturn – it is also critical to our success in the upturn”*.

In fact, SADC Heads of Science Ministries started discussing on Science and Technology since 1988. Prior to that very few SADC countries had policies for Science and Technology. Now, almost all have dedicated Ministries for Science and Technology.

In Mauritius, last year, the Government under the able leadership of Dr the Honourable Ramgoolam created for the first time the Ministry of Industry, Science and Research as part of its strategy to promote a modern and vibrant economy base propelled by innovation, technology knowledge and specialized skills.

At the regional level, Science, Technology and Innovation (STI) is now emerging as a central pillar of all developmental initiatives. It is articulated in the 15 year SADC Regional Indicative Strategic Plan. The detailed policy is contained in the Protocol on Science, Technology and Innovation signed by the SADC Summit in August 2008.

Present day development programmes such as that of NEPAD also include Science and Technology as drivers of development.

### **Why this “Prise de Conscience”?**

It is a historically and internationally established fact that the world economy has been transformed by scientific developments, technological prowess and cutting edge innovation at different stages of its development. It is also a fact that civilizations have crumbled due to their inability to renew their knowledge pool.

In this 3<sup>rd</sup> Millennium, the world has stepped into yet another era – the post Industrial era, where knowledge has emerged as a catalytic force for societal transformation.

Unlike the classical Fordist and Taylorist development model, the new model of development is based on a blurring of distinction between mental and physical labour and the increase in the application of knowledge to production itself.

Knowledge has many forms and it is available at many places. It is acquired through education, information, intelligence and experience. It is available in academic institutions, with teachers, in libraries, in research papers, seminar proceedings and in various organizations and work places with workers, managers, in drawings, in process sheets and on the shop floors.

Knowing more and better, doing better and living better is the most exciting thing on this planet.

***“Knowledge has always been the prime mover of prosperity and power”.*** Creation, acquisition, application of knowledge to solve society’s emerging problems has become the thrust area throughout the world. In fact, scientific knowledge is the DNA of modern societies.

Economic and social progress critically hinges on investments and inputs from STI particularly in this era of globalization, which is characterized by the emergence of innovative and knowledge-based industries.

The integration of STI in the development process is thus critical in bridging the gap between the developed and the developing countries.

It is our ultimate aim to bridge this gap through development of skilled-intensive and technology-driven sectors like ICT, bioinformatics, bioscience renewable energy, biotechnology and medical science where the edge lies in the production of high value-added products and services for niche markets.

## **Africa**

Unfortunately, for too long, we in Africa and the developing world have had our economies shaped by colonial masters on growth models based on the exploitation of resources without consideration being given to institution building, and the nurturing of indigenous talents and competencies, perpetuating conditions of dependency, economic underdevelopment and vulnerability to ecological change and global economic instabilities.

However, African countries are now determined to embark on the route of regeneration, renaissance and renewal, building on its glorious past in terms of a continent where homo sapiens emerged, a continent where works of art, intricate sculptures and architectural monuments have been crafted by ingenuity and artistic creation and a continent of many ancient civilisations.

**Time has come for Africa, like India and China, a land of knowledge, to rediscover itself in this aspect.**

This Africa, inspired in many ways by its glorious past and political stalwarts in the continent, is driving to the world a new message. The message is that Africa is a land of promise and opportunities and has valid ambitions to be equal partners in the new economic order propelled by scientific and technological transformation. Initiatives like

the Monrovia Strategy of July 1979 and the Lagos Plan of Action of 1980 have set the scene. Since then we have travelled a long way.

The AU/NEPAD Consolidated plan of action and initiatives such as the SADC Regional Indicative Strategic Development Plan (RISDP), the SADC Science, technology and Innovation agenda and the SADC Protocol on Science, Technology and Innovation, are altogether providing strategic direction on science, technology and innovation programmes in the region.

Here, we must be thankful to South Africa for spearheading the programme of action for the SADC science and technology sector and providing support for the setting up of a SADC desk on Science, Technology and Innovation. The development of STI policies and institutional frameworks for indigenous knowledge systems in SADC member states will certainly also constitute vital support to SADC countries. These are laudable initiatives to promote STI and find practical solutions to pressing African problems. Allow me here to mention that South Africa is acting as a trendsetter for the region and exemplifies the role of an economy in the south that has achieved a breakthrough in many sectors and has developed a number of centres of excellence.

### **Mauritius**

In Mauritius we are going through a major transformation of our economy. The era of preferences and protection is giving way to global competitiveness and integration of economic activities into the global value chain. Credit must here be given to our Prime Minister who has both a science and a social science background and who is both a medical doctor and a lawyer who decided to create a Ministry with responsibility for Science and Research for the first time in September 2008 during a Cabinet reshuffle.

As a man of vision, he realized that Science and Technology are key ingredients for our future success, the more so that our island has no natural resources apart from our human resources. At the level of my Ministry, an STI strategic framework document is being finalized. Already a new institution – The Fashion and Design Institute has been established to promote creativity and innovation.

### **SADC REGION**

Other economies in Africa are taking similar laudable initiatives to transform their rich reservoirs of natural resources into value products and establish a new foothold in the global market. Africa's economic growth averaged 5% of gross domestic product. Some countries had growth rates higher than the U.S and Japan.

The SADC region as a whole has positioned itself as a preferred destination for science and technology facilities and infrastructure. The High Energy Stereoscopic System in Namibia, the astronomy Frontiers Programme, the Southern African large telescope (SALT), and the Square Kilometre Array (SKA) project are major milestones.

The Network of Biosciences in the region has now centres of excellence to add value to Africa's biodiversity. The African Laser Centre, as a virtual centre of excellence, focusing on laser research, provides the impetus for laser technology to reach the people of the continent. These are laudable initiatives to mainstream STI for the necessary structural shifts in the region.

### **SADC SET WEEK**

The proposal for this SADC SET Week had been on the agenda of the SADC for some time now. SADC has taken a number of initiatives through the Regional Indicative Strategic Development Plan (RISDP) and its Protocol on Science Technology and

Innovation to encourage integration of STI in development policies. At the SADC Ministerial Meeting on Science, Technology and Innovation, held in December, 2008 in South Africa, a firm proposal was made for Mauritius to hold this Conference.

On that occasion, on behalf of the Government of Mauritius, I took the commitment that Mauritius would chair the first SADC SET Week as I had no doubt about the relevance of this activity for our development process and objectives. And today, I am glad that its launching in Mauritius is a reality, blessed with the presence of many dignitaries and institutions from the SADC member states.

The theme of the SET Week is” **Harnessing Science and Technology for Socio-Economic Development.**

This event, as you are now aware, will comprise of three main components, namely:

- (i) An exhibition of 76 local public and private institutions alongside exhibitors from South Africa, Democratic Republic of Congo and Namibia to showcase scientific and technological developments, and also future possibilities;
- (ii) A forum on Science, Technology and Innovation which involve six round tables focusing on themes of topical interest relating to climate change, renewable energy, satellite technology, telemedicine., food security and space science; and
- (iii) A Science and Education Fair to create awareness on Science and Technology courses available in our Universities

## **Key Objectives**

Ladies and gentlemen

This SET Week is a ground-breaking initiative for the region. Previous speakers have all commented on the importance of the theme of this Conference. ***Let me state that the key objective of the SADC SET Week is to raise public understanding of science, engineering and technology and their contribution towards socio economic development and improving the quality of life of our people.***

This activity therefore assumes critical importance as it helps to lay the foundation for a new development paradigm driven by scientific and technological developments. It is the beginning of an exciting journey especially, as the world is increasingly supporting and adopting a new mode of development where sustainability of our planet is at the very heart of all our preoccupations. The seeds of this new developmental model being sown will take time to bear their fruits of economic progress and prosperity, but we have certainly embarked on the right path.

With today's initiative, we are inaugurating a new era of co-operation at the regional level in a sector which has been lagging behind. And our presence here today is testimony of our faith in Science, Engineering and Technology while it also demonstrates our trust in our people and policy makers as agents of change which serves the collective interests of our planet and its people and lift societies to new levels of development and prosperity.

## **Issues and Challenges**

It is appropriate that we take the opportunity and focus on a number of issues and challenges(not an exhaustive list) that needs to be addressed in our efforts to promote and integrate STI in our development processes.

### **• Enabling Policy Framework**

First, we need to create *an enabling policy environment with a strong R&D leadership*. The policy framework will have to be articulated in a holistic and concerted manner. At present, institutions function in isolation and others with a lot of overlapping. It is capital to promote, coordinate, organize, prioritize research and monitor research output. At the same time, research in humanities, arts and social sciences are absolutely essential to accompany scientific and technological progress. We have to ensure that we move from a sectoral approach to a multi disciplinary and competence based approach.

The STI Policy will require a new mindset, a novel approach and a capacity to accept new ideas. We need to cultivate an open mind and accept the power and potential of new ideas. It is new ideas that constitute the DNA of progressive societies. Each country needs to promote a **Culture of Science** and encourage public understanding of science and innovation and organize activities and events to stimulate the peoples interest in STI.

A major policy thrust lies in the setting up of a National System of Innovation. This will create a supportive and enabling environment that helps to harness STI for socio-economic development and enhance quality of life for all. National System Innovation activities should encompass, among others, Research and Development and other determinants of innovation like producing highly skilled human capital required for

Research and Development and financing research projects of commercial value particularly the SMEs

### **Involving Youth into Science Strategy**

My second point relates to greater youth involvement into science strategy. The OECD global science Forum 2005 and 2006 identified declining interests in science studies among young people as a major factor hindering economic modernization. As a response to this desperate situation, we need to encourage greater involvement of young people in science subjects at the level of secondary and tertiary education so that we can eventually have a generation which encompasses within its fold a larger number of scientists and innovators while contributing to the development of a skill-based workforce.

We have to reckon that there is a gender disparity as far as STI is concerned. Mauritius signed the SADC Declaration on Gender and in the STI sector and a number of measures have been taken to encourage more girls to take science at school and to facilitate women participation in the S&T sector. This strategy must be strengthened. The successful implementation of such a strategy will go a long way in creating the necessary pool of engineers, scientists, surveyors, architects, projects Managers and Information technology specialists.

### **Expenditure on R & D**

We have lofty goals but it will be very hard to achieve them if we do not increase significantly our expenditure on R & D. this would imply doubling or trebling Government funding in the next five years. The sector will have to do more but the private sector whose contribution to industrial R & D remain very low if not negligible compared with the 3% expenditure in the Asian Tiger Economies.

We cannot continue relying on the world market for inflow of new technologies. We have to develop indigenous capacities to develop specialized knowledge and adapt technologies to local conditions. Our enterprises will also have to promote a culture of technology and innovation. South Africa has made a significant stride in the field of Science and Technology with reputable universities – a strong network of Government packed science councils and engage private sector and an investment of nearly 1% of GDP in R & D. We have a lot to learn from them and also to share with the whole of African continent through joint venture, equipment sharing or PHD student supervision to name but a few.

In Mauritius, investment in R & D including the sugar sector represent 0.36% of the GDP. This is considered a low percentage compared to expenditure by other developed countries which can reach 4%. The African Union of which Mauritius is a member has urged its member states to allocate at least 1% of GDP on research and development. Proposals will be formulated in the Mauritian policy document to increase R & D investment at national level to 1% of GDP by 2015.

### **Setting up of Science Technology and Innovation Park**

SADC member states should consider the setting up of STI Parks. One of the activities of such a park will be to foster a creative and innovative approach to development through Research and Development, greater articulation between Research and Development and developmental priorities, as well as through the establishment of incubators and clustering. The Science Park will also facilitate the development, transfer and commercialization of technology.

A successful and innovation system needs a society that understands and values the importance of STI. In this context, the holding of National Science Week in every SADC country is highly recommended. Such programmes should focus on two main goals:- increasing understanding and appreciation of the importance of Science Engineering and Technology in the daily lives of people and stimulating young people interests in Science and Mathematics.

This process will help to bring about *knowledge democracy* i.e. empowering the common people to participate in the transformation of societies. Media support is crucial to popularize the Sciences.

### **ICT and the New Economy**

In promoting the agenda of STI for development of societies, the role of ICT is decisive. As the global economy develops, the global outsourcing market is expected to top USD 100 billion in 2009 creating new opportunities emerging from global economic downturn. Innovation in the ICT Sector will drive the emergence of ICT as the main pillar of our economies and as an engine for economic growth. In order to further innovation and development of intellectual property in ICT, science and technology has a pivotal role to play in the education of our young people right from an early age in school. Our young people are our future and developing that interest in Science and Technology at an early age is quite important for the nation.

### **Indigenous knowledge and Intellectual Property Rights**

During the SADC Ministerial meeting on STI in December 2008, Member States recognised the importance of Intellectual Property Rights (IPR) at national level, particularly on Indigenous Knowledge Systems (IKS), and the importance of developing IPR structures and policies. Senior officials observed the need to share

experiences and capacity building on the complex nature of IPR. The Ministers made decisions that the Seychelles SADC IKS Workshop should consider including discussions on intellectual property rights as related to IKS in their IKS workshop in June 2009. South Africa was mandated at the Ministerial meeting in December 2008 to host a regional workshop on IPR, which was aimed at sharing of knowledge and experiences in IPR policy.

The workshop on IPR took place in South Africa in August 2009 and was attended by SADC Member States and the stakeholder community. The workshop was designed for government officials in charge of legislation, policy making, and the regulation or enforcement of IPR and related rights. It provided information on basic and recent IPR issues from the perspective of socio-economic development, increase understanding of the protection, exploitation and enforcement of IPR, and examined feasible mechanisms for implementing legal infrastructure in compliance with international.

To address this issue Mauritius endeavours to strengthen the IPR framework to facilitate and promote creativity and innovation. As such there is already the **National Industrial Property Office** which is responsible for registration of trademarks and industrial designs and the grant of patents.

However more still needs to be done to enhance the capabilities of the national Industrial Property Office through technical assistance and capacity-building, to undertake searches, conduct formal and substantive examinations, grant patents, and register trademarks and industrial designs.

Other measures to strengthen our IPR regime which still need to be taken include enactment and enforcement of national laws that can adjust to changing environments, while protecting the rights of all to benefit materially from their inventions and creations, strengthening IPR cooperation and harmonisation with regional and global organisations/systems, with a view to enhancing the efficiency and effectiveness of the national IP system and promoting cross-border technology transfer and diffusion by harmonisation of regulations and standards with Regional Economic Communities

### **Opportune**

Ladies and gentlemen

This first SADC SET WEEK comes at a most opportune moment. It provides an ideal platform for the cross fertilization of ideas and is an excellent opportunity to share expertise and knowledge and instigate cooperation among our countries and their research institutions for our mutual benefits.

By so doing we can alleviate the costs of investment and facilitate grassroots innovative technological developments. We are all strengthening our education systems and expanding our universities, recognising the power of skills and knowledge. Collaboration by our academia can facilitate process and product developments for our industries, generate inventions for new entrepreneurs and advance scientific developments in the region.

Cooperation can span into areas such as bioscience, bioinformatics, ICT and telemedicine, among others to institutionalise Africa's technological change as well as to address common challenges such as climate change, need for renewable energy and food security.

Together we can better forge ahead, developing programmes for technology foresight, setting up national Innovation Systems and develop STI Indicators.

There is no doubt that we have a long way to go to reach an adequate level of modernity. I understand that expenditure in R&D as a percentage of GDP in the region is less than the AU target of 1% and lags behind those of emerging and developed economies with rates from 2% upwards. However, many African countries are fast accelerating the pace and quality of research recognising that developed and emerging economies in Asia and South East Asia have forged their economic strengths on science, technology, innovation and knowledge.

Through the initiatives of the SADC, the AU and the NEPAD, we are now better prepared to trigger these forces, to alleviate poverty and diseases, create new and better paid jobs, and ultimately improve the quality of life, which constitute the aspirations of our sons and daughters in the continent.

In this way, we are ensuring that the benefits of science and technology go down to every citizen, to every village and that the most vulnerable are the most prized recipients.

The first SADC SET Week aims at harnessing the power of science, engineering and technology by popularising its importance to the public at large and foster interests for local and regional technological learning for the benefit of our people. It is the beginning of a new journey and to-day, together we are making the first few pioneering steps.

I again therefore thank all of you who are present at this defining moment for Africa and its future.

Together with South Africa as Deputy Chair and the SADC Secretariat, we will now build on the momentum gained to drive forward on the path of bringing greater insights into scientific and technological developments in the region. I am confident this process will be an important building block in shaping a better future for citizens of SADC member states.

As stated by Abdul Kalam, it needs a great vision to inspire nations. Let this event be a source of inspiration to one and all.

I thank you for your kind attention .

Thank You.

October 22, 2009