As Prepared for Delivery

Public Address

Delivered at the
John F. Kennedy Jr Forum
Institute of Politics
Kennedy School of Government
Harvard University
Cambridge, Massachusetts

by

Her Excellency Dr. Ameenah Gurib-Fakim
G.C.S.K., C.S.K., Ph.D., D.Sc.
President, Republic of Mauritius

Thursday, April 6, 2017

President Drew Faust
Board of Trustees, the Faculty
Students, Distinguished Guests, Ladies and Gentlemen

I am honoured to be today at one of the finest institutions of learning.

The legacy and record of academic excellence that Harvard University has achieved is exemplary, one to be admired, and wherever possible, emulated around the world.

At the outset, I have a confession to make. As soon as I told my family that I was 'going' to Harvard at the invitation of President Faust, my daughter, Imaan who is an undergrad in the UK, said simply and firmly: "I am coming."

So we are both glad to be here in one of the most haloed portals of academic excellence and are grateful for the opportunity.

As an African leader who is first a scientist, I use my bully pulpit to champion the cause of science for development and am devoting my tenure to promoting scientific excellence on the continent.

So I see my visit as an opportunity to learn as well as to share our thinking on how tiny Mauritius can overcome the tyranny of geography and location in the vastness of the Indian Ocean and punch above its size and participate in continental affairs.

Friends, this task is a work in progress and I am delighted to have the opportunity of sharing a few facets of our development story.

Ladies and Gentlemen, we meet at a consequential time in Africa's evolution. Africa, south of the Sahara, is undergoing unprecedented economic, social and cultural transformations.

In 2010, the McKinsey Global Institute described African economies as "Lions on the move."

Perceptions of Africa have changed dramatically over the past 20 years. Frequently viewed from an 'Afro-pessimist" lens, the continent was seen as a locus of wars, famine, and entrenched poverty in the late 1990s.

Fortunately, there is now a focus on "Africa Rising" and even talk of an "African 21st Century."

This is largely attributed to the commodities boom, improved governance, sound macroeconomic fundamentals, commitment to reform and new resource discoveries which have all contributed to this robust growth trends and have helped to reverse 20 years of economic decline that began in the 1970s and 1980s.

According to the World Bank, economic growth in Sub Saharan is forecast to grow at 2.9% in 2017, and hopefully rise to above 3.5% by 2018.

Our continent needs robust, inclusive and sustainable growth to meet poverty targets.

Sub-Saharan Africa is open for business. The "Doing Business" report for 2016 showed that Sub-Saharan Africa accounted for about 30 percent of the improved global regulatory reforms and half of the world's top 10 improvers. Notably, we were ranked Number One for "Ease of Doing Business in Africa."

I would like to cite a few numbers about Mauritius. Ours is a small middle-income country, with a population of 1.3 million and a per capita gross national income of $ 9780.

In 2016, economic growth registered at 3.8%. Mauritius Human Development Index ranking of 49. On our business-friendly environment, Mauritius performed best in the areas of Protecting Minority Investors and Dealing with Construction permits, with a rank of 32 and 33 respectively.

Yet, the overall welcome trends in Sub-Saharan Africa have to be seen against the backdrop of sobering facts, making the proverbial glass half-full.

Across the continent, changes in demography, high population growth rates, rapid urbanization, slumping commodity prices and plummeting oil revenues are all posing major challenges, denting growth threatening to reverse hard-won development gains.

I would be remiss if I did not address climate change and the fundamental threat it poses to balanced development in SSA.

Food production in SSA will need to increase by 60 percent over the next 15 years, and the agriculture sector will be hit hardest.

Without adaptation, Africa will suffer severe yield declines in important food growing areas, for example maize-growing areas across southern Africa.

Rainfall volatility is on the rise, particularly in the hyper-arid areas of the Sahelian zone.

Extreme weather events – droughts in eastern Africa, floods and cyclones in southern Africa – are increasing, in frequency as well as intensity.

Ladies and Gentlemen, this is only a fleeting snapshot of the major challenges facing our continent. There are more.

As a scientist, I lament that SSA with 12% of the global population only accounts for less than 1% of the world's research output. OECD members have 12x per capita the number of scientists and engineers working in R & D as compared to low-income countries.

They also publish 25x more, many in top scientific journal articles. Lamentably, no African nation was among the top 20 countries filing for patent applications in 2013.

In the short time available, I have painted a broad canvas about the development challenges confronting SSA as it marches forward for achieving the Sustainable Development Goals by 2030.

We have the resources to accelerate our socio-economic transformation, notably a young population, which represents a growing labour force not only for Africa but potentially for the rest of the world.

By 2034, the continent is predicted to be home to the world's largest working age population of 1.1 billion. Reaping this potential demographic dividend will require sustained people-centered investments to shape an innovative workforce that can help the economies to advance toward knowledge-intensive economies.

Why is it important to attract youth? Sub-Saharan Africa has the advantage of 11 million young people entering the labour market every year, representing unrivaled brain power.

Let me cite an example from the world of science. By age 23, Issac Newton had made three of the greatest discoveries in science: the Differential Calculus, the Composition of Light and the Laws of Gravitation.

All this when in the summer of 1665, his academic base in the other Cambridge, across the pond, had to be evacuated on account of the plague!

Friends, the development challenges confronting Sub-Saharan Africa far surpass the capability of any one country to tackle them alone.

To be able to effectively meet our development challenges, Africa must bridge the gap between research and policymaking.

In September 2015, world leaders adopted 17 Sustainable Development Goals (SDGs) and helped set a bold, new development agenda for the next 15 years.

I believe now is the time to rededicate ourselves to achieving these goals by 2030. African researchers have a role – a significant one – to play in achieving the goals.

A highly skilled pool of trained African researchers is the prerequisite for innovation and attracting high-value manufacturing, which in turn drives sustainable economic growth, while protecting our planet and addressing climate change.

This is what Africa needs to sustain its growth path. We are starting, albeit, from a low base. Africa represents 15% of the globe's population but just 1.3 % of the global investment in R&D.

Low enrolment rates, especially in tertiary/higher institutions, mean we are not creating the skilled workforce fast enough.

This spills into science, with only a few graduating with degrees from the field. Consequently, our scientific workforce remains low at 198 researchers per million population compared to 4,500 in the USA.

These challenges collectively slow down the development, translation and use of scientific discoveries to address the myriad of developmental challenges that impair the everyday lives of millions of Africans.

But hope springs eternal. We have compelling grounds for optimism as public and private sectors ramp up scientific investment in the coming years.

The continent's economic growth can be attributed to a rise in a new generation of political leaders who are technically trained and passionate about promoting governance and creating the democratic spaces for economies to thrive.

Consequently, this has continued to attract foreign direct investment, some of which has translated into private sector investments in R&D. Tax incentives provided by Mauritius, South Africa and other countries are also incentivising private sector investment in R&D.

The spread of mobile phones has ensured African economies are positioned to benefit from technological advances as we have seen in Kenya where the introduction of Mpesa, has turned the East African country into a global leader in mobile payments. Two weeks ago, Kenyans began to participate in the stock market and are buying and selling shares on their mobile phones.

In addition, more of Africa's citizens are accessing smart phones and internet services, with the adoption rate expected to increase to 50% in 2020 from only 2% in 2010.

This has also enabled scientific collaboration leading to the production of cutting edge research, especially in the health sector among many US universities and laboratories across the continent.

For decades, the notion of controlling or ending the AIDS pandemic has been a distant aspiration. Through the contributions of African research institutions in partnership with Harvard research groups, we now have scientifically validated prevention strategies – suggesting that victory against AIDS pandemic is feasible.

Recent prevention research provides potent new modalities to complement older, prevention tools. One example is the HIV Prevention Trials Network based at sites in multiple African countries. It determined the effectiveness of early v/s later treatment strategies in preventing HIV transmission.

Participating countries included Botswana, Kenya, Malawi and Zambia. The results were dramatic: a 96% reduction in HIV transmission for participants who received ART immediately as compared to those participants for whom ART was delayed. The journal, *Science*, selected this achievement as the 2011 Breakthrough of the Year.

The success of the HIV Prevention Trials Network demonstrates the importance of collaboration.

As an African proverb goes: *To go fast, walk alone. To go far, walk together.*

We wish to strengthen existing partnerships and forge new ones that will carry the continent's science agenda forward and promote a shift in the centre of gravity of African science to Africa as we have noted with the creation of the African Academy of Sciences and the NEPAD Agency's Alliance for Accelerating Science in Africa (AESA).

Key funders such as the UK's Department for International Development, Wellcome Trust and the Bill & Melinda Gates Foundation have delegated key programmes to the Nairobi-based AESA platform, granting the platform leadership in decision making for better mobilizing African science, technology and innovation to the continent's development needs.

This momentum should continue.

The time is ripe to support a decisive shift in the centre of gravity of leadership, governance and funding of African research - with the leaders of African public, private, philanthropic sectors embracing ownership and informing priorities.

It is in this context that I have helped found Coalition for African Research and Innovation (CARI), which will mobilise public, private and philanthropic partnerships to connect with and support Science, Technology and Innovation for Africa's development needs. It is through such partnerships that Mauritius can provide an important facilitating role to bridge the world of high science and marshal innovation for achieving solid development outcomes.

The newly formed CARI is an alliance of African science leaders, the private sector and international funders, include AESA, the Wellcome Trust, the Bill and Melinda Gates Foundation and the US National Institute of Health, all of whom have joined forces to catalyse investment in research and innovation.

Our aim is to help ensure that scientists on the continent are an effective force for R&D data generation, policy-making and economic development, and nurture the generation of scientists who can lead Africa's transformation.

Ladies and gentlemen, it is no secret that we are facing uncertain times in global politics, which could negatively impact a rising Africa. Economic populism, inward-looking policies, cuts in foreign aid, and worrisome anti-science sentiments are all taking a toll on the existing order.

Given that these trends could lead to a decline in international funding for science in Africa, I have been at pains to highlight the need for Africa to own her development agenda and shape her destiny by making investments in science, technology and innovation a priority.

This can only happen if we mobilise our resources for knowledge generation supporting tertiary education, nurture scientists and bridge tertiary education, nurture scientists and bridge the research uptake gap.

We recognize that we cannot do this alone and seek partnerships that are anchored in the common good.

Here I would like to conclude and cite the writings of Rabindranath Tagore, India's famous literary giant poet and Nobel laureate who described the quest for a promised land in his magisterial poem 'Gitanjali':

"*Where the mind is held without fear and the head is held high;*
Where knowledge is free;
Where the world has not been broken into fragments by narrow domestic walls;
Where word comes from the depth of truth;
Where tireless striving stretches its arms towards perfection;
Where the clear stream of reason has not lost its way into the desert sand of dead habits;
Where the mind is led …into ever-widening thought and action;
Into the heaven of freedom… let my country awake."

Ladies and Gentlemen, Tagore's aspirations for his country are extremely relevant for our discussion today.

I believe that if Africa is to awaken to its unfulfilled potential, science, supported by a new, more hopeful, Africa-centric narrative can help propel us forward in our journey to achieving the Sustainable Development Goals by 2030, and eliminating the blight of poverty, hunger and environmental degradation on the face of the continent.

Our time for action is now.

Thank you for the invitation and for your attention. I can now say that I have "been" to Harvard and I am grateful for the opportunity to share my thoughts.