

INTERNATIONAL NETWORK FOR GOVERNMENT FOR SCIENCE ADVICE

## **OFFICIAL DINNER KEYNOTE ADDRESS**

***Honourable Dr. Andrew Wheatley***

Minister of Science, Energy and Technology – Government of Jamaica

*February 2018; Kingston, Jamaica*

**Representatives from academia, government and private sector**

**Visitors and participants from our neighboring island states**

**Specially invited guests, pleasant greetings.**

Let me first express my deepest appreciation to the International Network for Government Science Advice, the University of Auckland, the Government of New Zealand, the International Council for Science and members of the Caribbean Capacity Building Workshop Programme Committee that have provided both monetary and technical support toward the successful implementation of this week's activities.

I would also like to thank representatives of government ministries, departments, agencies, NGO's and multilaterals from across the globe who have come to share in this inaugural event in the Caribbean. I understand that we have representatives that have travelled from Antigua and Barbuda, Guyana, Trinidad and Tobago, St. Lucia, Bahamas, Barbados, El Salvador, Argentina, Uruguay, Canada, Great Britain and New Zealand to celebrate this achievement here in Jamaica. This demonstrates that although we are diverse politically, racially and culturally we converge on the philosophy that science is central to ensuring well-being and prosperity for all societies.

What some of you may or may not know is that I have not only professional and political interest in the work of INGSA but also a deep personal one. As a graduate student and

later as Research Scientist in the Department of Basic Medical Sciences my research in part focused on the Glycemic Index, specifically how the body breaks down carbohydrates found in commonly eaten Caribbean. The results from this work would later go on to contribute to a paradigm shift within the medical community on nutritional recommendations for diabetic patients.

Although the body of knowledge was sound and resulted in a number of patents and publications in International Peer Reviewed Journals, it wasn't until I entered the public service as Councillor and Mayor and then Member of Parliament for South Central St. Catherine, that I truly understood the value of my scientific work. Time and again my constituents, many of whom suffered from diabetes, would mention that their physician advised that they consume more yams and sweet potato instead of rice and flour. They would also add that this dietary shift made tremendous improvements to their health and finances. Nothing made me prouder than to see how my research at the UWI improved the quality of life for everyday Jamaicans.

But sadly, many never experience such pride from their scholarly endeavors. Scattered throughout the Caribbean are hundreds of scientists and innovators of tremendous talent, engaged in ground-breaking work that can have a real positive impact on our citizenry, communities and country. But their contribution is capped at a thesis or publication shelved in a library. Knowledge they have created simply is never used.

This state of affairs retards the progress of our people, our countries and our region. Recognizing the poor integration of scientists, inventors and engineers in the development agenda, CARICOM has recommended greater collaboration geared toward the development of the region's human resource to develop indigenous capacity for innovation.

Governments globally, position Science, Technology and Innovation (ST&I) as central to advancing economic, social and environmental sustainability. Prosperous countries continue to use science and its applications to address national and global problems such as climate change, environmental degradation, human health, energy security, and corruption.

Unfortunately most Caribbean Countries accept this only in theory as is demonstrated by our undeveloped frameworks supporting ST&I. The Caribbean only accounts for 0.1% of the global expenditure on research and development. This simply means that our countries have some of the lowest investments in R&D. Only four of the English-speaking Caribbean states have promulgated national policies for ST&I, and only one has a strategic implementation plan. We do not have a culture of using data to develop and monitor policies in the region. There is a gross absence of scientometric data to gauge the progress and contribution of the ST&I landscape in the Caribbean.

Noteworthy is the fact that the relationship among our scientific community and government is highly fragmented. As is the case with every other nation on earth ST&I occurs in a complex multi-sectorial landscape.

So take a look around this room. You were all invited particularly because your institution is a key gear in the region's machinery of innovation. But are you working systematically with all the other gears in the audience? Are you working with a shared agenda and toward a common goal? The likely answer is no.

The Caribbean suffers from regional, national and sometimes even institutional division. The ecosystem of innovation in its current state will not sufficiently generate, store and transfer knowledge and technologies to promote growth, competitiveness and efficient delivery of public goods. And the fact is, that as long as the innovative system continues in its incoherence and fails to demonstrate its impact on development, **not with scientific data but with socio-economic data**, Cabinets will not prioritize resourcing science, technology and innovation in our countries. This is a hard truth but one we must face.

But together we have the power to change this truth. And INGSA is key to this transformation. The enhanced capacity of the workshop participants is the first step to strengthening the partnership and neutralizing the language between policy practitioners and scientists.

Slow but significant changes in the social, economic, political, environmental and technological landscape have immense potential to create an uncertain, unpredictable and highly disruptive future in the Caribbean. Megatrends in climate change, demographic shifts, natural resource and energy security and globalization require that science advice becomes a natural part of the policy response to these changes.

The rapid development of technologies across the globe such as robotics, the internet of things, big data, bioengineering, artificial intelligence and space travel will transform or disrupt the lives of the Caribbean people. So for example, the Business Processing Outsourcing (BPO) sector is set to become a major employer of youths in Jamaica. We are targeting 200,000 new jobs in four years. However, it is well acknowledged globally that artificial intelligence will disrupt the BPO sector, as it provides cheaper and more efficient ways to provide business support services across the globe. And I must admit that many of my Cabinet colleagues find it difficult to accept this reality. But does the scientific community, that understands AI, have an obligation to provide support to government as they implement BPO related policies and programmes? Absolutely. Science advice is critical to predicting and analyzing any R&D and technologies that could potentially create new or disrupts markets and value networks within our region.

Does science advice have a role to play in enhancing the Caribbean identity in those sectors and markets that seem less obvious? How can science add value to our music, our tourism product, our cuisine, our athletic prowess, our bio economy, our indigenous religions? Can we ensure that new knowledge and technologies will fully exploit opportunities especially in areas where we have a comparative and competitive advantage on the world stage? Yes we can and yes we should. Policy development activities are generally very dynamic in these areas and it is essentially that the science interface is well established.

A case in point, after decades of lobbying and advocacy by the medical and scientific communities, I am proud to announce that Cabinet has finally given approval for 'Nutraceuticals' to be named as a separate category in our Food and Drug Act. No longer can we ignore the scientific evidence that supports the efficacy of some of Jamaica's medicinal plants and practice. It is through the National Nutraceuticals Industry Steering

Committee lead by the National Commission that we have made progress in ensuring that policy enhances what makes our country unique.

And if you really consider it, there is absolutely no area of policy development that can succeed without facing and charting scientific evidence. I am challenging every scientist here tonight to ask themselves these questions. What role do I play in ensuring that by 2030 there is:

- No poverty?
- Zero hunger?
- Good health and well –being?
- Quality education?
- Gender equality?
- Clean water and sanitation?
- Affordable and clean energy?
- Decent work and economic growth?
- Strong industry, innovation and infrastructure?
- Reduced inequalities?
- Sustainable cities and communities?
- Responsible consumption and production?
- Climate action?
- Preservation of life below water and on land?
- Peace, justice and strong institutions?
- And partnerships for all of these United Nations sustainable development goals?

It is no longer sufficient for the scientific community to consider itself as an end which is inherently justified as it seeks knowledge regardless of its perceived value. But instead the scientific community must consider itself the indispensable means by which we will achieve national, regional and global development.

And in small and isolated economies such as those in the Caribbean scientists must become head cook and bottle washer, as we would normally say in Jamaica. Not only are we required to be academics but also advisors, investors, tech-transfer specialists, advocates, inventors, policy makers, fund-seekers, educators and publishers. For now we must wear many hats if our knowledge is to transcend the realm of creation into that of exploitation. Our humanity depends on it. Because at every point in man's advancement; science and discovery has been the bedrock.

No longer are my ideas theoretical. It is rare that I stand in a room of equal numbers of policy makers and scientists. And I truly believe that the time is now.

It is time for scientists to find more effective means of articulating the value or outcomes of their scientific work on development goals.

It is time for policy makers to shun the inherent fear of science, technology, engineering and mathematics.

It is time to create real tangible mechanisms to integrate science advice into the macro-economic planning infrastructure.

It is time to strengthen partnerships within the Global South as we all aim at reducing poverty and inequality.

It is time for academies, universities, schools, and research funding agencies to align their agendas with that of national and regional interests.

It is time that the Caribbean move beyond this ideology and rhetoric of science for policy and policy for science and instead become practical and programmatic.

There is a famous quote that says 'the future depends on what you do today'. It took South Korea 18 years to move from an efficiency-stage economy to an innovation-driven

one. It took Malaysia 19 years to transition into the modern economy it is today. It took South Africa, 20 years to see tangible outputs from its increased investments in its ST&I in a post-apartheid world. Jamaica has 12 years to reach its Vision for 2030.

Ladies and gentlemen, the time is now.

In closing I wish to congratulate the individuals and institutions that have been named to the INGSA Latin America and Caribbean Chapter based in El Salvador. As INGSA implements its strategic objectives across the world we hope this small archipelago in the Atlantic will not only benefit from, but will make a stellar contribution to strengthening the science-policy interface globally.

I look forward to outcomes from our installation into this International Network and hope it will contribute to the Caribbean being *the place of choice to live, work, raise families and do business*' and *'achieve a sustainable planet, people, prosperity, peace and partnership'*.

Many thanks for your company and do enjoy the rest of the evening's proceedings.