

# **Science and Technology Conference 2017 (SnT2017)**

## **High-level Opening**

CTBTO Vienna

June 27<sup>th</sup>, 2017

**HRH Princess Sumaya bint El Hassan**

Ladies and Gentlemen:

It is a pleasure, and a great privilege to address you all at the Science and Technology Conference 2017. This gathering, which represents a great and enduring coming together of science and policy, highlights to all that a commitment to peace through science and technology delivers results that other forms of international engagement may never achieve.

Indeed, the needs and objectives of CTBTO are so heavily reliant on the innovative capacity of our global scientific community. Through your invaluable work, you demonstrate how dependent we all are as a human family, on the abilities of those amongst us who have the talent and training to progress our technological capacity. CTBTO ensures that innovation is deployed for verification and monitoring so that we may all feel more secure, and your model of collaboration and cross-border cooperation, in the form of a unique International Monitoring System, ensures that stations distributed globally can detect nuclear tests and unbiasedly report activities that might pose a threat to all of us.

Perhaps the most inspiring aspect of your work is that those technologies which are deployed to avert manmade disasters and dangerous conflict, also have such vitally important civilian applications - For those seismic stations are uniquely placed to detect earthquakes, and to

act as early-warning systems for tsunamis. The underwater facilities can also be used to track whale migration and to inform us of important developments in our natural world.

Whichever form of detection you seek to improve in order to help keep us safe and informed – from seismic to hydro-acoustic, and from radio-nuclide to infra-sound – we must all agree that we need a fully supported and independent science community to bring our societies safely into a future freed from conflict and filled with opportunity. Indeed, monitoring and verification will become far more important to our people and our planet as we progress through a rather uncertain century.

The CTBT is of course a prime example of a treaty born out of the collaborative efforts of diplomats and scientists – each community operating with drive and determination in their own spheres of expertise. While committed diplomats spent so many years negotiating the treaty, the

scientific community worked tirelessly to develop the technologies that were essential to make the treaty work beyond the negotiating table. This was a wonderful example of science and policy working together to make our world safer and more hopeful.

I am delighted to note that your organization has gone from strength to strength since those early days of innovation and negotiation. As we join together here today, I believe that I may allow myself to say that the Dr Zerbo, the Executive Director of CTBTO, and myself are very much in agreement that security issues cannot be decoupled from developmental issues, and that yours is one of those few vital organisations that work tirelessly to enable change through good science and committed diplomacy. For unheeded development challenges must inevitably become security challenges. The true path to sustainable development is through a serious commitment

and investment in science and technology that enables opportunity and empowers prosperity.

I hope that I may claim my country of Jordan as a firm ally in this mission. Indeed, we are committed to making science a core part of our regional diplomatic efforts and our national development objectives. In this regard, we were delighted to host the official opening of SESAME, the Synchrotron-light for Experimental Science and Applications in the Middle East, just over a month ago. I know that Dr Zerbo and so many of you in this room today will understand me when I say that we are truly excited to have such a cutting-edge research facility on our doorstep so that we may strive to develop a model for Open Science that suits and supports our nation and our region. It is through Open Science, backed by regional diplomacy, that we will embrace all of our people and help to create opportunity through ingenuity and innovation.

For Science offers so much more than necessary responses to our many challenges – it promises a bold and uniting journey towards finding innovative solutions to those shared challenges. We very much hope that we can make much of the research that will be conducted at SESAME, and elsewhere in Jordan, comprehensible and relevant to a wider audience. Science is humanity’s greatest endowment as we strive to manage our challenged resources and to care for, and heal, our threatened environment.

SESAME is now a beacon of cooperative science in a region where political collaboration is so often absent or thwarted. But it also has the potential to help shine a light into all our communities, one that will illuminate the vast potential of creative innovation to solve problems, to make life better for all of us, and to teach us so much more about ourselves. It is through that process that we may lay the groundwork for durable progress in our communities.

Of course, we must also note the place of science in our cultural identities and our national and tribal memories. For science must be seen as a shared resource, and a common gift, for all our human family. For all of us, our cultural heritage is a creation of the innovative spirits of many, diverse ancestors.

On the evening of the opening of SESAME, I was delighted to host our international and Jordanian guests at the Jordan Museum, so that we could remember that those of us who call ourselves Jordanian today, are descended from so many tribes, races and civilisations, who have been at the centre of timeless conversations on innovation and the application of knowledge for so many thousands of years. We lie at the heart of a region where countless communities and cultures have had to innovate to survive. Today, it is incumbent on all of us to embrace nations where science has lost its place of honour, or where science is seen as alien and unfamiliar. The truth is,

science belongs to all humankind and it must bring its creative benefits to all who need them.

Ladies and Gentlemen: In our fractious world, we seem to face new and especially daunting challenges that often make science seem like a force for division rather than unity. Yet it should not be so – and CTBTO exemplifies that very fact. For so many thousands of generations, creative adaptation and cultural exchange have gone hand in hand in our human story.

I believe that SESAME follows in that tradition and the Jordan Museum, of which I have the honour to be Vice-Chairman, reminds us of what we must strive to do for our families and our communities. We occupy our space on this planet for such a short period, and what we build and what we leave behind will create our legacy. Our lives and legacies must deserve space in our descendants' halls of history and so we must show them that we were worthy of our human gift of innovation.

I am proud to be a partner with the CTBTO through my own organisation, the Royal Scientific Society. We greatly value our friendship with you and we share with you that deep commitment to science for peace and for prosperity. Jordan was honoured to host the Integrated Field Exercise (IFE14) in December 2014, which was facilitated by The Middle East Scientific Institute for Security (MESIS), our sister organization which is hosted on the RSS campus. The purpose of the exercise was to test the CTBTO's ability to conduct an Onsite Inspection in the event that one of their stations detected a nuclear test and was required to verify it. Of course, an Onsite Inspection would only be possible if the Treaty comes into force and that seems like a distant hope today. However, this vital exercise tested the CTBTO's ability to conduct such a test from a logistical viewpoint. It included an enormous deployment of equipment, establishing a command and control ops center, and setting up a media centre. From a technical perspective, the exercise tested 15 out of the 17

techniques that might normally be used in an Onsite Inspection.

Perhaps the most important aspect of this historic Integrated Field Exercise was that fact that it demonstrated how a country with no active stage in the nuclear fuel cycle, was able to play host to the largest verification exercise to date. I am proud to note that as a result of Jordan's commitment, our international community can now share the knowledge that an Onsite Inspection can be conducted. It further highlights that we all have a collective responsibility to ensure the safety and security of our world, regardless of nuclear or other capabilities. Indeed, Ladies and Gentlemen, we are all in this together.

My small nation is very much committed to supporting diplomacy and to sustaining scientific engagement. This year, we celebrate a wonderful year for Science in Jordan, and the region, as we are privileged to host World Science

Forum 2017 at the Dead Sea in November. And our theme could not be more resonant with the mission of CTBTO – We will convene under the banner of ‘Science for Peace’.

I firmly believe that the practice of Science and the deployment of scientific knowledge have never been more central to our regional and global conversations. Many of our region’s conflicts have roots in scientific or resource challenges, or have vital scientific dimensions. The human tragedy of migration, the acute and increasing competition over resources, increasing radicalization due to poor and inadequate education, and a stultifying lack of economic opportunities, all require input from our scientific communities, with support from our politicians and diplomats. Climate change will not be averted or mitigated by ideology or political jockeying, while the plight of vast numbers of displaced people can only be tackled by the collaborative input of natural and social scientists.

In Jordan, I believe we are ensuring that those conversations are central to our national debates. But we are combatting the same forces as so many of you here today experience in your own societies. Our science communities have been vilified by political pundits and mocked by much of the media. As populism shouts down the evidence-based methods that are urgently required to plan progress and ensure the stable management of challenges and change, we must fight evermore determinedly for reason to prevail. The ‘emotionalisation’ of our political spaces will do little to give our children the future we truly owe them.

Ladies and Gentlemen: We look forward to welcoming many of you to World Science Forum 2017, where so many conversations that may begin here today will be expanded and empowered. I wish you every success at this vital conference, and in your future work and I assure you that

we are your partners on this path to balanced and durable progress.