

VOICES

Safeguarding the Arab Renaissance

BY HER ROYAL HIGHNESS PRINCESS
SUMAYA BINT EL HASSAN OF JORDAN

how unlikely they seem at the design stage, must be anticipated and planned for. Regular audits and comprehensive emergency contingency plans must become a feature of all projects in the Middle East.

With the help of the International Atomic Energy Agency (IAEA) and the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), we in Jordan are ready to help shape our nuclear renaissance safely and securely, with a full commitment to non-proliferation and disarmament in our region.

ADDRESSING JORDAN'S ENERGY NEEDS

The greater Middle East is rumbling with an unprecedented hunger for more energy and more reliability in supply. Jordan, Turkey, Egypt and Saudi Arabia are just some of the States that have declared an interest in developing peaceful nuclear technology to meet future energy needs safely and securely. This is an inevitable part of our region's progress away from fossil fuels and from their destructive environmental and political implications. But in our fractured neighbourhood, a need for energy security seems to sit with a deep fear of having nuclear capable neighbours. This should not be the case. The nuclear agenda in our



The Arab world is on the move. Overwhelming poverty, unemployment and frustration have led to the toppling of old monoliths of repression as Arabs unite in their desire to build a better future. There is fear and there is uncertainty, but there is also a distinct absence of ideology in the chants of the hopeful. The fact is, employment, opportunity and dignity will not emerge from profligate political jockeying, but from committed investment in science, innovation and enterprise. The energy that will ignite our region is fuel for progress, not anger at the

other. Much of that energy looks likely to be nuclear.

The recent disaster at Japan's Fukushima nuclear power plant has prompted a renewed focus on nuclear safety around the world. Events at Fukushima have emphasised the need to tighten safety and to learn from the failings of older facilities. In the Arab world, calls have already been made for proposed nuclear projects to make safety an intrinsic part of the design and ongoing management culture of future facilities. Fukushima has taught us that disasters, no matter

region has flipped from military to socio-economic in most right-thinking administrations, while a raft of international agreements and protocols have enmeshed most governments in a peaceful, regional nuclear structure. Measures such as the IAEA Safeguards on peaceful nuclear activities, Additional Protocol measures, the Comprehensive Nuclear-Test-Ban Treaty (CTBT) and the Fissile Material Cut-Off Treaty will change the landscape with the cooperation of most regional actors. We must ensure that the stragglers follow suit and that public perceptions are informed and encouraged by the possibilities of peaceful and safe nuclear development.

THE CTBT: CENTRAL TO GLOBAL AND REGIONAL DISARMAMENT AND NON-PROLIFERATION EFFORTS

At El Hassan Science City (EHSC), our relationship with the CTBTO is greatly valued. The CTBTO's commitment to promoting peaceful development in our region, and around the world, is founded on monitoring activities and strengthened by its facilitation of dialogue and discussion. The value of trust in multinational engagement cannot be overstated, particularly in our region where national social contracts are being renegotiated and an evermore sophisticated population is looking for hope beyond politics. The CTBTO's work greatly enhances cooperative possibilities for nations in transition and for economies on the verge of drawing down their dormant human capital.

Jordan is an ardent supporter of the CTBT and of the efforts of the CTBTO to ensure that testing of nuclear weapons is banned in all its forms. We are proud to give a home to the CTBTO auxiliary seismic station at Tel Alasfar, which has been in operation since 2002, and we believe that the organization is central to global and regional disarmament and non-proliferation efforts. As a signatory since 1996, Jordan has

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many scientists and policymakers who have learnt much from the cultural framework of CTBT institutions. More recently, our strategic decision to adopt nuclear energy for peaceful purposes has added impetus to our efforts in the area of international monitoring and disarmament diplomacy. We believe that the CTBT and other multilateral treaties should be a basic component of the moral obligations and responsibilities of countries seeking to develop peaceful nuclear technologies, or those already in possession of them. It is in this environment that the Kingdom is seeking to go nuclear. Energy is of great concern to all Jordanians as we import a staggering 95 percent of our energy requirements, at a cost of over 20 percent of the nation's gross domestic product.

The process of engagement with the public on nuclear issues is still at an early stage but our intentions are clear. Work has recently begun on a White Paper that will illustrate the benefits of peaceful nuclear energy in the Kingdom. The wide-ranging document will bed its position in the immense energy/water challenge that faces us and will include lessons learnt from Fukushima. The document will highlight the many factors and components of Jordan's nuclear energy programme and will place the nuclear initiative in the context of planned energy diversification, electricity generation and demand, water scarcity and resources, the environment, job creation and capacity building. Of course, it will also take note of the ever-changing geopolitical environment that defines our region for many in

the West. Issues that hold as much importance for us will also be covered, including the regulatory environment, international obligations and the potential benefits to an informed nation that embraces the nuclear option.

BRIDGING THE DIVIDE BETWEEN POLICYMAKERS AND SCIENTIFIC COMMUNITIES

The Jordan Atomic Energy Commission is also beginning a process of engagement with the general public to measure perceptions of nuclear energy and of Jordan's fledgling nuclear programme in particular. This is a process from which we can all benefit. At EHSC, we believe it is vital for the CTBTO to build partnerships not only with Member States but also within Member States, with civil society organizations and the wider public. We are honoured to provide a link that makes this possible. Our expertise can only help in bridging the divide between policymakers and scientific communities, and in making this new nuclear age a peaceful and prosperous one.

USEFULNESS OF CTBT MONITORING DATA

The Jordanian National Data Centre (NDC) in Amman is a key component of our efforts to promote peace through scientific know-how. Currently based at the Jordan Seismological Observatory, we hope that the CTBTO will help us to expand the usefulness of this data repository and the utility of its unique expertise. As a first step to expanding our community engagement, we hope to establish sub-NDCs at several Jordanian universities to maximize the benefits to be derived from the data provided by the International Monitoring System

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Aerial image of El Hassan Science City in Amman, Jordan.

(IMS) and the International Data Centre at the CTBTO. Encouraging universities to use data provided by the CTBTO's facilities would greatly aid the process of broadening civil society involvement in the monitoring process.

Another key goal of our cooperation with the CTBTO is the expansion of Treaty acceptance in the region. To aid this process, we are keen to establish a Regional Data Centre in Jordan. We believe that such a centre would benefit our cooperative work in several ways. Firstly, it would encourage and facilitate researchers from neighbouring countries and help preparations to implement the verification regime beyond our borders. Secondly, it would provide a valuable platform for the use of underappreciated scientific data in other countries. We have gained valuable experience by establishing and expanding the first NDC in the Middle East, with the cooperation of the CTBTO, and we have developed rare technical expertise that should be shared with our fellow Arabs. Jordan is an ideal candidate for the role for many other reasons, not least because of our central location and our open borders. It is my hope that a Regional

Data Centre would eventually lead to the establishment of a Middle East Training Centre, further enhancing opportunities for Jordanian and Arab involvement in international nuclear and energy organizations.

USING IMS DATA TO HELP SCIENTIFIC RESEARCH

A vital step to expanding Jordan's contribution to CTBT goals is our proposal to establish sub-NDCs at some of our top science universities, including Princess Sumaya University for Technology, Yarmuk University, and the Jordan University of Science and Technology. Setting up sub-NDCs at universities would increase the use of invaluable IMS data to aid scientific research in fields as diverse as seismology, geology, the environment and Information and Communication Technologies (ICT).

The Arab world remains far behind the rest of the planet when it comes to nuclear energy. As the count of nuclear reactors on the globe races beyond 450, we Arabs have yet to inaugurate a single one. But the discussion is well under way. Before Fukushima, the nuclear renaissance that had sparked debate

in Russia, India, China and many more diverse and energy-thirsty nations, had also hit the Arab world. Like many countries that have emerged from shaky economic and political transitions, the Arab States will need help and investment to make goals a reality under a shared commitment to safety and security. The rewards for us are ones that the West will share: development, stability and the global contribution to peace and sustainability of a people with ambitions, optimism and the energy to build new societies.

BIOGRAPHICAL NOTE

HER ROYAL HIGHNESS PRINCESS SUMAYA BINT EL HASSAN

is President of the Royal Scientific Society, Chair of the Board of Trustees of Princess Sumaya University for Technology and founder of El Hassan Science City. Princess Sumaya is an advocate of science as a catalyst for change in the Arab World. She champions scientific excellence in education, research and innovation to promote sustainable development in Jordan and the region. The Princess is committed to maximizing human potential through education and opportunity.