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Science & Technology Advice to Foreign Ministries – Challenges in the Middle East

HRH Princess Sumaya bint El Hassan

Among the many and monumental challenges facing nations in the Middle East, finding a voice for science may seem like a low priority. But the need for science to inform policymaking could hardly be greater as resource depletion, unemployment, and rapid and unplanned urbanization challenge governments and the environment at a staggering rate. In some areas, answers are being sought and champions created through political ideology and identity politics. However, the lasting solutions to our region’s malaise lie in good science, innovative technology, and honest communication between scientists, political leaders, and the public. The time has come for science to fight for a place at the very heart of government.

In some instances, it might seem like a science adviser in many parts of the Middle East would have to act in a vacuum because of the absence of an obvious and established “scientific community”—one that supports, acknowledges, and promotes contributions from its members. It is indeed true that the institutional process does not match that in more developed regions. This evolution has been slow for a variety of social and political reasons, and it has led to a sometimes, marked reluctance to create a functioning scientific community. A century of

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instability, centralization, state control, and social rupture has left many parts of the Middle East and North Africa (MENA) with a stilted civil sphere, marked by circumspection and apprehension. This process has had a palpable effect on scientific life, freedom of thought, and engagement. However, we have moved through the worst of this era of civil dampening, and our increased engagement with the wider world—as curious individuals or epistemic communities—has certainly helped new centers of thought and engagement to form in the region. But there is much more active work to do if we are to repair the damage wrought by several decades and build what should have evolved over several generations.

At the Royal Scientific Society, we are doing what we can to build networks and establish functioning knowledge hierarchies so that science can run through embedded channels for education and advice. We host groups of scientists and stakeholders in every format, from low-key roundtable discussions to national and regional conferences. Our department heads and more junior scientists and researchers are encouraged to reach out to their peers around the region and beyond, and to travel to appropriate events and meetings abroad. We believe that facilitating the creation of knowledge clusters and multilayered networks of scientists and researchers will help to put science squarely on the national agenda.

Through our regional engagement, we have seen how fundamentally Arab countries must strengthen the underlying relationships and interactions that scientific researchers and universities have with their communities. This is particularly true in their involvement with the production and services sectors, and with government.

Perhaps more than any other region in the world, building these varied networks of relationships and creating platforms for the exchange of ideas is crucial to stimulating research, development, and innovation, and to driving durable development in Arab societies. In this context, the notion of a senior science adviser to government may seem like the cherry on a cake that remains half-baked. But the role of a science adviser in this context is challenging rather than unrealistic.

We need advisers who have the appeal and the intelligence to highlight both deficiencies and opportunities, without putting noses out of joint. It is quite a job description, but this is what it must be in our part of the world, because we do not have the physical infrastructure where advice is expected or sought. We also all too often lack the non-virtual interactive structures that are needed to create the basis of policy (i.e., open communication based on trust and respect).

In societies where family ties, religion, and tribe still matter so much, a successful adviser must rely more on diplomatic skills and charisma, and on his or her ability to communicate with unconnected parties who should be stakeholders in the same national project—but who often do not operate in that way.

Much work has been done in Jordan to cement the role of knowledge in our fast-changing society, and to open channels of communication and debate. People are curious and, more than ever, they look to science for answers. Perhaps the

first undertaking of a science adviser in this context should be to capitalize on this curiosity—to build science communications structures in the Kingdom and beyond, so that good science is heard above all else.

It is, of course, a question of balancing the dream with the reality when it comes to placing science on the social and political agendas. Many Arab countries were perhaps too quick to call themselves “Knowledge Societies” in their hurry to appear “modern,” and to claim prematurely that they were becoming “knowledge economies.” Indeed, spending money is not necessarily the same as building capacity in this regard—often one counteracts the other.

The truth is, the concept of a knowledge economy was formulated for developed economies that enjoy a dense network of research institutions, a high degree of investment in public and private-sector research and development, and a strong knowledge infrastructure. A science adviser in the Middle Eastern context must be brave enough to call out those who claim too much too soon.

I believe that we must all accept that we are building a science advisory infrastructure from a low but solid base. We must focus on creating opportunities for increased research activity and innovation, and we must not carelessly assume that these processes will come about spontaneously through the organic growth of the academic sector, or simply through increasing entrepreneurial activity.

Durable and equitable growth in public and private research and development requires guidance and support, and governments must be involved in facilitating and acquiescing to this. Good science advice from the outset is crucial to developing good policies in this regard.

Any science adviser in the region must be strong and resilient—he or she must insist on programs and projects that are based on first-class science rather than short-term impact. There has been a tendency in the region to favor glamorous projects over good governance in the application of science, as large projects more often than not involve foreign talent in their design, execution, and initiation. Far more damagingly, they often become staffed by foreign talent too, with the result that no real benefit is imparted on the society in question, and no great boost is given to instilling the scientific method in the thought processes of the local population or the decision-making of government. These projects become islands in a sea that is changing far less rapidly than it appears.

A science adviser in our region must indeed be a maverick. They must win the respect and trust of government, civil servants, scientists, and the public. In many developed nations, science forms part of most thought processes in the public and private spheres, so the voice of a science adviser need not seem strange or exceptional. In the MENA region, science has yet to win that pervasive positioning so that government and the public are geared-up to hear the voice of science whenever it should be heard.

For science to grow in our region, we must have the committed and equal involvement of multiple stakeholders, including government, industry,

universities, and civil society, and it must be from both the top-down and the bottom-up. In the midst of this, we urgently need advisers who are prepared to push this agenda and manage it as well as possible. They must also foster a culture of science communication, including building the capacity of competent science communicators within government and the private sector.

They must also be prepared to talk across borders in the hope of finding equals in neighboring capitals. In our region, we urgently need science voices to advocate for cooperation across the Arab Region. This could indeed prove difficult and, at times, unpopular.

Our science advisers should strive to capitalize on youth and diasporas as potential champions of science in the wider community and future political life. This is perhaps the most efficient way to ensure that science advice becomes second nature in a swift span of a generation, repairing the damage wrought by a century of turmoil. **SD**