



A HIGH-LEVEL PLEDGE TO WOMEN, YOUTH

The developing world must mount bold efforts to prepare a new generation of scientists – especially women – to address the historic challenges confronting humanity.

 by Edward W. Lempinen

High-level science leaders from across the developing world urged a deeper commitment to educating and training young researchers and women researchers to drive economic development and address global challenges.

At the opening day of the 25th TWAS General Meeting in Oman, the leaders described efforts in their countries to raise a new generation of innovators, from mentoring and science academies to overseas training, and even anti-poverty programmes to support the strong development of young children.

TWAS President Bai Chunli sounded the theme in his opening address to TWAS members and in an address to more than 500 dignitaries, high-ranking policymakers and global science leaders at the opening ceremony.

“We recognize our responsibility to nurture a new generation,” Bai said. “We should take a leadership role in helping educational and scientific institutions learn how to support women and bring out their best scientific talents. Leadership also requires that we elect more women as members of TWAS.”

Throughout the four-day meeting, leaders agreed that a broader corps of global researchers would be essential for addressing climate change, disease, even recovery from civil conflict.

Biologist Roula Abdel-Massih, a TWAS

Young Affiliate and associate professor of the University of Balamand in Lebanon, shared that message on Oman TV’s English News Bulletin. “If you look at the challenge or the battle against hunger, the challenge against poverty, and even the new battle against terrorism, all this, the solution is in educating the youth in science and technology and allowing them ... to create new solutions,” she said.

ADVANCING WOMEN IS ‘IMPERATIVE’

TWAS and its global partners won praise for their PhD programmes, research grants and other measures for young scientists, and for supporting the Organization for Women in Science for the Developing World [OWSD]. “TWAS since its founding in 1983 ... has ensured a strong and active support to young scientists from developing and emerging countries,” said diplomat Ugo Ferrero from the Italian Ministry of Foreign Affairs.

But there was a view that TWAS could do more, especially for women. At the meeting, TWAS elected 46 new Fellows, 10 of them women. Of 1,148 members, only 119 – 10.4% – are women.

The low numbers of women in TWAS’s membership and leadership show “there is still quite some way to go,” said Hannah Akuffo, acting head of the research cooperation unit at the Swedish International Development Cooperation Agency [Sida].



▲ From top: Roula Abdel-Massih, a biologist and TWAS Young Affiliate; Hannah Akuffo, Swedish International Development Cooperation Agency [Sida]

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▲ Students in a laboratory at Sultan Qaboos University in Oman (Photo: Sultan Qaboos University)

“Gender equality is ... a development imperative and a business imperative,” said Anna Paolini, director of the UNESCO Doha Office and its representative in the Arab States of the Gulf and Yemen. “The stakes are high even globally, and so are the challenges, with women representing only 30% of researchers at the global level.”

DIFFERENT COUNTRIES, A COMMON VISION

At the annual TWAS meeting of science ministers and high-level policymakers, leaders described how their nations are making far-reaching investments in education to build science and engineering talent.

Oman has built its education system from the ground up since 1970, said Oman Research Council Secretary-General Hilal bin Ali Al Hinai. In 2013, it invested about 13% of its budget, or 4.6% of GDP, in education. Oman provides grants and prizes for undergraduate research and graduate-level student research, he added,

drawing them into the culture of competitive science.

In Azerbaijan, improving education is “the highest priority of state policy”, said Ali M. Abbasov, minister of Communications and High Technologies. The government is investing in infrastructure and offering grants and scholarships, he said. At state expense, more than 5,000 young Azeris are enrolled in European and US universities for undergraduate and graduate studies.

South Africa offers competitions and expos to inspire scientific interest in young people, said Zanele kaMagwaza-Msibi, deputy minister of Science and Technology. Last year, she said, South Africa funded nearly 10,000 postgraduate students; doctoral graduates are up to 1,700, from 1,200 five years ago.

Brazilian investments have focused on childhood poverty and school attendance, said Glaucius Oliva, president of the National Council for Scientific and Technological Development [CNPq]. Through new university facilities and financial support, enrolment in higher education rose from 2 million in 2000 to 7.2 million in 2013. Brazil’s “Science without Borders” initiative has won global acclaim for sending 100,000 young scientists abroad for study and research.

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Anna Paolini

In developing nations with large youth populations, cultivating their talent is essential, said Egyptian Minister of Agriculture and Land Reclamation Adel E.T. El-Beltagy, a member of the TWAS Council.

“Either they will be a liability for the country, or they will be potential for the future to build on,” he said. “The only ticket for you is to give these young people knowledge and knowledge and knowledge, and then they can work with the world to form this global alliance for peace and prosperity.” ▣

▼ From left: Anna Paolini, director of the UNESCO Doha Office and its representative in the Arab States of the Gulf and Yemen; Ali M. Abbasov, minister of Communications and High Technologies, Azerbaijan; Zanele kaMagwaza-Msibi, deputy minister of Science and Technology, South Africa

