

Science education: Meeting in Malaysia

25-28 May 2015

In May this year, a series of scientific events were hosted in the Malaysian capital, Kuala Lumpur.

At the core was the meeting of the Science Advisory Board to UN Secretary General Ban Ki Moon, chaired by Jörg Hacker of the German National Academy of Sciences, Leopoldina, and Abdul Hamid Zakri, science adviser to the Malaysian Prime Minister, and organized by UNESCO Director General, Irina Bokova.

In parallel, IAP joined with ISTIC [www.istic-unesco.org], the Malaysian Academy of Sciences, and Malaysian government agencies to organize the International Science, Technology and Engineering (STEM) High Level Policy Forum on 'Evidence Based Science Education in Developing Countries'.

The forum which took place on 26-27 May, was attended by some 160 people from 19 countries. Among them was IAP co-chair, Mohamed Hassan, who gave the opening address.

Hassan introduced the IAP and the ongoing development of the InterAcademy Partnership [www.interacademies.org]. He also challenged delegates to tackle two questions: in science education – how to get proper STEM education, especially inquiry-based science education (IBSE), into the core curriculum of madrasas and other religious schools; and in science literacy – how to improve people's access to science centres and museums, especially in the many African countries where they currently do not exist.

The IAP Science Education Programme (SEP) Global Council also met on 26 May and, taking advantage of their presence in Kuala Lumpur, several SEP members were invited to give presentations or acted as session chairs, including Petra Skiebe-Corrette (Germany), Carlos Bosch-Giral (Mexico), Manzoor Soomro (Pakistan), Ahmadou Wague (Senegal) and Mustafa El-Tayeb (Sudan). In addition, Wynne Harlen, former IAP SEP Global Council member, presented the new IAP publication 'Working with Big Ideas of Science Education' [www.interacademies.net/Publications/26703.aspx]. During the meeting, the chair of the IAP SEP, Dato Lee Yee Cheong, arranged for Harlen to present the book to UNESCO Secretary General Irina Bokova. Other speakers included Massimo Amadio, senior programme specialist, Knowledge Creation and Management in Curriculum and Learning, UNESCO International Bureau of Education, Geneva.

During the forum, break-out table discussions were used to develop a series of recommendations, among which were: to start small pilot IBSE programmes wherever possible; to reduce the curriculum to focus more on connected core ideas ('Big Ideas'); to provide IBSE teacher training both pre- and in-service); and to bring student assessment in line with IBSE learning methods.

These recommendations – along with others deriving from other meetings held during the week – were presented to Dato Seri Idris Jusoh, Malaysia's Minister of Education II, during a final plenary session. Minister Jusoh confirmed that he would ask the Malaysian delegation to UNESCO to formally present the various recommendations to UNESCO.

At the end of the week, the Malaysian Academy of Sciences arranged a visit to a local primary school that had acted as a pilot school for IBSE. Five members of the IAP SEP Global Council attended, along with IAP coordinator Peter McGrath and two presenters from Brunei who have been implementing IBSE there. The visitors were able to witness ongoing practical science lessons by students aged 7-8 and 10-11 being carried out in well-equipped, dedicated laboratory space, as well as touring a herb garden, used for both nature and art studies.