

Celebrating UNESCO International Literacy Day: 8 September 2013



The IAP Science Education Programme (SEP)

The great challenge of the 21st Century confronting humankind is growing global population consuming beyond the resources of planet earth. The challenge is compounded by global poverty and global climate change.

The prerequisite to tackle the above challenges is human capital development through education and literacy.

Whether in social and economic uplift of the human condition such as alleviation of poverty, improved nutrition, health and general wellbeing, science, engineering and technology (S.E.T) will be pivotal; so also in climate change adaptation and mitigation measures.

Thus 21st education and literacy must have a significant science literacy and science education content first to assure the necessary supply of S.E.T skilled and competent human capital to tackle global challenges and secondly to make society to be S.E.T literate to support S.E.T.

IAP SEP has been promoting with considerable success “Inquiry-Based Science Education” (IBSE) or “Learning by Doing” from kindergarten to high school. Besides making teachers and students enjoy the discovery of scientific precepts through inquiry and experimentation, IBSE instills in teachers and students the evidence-based learning approach that doubts any hypothesis unless proven by fact through experimentation. In this era of prolific information dissemination and pollution through cyberspace, it is most important that every human being should be able to discern whether such information is true or false. Science literacy and science education would have equipped him or her with such faculty.

The IAP SEP Global Council with its partners, including the International Science, Technology Innovation Centre for South-South Cooperation under the Auspices of UNESCO (ISTIC) has carried out a number of activities during 2013:

February 2013: An International IBSE Policy Roundtable in Khartoum, Sudan together with a training program for teachers from Sudan and other African countries. This event was hosted by the Future University Sudan and supported by the Federal Ministry of Education Sudan and the Ministry of Education, State of Khartoum. IBSE trainers were from the Regional Education Centre for Science and Mathematics (RECSAM), and Penang Malaysia of the South East Asia Ministers of Education Organisation (SEAMEO).

May 2013: An International IBSE Policy Roundtable was held during the ISTIC 5th Anniversary Conference, Kuala Lumpur. The Conference was officiated by Her Excellency, Irina Bokova, UNESCO Director General. The IAP SEP Council also held its 2013 Council meeting.

July 2013: ISTIC held a high level IBSE Roundtable in Jakarta at the Ministry of Education, Indonesia. UNESCO Regional Science Bureau for Asia Pacific was a supporting partner. The keynote speaker was Dr. Bruce Alberts, US President Obama's First Science Envoy to Indonesia.

October 2013: ISTIC together with La Main a la Pate (LAMAP) will hold a week long IBSE training program for teachers from ASEAN countries and Timor Leste in Bandung, Indonesia. The training workshop is hosted by the SEAMEO Centre for Improvement of the Quality of Education in Science (QITEP).

November 2013: Conference on "Assessment of Science Learning: Trends and Challenges" organized by the US-Mexico Foundation for Science (FUMEC).

End 2013: The Arab Academy of Sciences intends to hold a high level IBSE roundtable in Beirut, Lebanon. ISTIC is partner together with LAMAP.

In 2014, the Association of Academies of Sciences and Scientific Societies in Asia (AASSA) together with the Korean Academy of Science and Technology (KAST), Academy of Sciences Malaysia (ASM), Thai Academy of Science and Technology (TAST) and ISTIC will be holding two International Workshops on Science Literacy and Science Communication in April/May and August/September, proposed venues are Kuala Lumpur and Seoul. IAP/LAMAP/ISTIC intends to organize an IBSE/Science Literacy Conference and Training Workshop for member countries of ECO under the aegis of the ECO Science Foundation. The proposed location for the Conference is Islamabad, Pakistan. Other planned activities in 2014 include:

February 2014: ISTIC/LAMAP intends to hold a second IBSE training workshop in Khartoum, Sudan. The host will be the Future University Sudan.

May 2014: The African-European-Mediterranean Academies for Science Education (AEMASE) will hold an International Conference on Science Education hosted by the Accademia Nazionale dei Lincei in Rome. It is likely the Conference will also embrace science literacy in its scope.

October 2014: The IAP SEP will hold its biennial Conference in Beijing, China to review progress in IBSE and adopt ongoing actions in science literacy. The event will be hosted by the China Association for Science and Technology (CAST).

IAP is a global network of the world's science academies, launched in 1993. Its primary goal is to help member academies work together to advise citizens and public officials on the scientific aspects of critical global issues. The IAP Secretariat is hosted by TWAS - the academy of sciences for the developing world, and IAP activities are supported by the Government of Italy and by in-kind contributions of science academies worldwide. For more information on the IAP Science Education Programme (SEP) please visit: <http://www.interacademies.net/Activities/Projects/12250/18276.aspx>