



**Science Council of Asia**

**Foundation for Sustainable Development to  
A Prosperous, Harmonious and Greener Asia**

**2015–2016**

## CONTENTS

Message from the President .....	1
Short History .....	3
Organizational Structure .....	4
Member Organizations .....	5
Officers .....	12
SCA Conferences .....	14
SCA Joint Projects .....	28
Statutes and By-laws .....	30

# Message from the President

I am now on the second year of my term as President (2014-2016) of the Science Council of Asia. It was no easy task to take over the reins from our previous President, Prof. Nordin Hasan of Malaysia, but during the past years he has continued to be an officer of the Council, providing us with the benefit of his wide experience in science and scientific organizations in Asia and their role in sustainable development.

The SCA has during the past year been able to expand its membership to include two more institutions from South Asia, the Pakistan Academy of Sciences (PAS), which becomes the first SCA member from Pakistan and the Indian National Science Academy (INSA). While congratulating them on becoming members of SCA, I have no doubt that their commitment to science and the objectives of the SCA, particularly the exploitation of science in a sustainable manner for development will make them sources of strength for the SCA. We are confident that many more institutions in Asia will seek membership of SCA in the coming years and help strengthen the institution.

We have just held a successful Conference in Cambodia on the theme, Science and Technology for Culture, which attracted over 170 participants. Realizing the significance of the theme and the problems many countries had in the effective use of Science and Technology to preserve, maintain and develop their cultural heritage and associated archaeological sites, the SCA made an important declaration on the theme, which we hope will inspire countries in Asia to focus on solving these problems. I must express my thanks to the Institute of Technology of Cambodia (ITC), the Ministry of Education, Youth and Sport of Cambodia and the Ministry of Culture and Fine-Arts of Cambodia for organizing the Conference. We are in particular thankful to our Vice-President, Dr. Om Romny and his team from ITC for the great effort they made to ensure that the Conference was a success.

The SCA has decided to constitute a committee to develop a strategy on how its future activities and organizational directions can help it play a greater role in Asian science and better meet its aims and objectives. The Committee has now been established and we are sure that implementation of the Committee's recommendations will significantly improve SCA's visibility in Asian science. The SCA is now a member of the International Social Science Council (ISSC) and its application for Regional Scientific Associate status in the International Council for Science (ICSU) is being processed. While membership will assist SCA in its endeavours, we must realize that we can only expand only by ensuring more funding is available for SCA activities.

While most countries in Asia today aspire to achieve their development goals through economic growth, very few of them have dedicated programmes aimed at exploiting science and technology to promote economic growth. It would be in the interest of SCA through its activities to demonstrate the role that science and technology can play in such development, while emphasizing the need to carry out these strategies in a sustainable manner. Technological development in the past, at least in the less developed parts of Asia, has all too often not paid sufficient heed to environmental issues, sometimes even ignoring health concerns of workers, the local population and consumers of products. SCA has an important duty to the people of Asia in ensuring that the focus is not merely on development, but on sustainable development. This is in keeping with SCA's aim to work through science towards a prosperous, harmonious and greener Asia. Although this is indeed an ambitious task, I hope that we will be able to make some progress in achieving this aim during the next few years. It is in keeping with this objective that my institution, the National Academy of Sciences of Sri Lanka

# Message from the President

plans to organize the 2016 Conference in May 2016 on the theme Science for the People: Mobilizing New Technologies for Sustainable Development in Asia.

I have no doubt that I will have the full cooperation of our member organizations, office bearers and the Secretariat in working towards ensuring that the SCA will move forward in the next year.

Vijaya Kumar (Prof.)

President

Science Council of Asia 2014 - 2016



*V. Kumar*

# Short History

The Science Council of Japan hosted the Asian Conference on Scientific Cooperation (ACSC) in Tokyo a total of eight times from 1993 to 2000 with the aim of promoting cooperation in scientific research among Asian countries. Invited to the conference were leading scientists from Japan, China, India, Indonesia, the Republic of Korea, Malaysia, the Philippines, Singapore, Thailand, and Vietnam. As scientists from these ten countries developed trust through their participation in the ACSC, they came to recognize the necessity of transforming the ACSC into a permanent and independent entity to pool the wisdom of the scientists from this region and communicate the results of their research to the rest of the world. Such a framework would help the region more actively address the diverse and urgent science-related issues common to Asian countries, including population problems, medical care, food, water, energy, and knowledge of and education in the sciences.

The ACSC completed its mission at its eighth meeting held in May 2000, when representatives from the ten countries established a new scientific organization named the Science Council of Asia (SCA). The first SCA conference was held in Bangkok, Thailand, in May 2001.

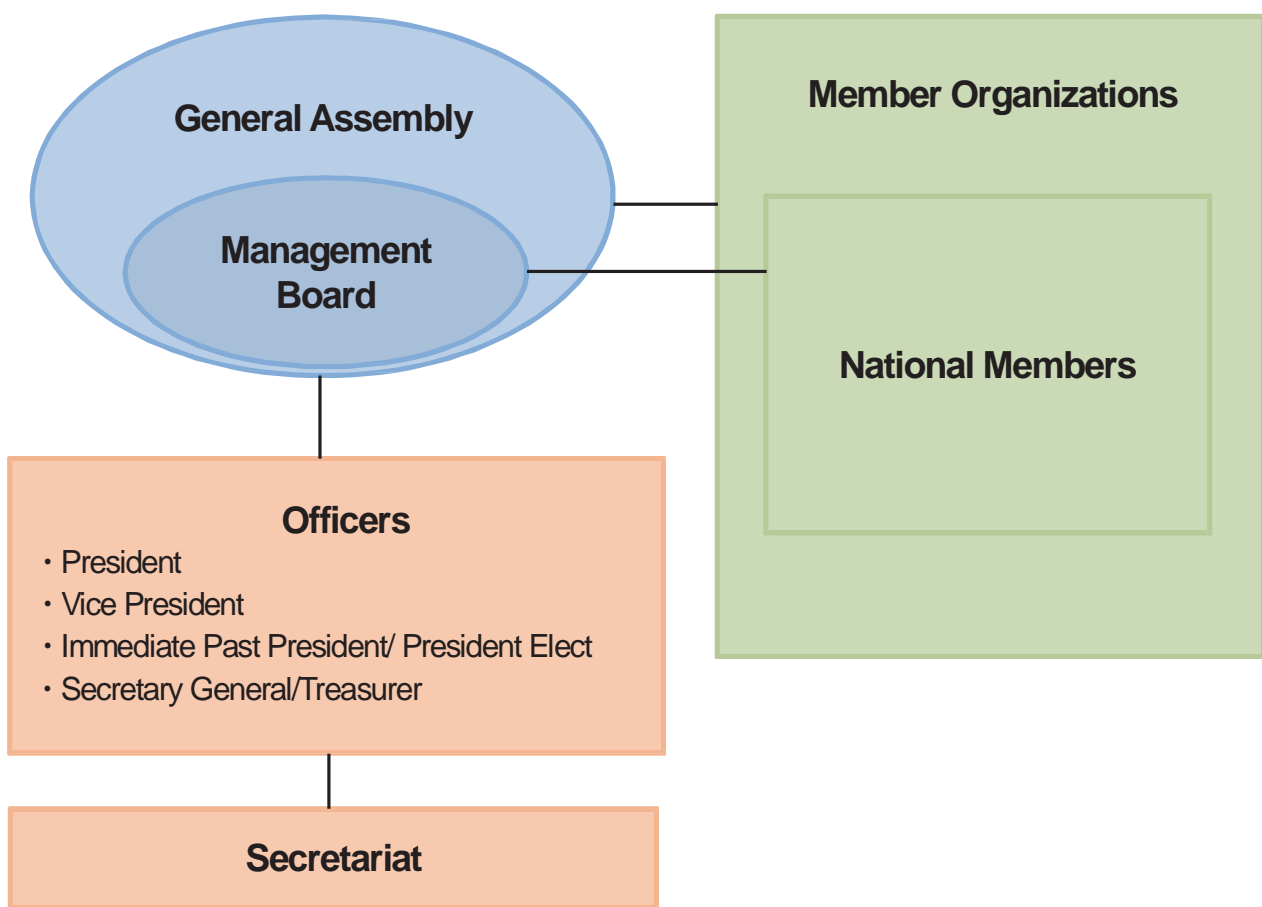
The annual SCA conference is held on a rotational basis so that each member country/region can actively participate in and contribute to the SCA. The annual conference consists of a biennial General Assembly, a Management Board Meeting, and a Symposium which provides for discussions among scientists, engineers, policymakers, and students from Asia. The membership of the SCA was expanded to the total number of 18 member countries/region and 31 member organizations.



# Organizational Structure

The SCA is composed of eligible organizations from member countries. The SCA does not collect membership fees from member countries at present.

The SCA is governed by the Management Board which consists of one designated representative from the national member of each member country/region. The SCA Secretariat is housed at the Science Council of Japan. The General Assembly shall be held once in two years and Management Board Meeting shall be held at least once a year.



# Member Organizations

## BANGLADESH

### Bangladesh Academy of Sciences (BAS)



National Science and Technology Museum  
Bhaban, Agargaon, Dhaka-1207, Bangladesh  
Tel: +880-2-9110425 Fax: +880-2-8117049  
URL: <http://www.bas.org.bd/>  
*Prof. Mesbahuddin Ahmad, President*

## CAMBODIA

### Institute of Technology Cambodia (ITC)



Russian Federation Blvd., P.O. Box 86, Phnom Penh, Cambodia  
Tel: +855-23-880370 Fax: +855-23-880369  
<http://www.itc.edu.kh>  
*Dr. Om Romny, Director General*

### Royal Academy of Cambodia (RAC)



Russian Federation Blvd., Sangkat Kakab, Khan Porsenchey, Phnom Penh,  
Cambodia P.O. Box 531  
TEL: +855-23-890180 FAX: +855-23-890180  
URL: <http://www.rac-academy.edu.kh>  
*H. E. Dr. Khlot Thyda, President*

## CHINA

### China Association for Science and Technology (CAST)



3 Fuxing Road, Beijing 100863, China  
Tel: +86-10-68571898 Fax: +86-10-68571897  
URL: <http://www.cast.org.cn>  
*Prof. Changgen Feng, Vice President*

## CHINA: TAIPEI

### Academia Sinica



128 Academia Road, Section 2, Nankang, Taipei 11529, Taiwan  
Tel: + 886-2-27898797  
URL: [http://www.sinica.edu.tw/main\\_e.shtml](http://www.sinica.edu.tw/main_e.shtml)  
*Prof. Yu Wang, Vice President*

# Member Organizations

## INDIA

### Indian Council of Social Science Research (ICSSR)



JNU Institutional Area Aruna Asaf Ali Marg, New Delhi 110067, India  
Tel: +91-11-26741849/50151 Fax: +91-11-26741836  
URL: <http://www.icssr.org>  
*Prof. Sukhadeo Thorat, Chairman*

### Indian National Science Academy (INSA)



Bahadur Shah Zafar Marg New Delhi-110002, India  
Tel: +91- 11-23221931-50(20 Lines)  
Fax: 011-23221959; 23231095  
*Prof. Rajendra Prasad, Vice President*

## INDONESIA

### Indonesian Institute of Sciences (LIPI)



Sasana Widya Sarwono Bld., 2<sup>nd</sup> Flor, Jl. Jend. Gatot Subroto Kav. No. 10,  
Jakarta 12710, Indonesia  
Tel: +62-21-5225641 Fax: +62-21-5225709/5225640  
URL: <http://www.lipi.go.id>  
*Prof. Dr. Iskandar Zulkarnain, Chairman*

### Ministry of Education and Culture



DGHE Building 6F, Jl. Jenderal Sudirman, Senayan, Jakarta 10270,  
Indonesia  
Tel: +62-21-5703303 Fax: +62-21-5733125  
(Directorate General of Higher Education)  
URL: [www.kemdiknas.go.id](http://www.kemdiknas.go.id)  
*Prof. Dr. Djoko Santoso, Director General Higher Education*

## JAPAN

### Science Council of Japan (SCJ)



7-22-34 Roppongi, Minato-ku, Tokyo 106-8555, Japan  
Tel: +81-3-3403-1949 Fax: +81-3-3403-1755  
URL: <http://www.scj.go.jp>  
*Dr. Takashi Onishi, President*



## REPUBLIC OF KOREA

### National Academy of Sciences (NAS), Republic of Korea



59, Banpo-daero 37-gil, Seocho-gu, Seoul 137-044, Republic of Korea  
Tel: +82-2-3400-5250 Fax: +82-2-535-8836  
URL: <http://www.nas.go.kr>  
*Dr. Sook-Il Kwun, President*

### Korean Academy of Science and Technology (KAST)



42 Dolma-ro, Bundang-gu, Seongnam-si, Gyeonggi-Do 463-808, Republic of Korea  
Tel: +82-31-726-7900 Fax: +82-31-726-7909  
URL: <http://www.kast.or.kr>  
*Dr. Sung Hyun Park, President*

## MALAYSIA

### Academy of Sciences Malaysia (ASM)



Level 20, West Wing, MATRADE Tower,  
Jalan Sultan Haji Ahmad Shah, off Jalan Tuanku Abdul Halim,  
50480 Kuala Lumpur, Malaysia  
Tel: +6 (03) 6203 0633 Fax: +6 (03) 6203 0634  
URL: <http://www.akademisains.gov.my>  
*Emeritus Prof. Mohd. Nordin Hasan, Fellow*  
(For attention of Dr. MOHD HIZAMDDIN JAAFAR-ICSU)

### Ministry of Science, Technology and Innovation (MOSTI)



Level 1-7, Block C4&C5, Federal Government Administrative Centre,  
Wilayah Persekutuan Putrajaya 62662, Malaysia  
Tel: +603-8000-8000 Fax: +603-8888-9070  
URL: <http://www.mosti.gov.my>  
*Dato' Sri Dr. Noorul Ainur Mohd. Nur, Secretary General*

### Institute for Environment and Development (LESTARI)



Universiti Kebangsaan Malaysia (UKM)  
43600 BANGI, Selangor, Malaysia  
Tel: +603-8921-4149 Fax: 603-8925-5104  
URL: <http://www.ukm.my/lestari/en/>  
*Prof. Dr. Mohd Raihan Taha, Director & Principal Fellow*

# Member Organizations

## MONGOLIA

### Mongolian Academy of Sciences (MAS)



Prime Minister Amar Street 1, Ulaanbaatar, 14200, PO 20a, Box 34 Mongolia  
Tel: +976-11-262247 Fax: +976-11-262247  
URL: <http://www.mas.ac.mn/en/index.php>  
*Prof. Batbold Enkhtuvshin, President*

## MYANMAR

### Myanmar Academy of Technology (MAT)



No.6 Kaba Aye Pagoda Rd., Yangon, Myanmar  
TEL: +95-1-665695 FAX: +95-1-668033  
*Prof. Dr. Thein Oo Po Saw, President*

### Myanmar Academy of Arts and Science (MAAS)



First Floor, Diamond Jubilee, Building of the University of Yangon, Myanmar  
TEL&FAX: 95-1-539635  
*Prof. Thein Myint, President*

## NEPAL

### Nepal Academy of Science and Technology (NAST)



GPO Box 3323, Khumaltar, Lalitpur, Nepal  
TEL: +977-1-5547720 / 5547721 FAX: +977-1-5547713  
URL: <http://nast.gov.np/new/>  
*Prof. Dr. Jibaraj Pokharel, Vice-Chancellor*

## PAKISTAN

### Pakistan Academy of Sciences (PAS)



3-Constitution Avenue, G-5/2, Islamabad, PAKISTAN  
TEL: +92-51-920-4843 FAX: +92-51-920-6770  
URL: [www.paspk.org](http://www.paspk.org)  
*Dr. Anwar Nasim, President*

## THE PHILIPPINES

### National Research Council of the Philippines (NRCP)



Patrocinio Valenzuela Hall, General Santos Ave., Bicutan 1631, Taguig City,  
The Philippines  
Tel: +632-837-6142 Fax: +632-839-0275  
URL: <http://www.nrcp.dost.gov.ph/>  
*Dr. Filemon A. Uriarte, Jr., President*

### Philippine Social Science Council (PSSC)



Philippine Social Science Center, Commonwealth Ave., P.O. Box 205,  
UP Post Office, UP Diliman, Quezon City 1101, Philippines  
Tel: +632-929-2671 Fax: +632-924-4178  
URL: <http://www.pssc.org.ph>  
*Dr. Amaryllis Tiglao-Torres, Executive Director*

### Philippine Association of Marine Science (PAMS)



c/o Cleto Na-nola Jr., Department of Biology, College of Science and Math,  
University of the Philippines, Mindanao, The Philippines  
Tel: +63-82-293-0302/0494 Fax: +63-82-293-0302/0494  
*Dr. Vicente Hilomen, President*

## SINGAPORE

### Agency for Science, Technology and Research (A\*STAR)



Agency for  
Science, Technology  
and Research  
SINGAPORE

1 Fusionopolis Way, #21-10 Connexis, North Tower Singapore 138632  
Singapore  
Tel: +65-68266111 Fax: +65-67771711  
URL: <http://www.a-star.edu.sg>  
*Prof. Hong Wanjin, Executive Director, Institute of Molecular and Cell  
Biology (IMCB)*

# Member Organizations

## SRI LANKA

### National Academy of Sciences of Sri Lanka (NASSL)



120/10 Vidya Mawatha, Colombo 00700, Sri Lanka  
TEL: +94-11-2678770  
URL: [www.nassl.org](http://www.nassl.org)  
*Prof. Vijaya Kumar, President*

### National Science Foundation of Sri Lanka (NSF)



No.47/5 Maitland Place, Colombo 00700, Sri Lanka  
TEL: +94-11-2696771-3 FAX: +94-11-2694754  
URL: [www.nsf.ac.lk](http://www.nsf.ac.lk)  
*Prof. Sirimali Fernando, Chairperson*

## THAILAND

### Science Society of Thailand under the Patronage of His Majesty the King (SST)



c/o Faculty of Science, Chulalongkorn University  
254 Phayathai Road, Patumwan, Bangkok 10330, Thailand  
Tel & Fax: +662-2524516  
URL: <http://www.scisoc.or.th>  
*Prof. Supot Hannongbua, President (till December 31st, 2015)*  
*Assoc.Prof.Napavarn Nopparatnaraporn, President Elect ( President after January 1st, 2016)*

### Thai Academy of Science and Technology (TAST)



128/356 Phayathai Plaza Building, 33A Floor Phayathai Road, Ratchatewee,  
Bangkok, 10400 Thailand  
Tel : +662-129-3108 Fax :+662-129-3107  
URL: <http://www.tast.or.th>  
*Prof. Vichai Boonsaeng, President*

**Ministry of Science and Technology (MOST)**

113 Tran Duy Hung Str., Trung Hoa ward, Cau Giay, Ha Noi, Vietnam  
 Tel: +84-4-3822-8751/8874 Fax: +84-4-3943-9733  
 URL: <http://www.most.gov.vn>  
*Mr. Phung Bao Thach, Director General, International Cooperation  
 Department*

**Ministry of Health (MOH)**

138A Giang Vo Str. Hanoi, Vietnam  
 Tel: +84-4-846-5456 Fax: +84-4-843-0015 (Science and Training  
 Department)  
 URL: <http://www.moh.gov.vn>  
*Ms. Tran Thi Oanh, MSc., Deputy Director, Department of Science and  
 Training*

**Vietnam Academy of Science and Technology (VAST)**

18 Hoang Quoc Viet, Cay Giay, Ha Noi, Vietnam  
 TEL: +84-4-37561725 (International Cooperation Department)  
 FAX: +84-4-37562764  
 URL: [www.vast.ac.vn](http://www.vast.ac.vn)  
*Prof. Acad. Chau Van Minh, President*

(31 organizations from 18 member countries/region)

# Officers (July 2014 - 2016)



**President**  
**Vijaya Kumar**  
President, National Academy of Sciences  
of Sri Lanka (NASSL) Sri Lanka



(from May 2015 to 2016)  
**President- Elect**  
**Mesbahuddin Ahmad**  
President, Bangladesh Academy of  
Sciences (BAS) Bangladesh



**Vice-President**  
**Om Romny**  
Director General, Institute of Technology  
Cambodia (ITC) Cambodia



**Secretary General/Treasurer**  
**Hiroshi Yoshino**  
Council Member, Science Council  
of Japan (SCJ) Japan

## Management Board Members

<b>Mesbahuddin Ahmad</b> , President Bangladesh Academy of Sciences (BAS)	Bangladesh
<b>Om Romny</b> , Director General Institute of Technology Cambodia (ITC)	Cambodia
<b>Changgen Feng</b> , Vice President China Association for Science and Technology (CAST)	China
<b>Won Chi-Huey</b> , President Academia Sinica	China: Taipei
<b>Sukhadeo Thorat</b> , Chairman Indian Council of Social Science Research (ICSSR)	India
<b>Lukman Hakim</b> , Chairman Indonesian Institute of Sciences (LIPI)	Indonesia
<b>Takashi Onishi</b> , President Science Council of Japan (SCJ)	Japan
<b>Yoon-Suk Koh</b> , Member, National Academy of Sciences (NAS)	Rep. of Korea
<b>Mohd Nordin Hasan</b> , Fellow Academy of Sciences Malaysia (ASM)	Malaysia
<b>U Thein Oo Po Saw</b> , President Myanmar Academy of Arts and Science	Myanmar
<b>Batbold Enkhtuvshin</b> , President Mongolian Academy of Science (MAS)	Mongolia
<b>Jibaraj Pokharel</b> , Vice Chancellor Nepal Academy of Science and Technology (NAST)	Nepal

<b>Anwar Nasim</b> , President Pakistan Academy of Sciences	Pakistan
<b>Filemon A. Uriarte</b> , President National Research Council of the Philippines (NRCP)	The Philippines
<b>Hong Wanjin</b> , Executive Director, Institute of Molecular and Cell Biology Agency for Science, Technology and Research (A*STAR)	Singapore
<b>Vijaya Kumar</b> , President National Academy of Sciences Sri Lanka (NASSL)	Sri Lanka
<b>Supot Hannongbua</b> , President Science Society of Thailand (SST)	Thailand
<b>Phung Bao Thach</b> , Director General International Cooperation Department Ministry of Science and Technology (MOST)	Vietnam

## SCA Presidents

May 2000–May 2001	Prof. Dr. Montri Chulavatnatol Vice President, Thai Academy of Science and Technology (TAST)
May 2001–May 2002	Tan Sri Datuk Dr. Omar Abdul Rahman Past President, Academy of Sciences of Malaysia (ASM)
May 2002–May 2003	Dr. Ir. S. Suparka Vice Chairman, Indonesian Institute of Sciences (LIPI)
May 2003–May 2004	Prof. Dr. Ho Wang Lee President, National Academy of Sciences, Republic of Korea (NAS)
May 2004–May 2005	Mr. Thach Can Director General, International Cooperation Department, Ministry of Science and Technology (MOST), Vietnam
May 2005–April 2006	Prof. André Béteille Chairman, Indian Council of Social Science Research (ICSSR)
April 2006–September 2006	Dr. Kiyoshi Kurokawa President, Science Council of Japan (SCJ)
September 2006–June 2007	Prof. Ichiro Kanazawa President, Science Council of Japan (SCJ)
June 2007–May 2008	Prof. Feng Changgen Executive Secretary, China Association for Science and Technology (CAST)
May 2008 - June 2009	Prof. Hong Wanjin Deputy Director, Institute of Molecular and Cell Biology (IMCB), Agency for Science, Technology and Research (A*STAR), Singapore
June 2009 – June 2010	Dr. Jaime C. Montoya President, National Research Council of the Philippines (NRCP)
June 2010 – July 2011	Prof. Batbold Enkhtuvshin President, Mongolian Academy of Sciences (MAS)
June 2011 – July 2012	Prof. Dr. Lukman Hakim Chairman, Indonesian Institute of Sciences (LIPI)
June 2012-June 2014	Prof. Mohd Nordin Hasan Fellow, Academy of Sciences Malaysia (ASM)

# SCA Conferences

The annual SCA conference is held on a rotational basis so that each member country/region can actively participate in and contribute to the SCA

## **The Fifteenth Conference**

**May 15-17, 2015 Siem Reap, Cambodia**

Theme: Science and Technology for Culture

Organized

by: the Ministry of Education, Youth and Sport of Cambodia (MOEYS), the Institute of Technology of Cambodia (ITC), the Royal Academy of Cambodia (RAC), Science Council of Japan (SCJ)

Sponsored by: the Ministry of Culture and Fine-Arts of Cambodia, the Architectural Institute of Japan (AIJ)

The 15th SCA Conference was held between 15 and 17 May 2015, at Angkor Paradise Hotel in Siem Reap, Cambodia

On 15 and 16 May, SCA International Symposium "Science and Technology for Culture" was organized by Institute of Technology Cambodia (ITC), Ministry of Education, Youth and Sport of Cambodia, Ministry of Culture and Fine-Arts of Cambodia. The International Symposium was composed of 4 keynote lectures, parallel sessions and a panel discussion. It was attended by 174 participants from 16 countries/regions.

On 16 May, SCA Joint Project Workshops was held and four lectures on the topics related to Cambodia and the world were presented.

At SCA Management Board Meetings convened during the three-day Conference, applications for new SCA membership from Pakistan Academy of Sciences (PAS) and Indian National Science Academy were unanimously approved. The total number of member organizations expanded to thirty one.

### **Science Council of Asia (SCA) Statement on the Earthquake in Nepal**

The Science Council of Asia at its 15th Conference held at Siem Reap, Cambodia expressed its profound sadness at the unimaginable disaster caused by the massive earthquakes that occurred recently in the Kathmandu-Pokhara area of Nepal. It resolved to convey its condolences and sympathy to the Nepalese people for the colossal loss of life and infrastructure in their country.

We anxiously continue to monitor reports of the effects of earthquakes on Nepal and hope that these will soon subside with the minimum of adverse consequences. We are sure that the Nepalese government and the international community are involved in the recovery process and doing their best to alleviate the situation, a process which we realize is both challenging and enduring. We truly hope and pray that the people of Nepal, with utmost courage, solidarity and resilience, will recover resurge from their present hardships and achieve normality in the very near future.

We, the SCIENCE COUNCIL OF ASIA (SCA), resolves to work with Nepal, its academy of sciences and other scientific institutions in the country and Asia to utilize all that science has to offer to effectively respond to the present crisis and to any future large-scale natural disasters that continue to threaten the safety of our peoples and societies.

Siem Reap, 16 May 2015





## **Science Council of Asia (SCA) Declaration on Science and Technology for Culture**

On this date of May 16th 2015,

Culture provides the basis for understanding the environment one lives in, including relationships with others and the values one upholds. It is only through the retention of customs and traditions that uphold the values of non-discrimination and inclusive development that one can achieve progress truly appreciated by the people. The abundance and diversity of culture found in Asia underlines the importance of these issues to this particular region.

Modernization with developments in Information and Communication Technologies (ICT) include rapidly improving personal information communication devices popular with the youth and a global distribution system which quickly spreads these developments. These serve to promote the spread of universal common values in the daily lives of peoples rather than respect the differences and diversities of a particular region. There is therefore a need to preserve and, even at times, recover cultural elements which have been lost or destroyed over a period of time. Furthermore, there is a need to protect and promote the various peoples' historical and cultural heritage, both tangible and intangible cultural property, and to support the traditional artists and artisans who contribute to their preservation.

The SCA recognizes the centrality of indigenous cultural values and social structures, particularly the rich cultural diversity of Asia, while fostering the ethics of rights-based development, gender equality, inclusive development, and human well-being, in the application of science and technology especially in the spheres of food, shelter, health care, education, and environmental preservation.

It is in the interests of most Asian countries to mobilize their maximum efforts for the preservation and recovery of their cultural sites. They usually play an important and expanding role in the strategy of utilizing tourism to finance their economic development.

Scientific and technological programmes have been playing and could play a successful role in the preservation and recovery of culture and heritage sites in many nations and regions. Furthermore, encouraging the digitization of cultural heritages and promoting universal access through the global network of information in the public domain could increase awareness and contribute to the protection of cultural sites.

Science and technology institutions in developing countries and regions could be the driving force to promote the utilization of Science and Technology in preserving culture while exploiting S&T and culture for national development. Regional institutions could also provide a platform for reinforcing the voice of developing countries on issues related to science, technology and culture.

Cultural sites usually are settings within complex societies which have evolved in ancient times from simple settlements to comprehensive civilizations with well-developed components like housing, hospitals, markets and schools. A study of these sites can provide us with insights on that period, particularly on social practices and on indigenous science, technology, architecture and engineering.

In conserving and developing cultural heritage, it is important to take into account the existing culture and character of the local community when making changes in order to avoid conflicts and tensions.

Recognizing the importance of science and technology in this effort, and realizing the need to mobilise it for sustainable development without sacrificing the unique cultural diversity of this region, the participants of the 15th conference of the Science Council of Asia firmly declare that

1. Science and Technology development has to be complementary to cultural advancement. In order to achieve cultural advancement together with science and technology development, the people belonging to a particular society should be made aware of and recognize the importance of their unique culture and respect the function of culture in society when making decisions on strategies for national development.
2. All initiatives in this area should aim at achieving sustainable development without unnecessarily sacrificing the unique culture of the region. In preserving the culture and traditions including the indigenous technology and local wisdom of a thriving community, science and technology development should be in harmony with the local wisdom and technology.
3. Recognizing the study of traditional knowledge, in particular that of indigenous peoples of the region in relation to environmental protection and the management of natural resources, can help foster synergies between modern sciences and local knowledge.
4. Promotion and implementation of this win-win situation with respect to unique culture and science and technology development requires the strengthening of capacity of developing nations. This should ensure the availability of the appropriate human and material resources to enable inter-disciplinary collaboration between different academic fields. Sustainable development while maintaining the unique culture of the region requires the committed leadership of all stakeholders to be aware of the importance of respecting the culture of the region.
5. It is important to foster the development of networks of historical and cultural heritage sites to preserve culture and tradition in a sustainable manner, while expanding their contribution to regional economic development.
6. International and regional organizations are encouraged to initiate collaborative studies and provide assistance for capacity building to utilize science and technology in these areas. They also include techniques for the preservation of cultural sites and for undertaking research to understand the society that existed at that time.

Siem Reap, 16 May 2015

## **The Fourteenth Conference**

**June 17-19, 2014 Kuala Lumpur, Malaysia**

Theme: Future Earth: Research for global sustainability and a holistic understanding of sustainable development in Asia

Organized by: The Ministry of Science, Technology and Innovation (MOSTI)

Academy of Sciences Malaysia (ASM)

Institute for Environment and Development (LESTARI)

International Council for Science Regional Office for Asia and the Pacific(ICSU-ROAP)

The 14th SCA Conference was held between 17 and 19 June 2014, at Istana Hotel in Kuala Lumpur, Malaysia.

On 18 and 19 June, SCA International Symposium "Future Earth: Research for Global Sustainability and a Holistic Understanding of Sustainable Development in Asia" was organized by Academy of Sciences Malaysia (ASM), Ministry of Science, Technology and Innovation Malaysia (MOSTI), Institute for Environment and Development (LESTARI), and International Council for Science (ICSU) Regional Office for Asia and the Pacific. The International Symposium was composed of a series of keynote lectures, parallel symposia/sessions, poster sessions and a panel discussion. It was attended by more than 200 participants from about 20 countries.

Before the International Conference, SCA Joint Project Workshops was held on 17 June, and three ongoing research projects between Malaysia and Japan were presented with the cooperation of Singapore Office of Japan Science Technology Agency (JST) and JICA Malaysia Office.

At SCA General Assemblies and Management Board Meetings convened during the three-day Conference, statutes/by-laws were amended and new officers were elected. Furthermore, applications for new SCA membership from Academia Sinica and Myanmar Academy of Arts and Science were unanimously approved. The total number of member organizations expanded to twenty nine.



## Science Council of Asia (SCA) and Academy of Sciences Malaysia Declaration on Sustainable Development in Asia

We, delegates of the 14th Science Council of Asia (SCA) Board and Assembly, and participants of the International Conference on Future Earth and a Holistic Understanding of Sustainable development in Asia, held on June 18th and 19th 2014, resolve to work together towards a more integrated and holistic science that provides economic, social and environmental solutions towards sustainability in Asia.

Recalling the theme of the Conference Future Earth: Research for Global Sustainability and a Holistic Understanding of Sustainable Development in Asia, and recognizing the critical need for a more collaborative mode of research that integrates natural and social sciences, economics and humanities, the arts and engineering, in order to be able to fully understand sustainability and to promote its realization in Asia, the SCA declares that:

1. Science is inherently global and regional collaboration and cooperation are essential to contribute to building blocks for the development of beneficial and inclusive knowledge in an interconnected world;
2. Science must be used for the benefit of society and all nations in Asia have the responsibility to contribute to social innovation that will change current mindsets and behaviour and induce academia in Asia to build capacity within local communities that would benefit society in general;
3. The SCA will seek the support of key development assistance agencies to promote research and the exchange of information between scientific communities in Asia;
4. The SCA will promote integrative planning and transformative thinking to promote collaboration between scientific groups and organizations, from different disciplines in science, among scientists from different fields, and among scientists and the development and policy communities. This should be implemented within the context of Asian culture, values and philosophy in order to generate innovative solutions that take the Asian countries to the next level of achievement;
5. The scientific community should be encouraged to provide educational and capacity building opportunities of the younger generation of scientists in holistic systems thinking, where issues need to be addressed in their totality and the systems approach to project planning and implementation utilized as a means to achieve this target;
6. A community of industrial scientists needs to be nurtured to provide linkages between basic and fundamental sciences that, in the final analysis should drive innovation and industrial creativity amongst all stakeholders;
7. The SCA undertakes to play a key role in providing scientists in all fields in Asia with the platform for collaboration and promotion of scientific exchange and cooperation;
8. The SCA will endeavour to work together with other stakeholders to enhance capacity in science, technology and innovation (STI). STI capacity and capability must be strengthened not only in terms of personnel and expertise, but also in terms of the institutions, mandates, funding and linkages between the scientific, development, and policy communities and the general public;
9. In line with the ideals of Future Earth the SCA will seek to reinvigorate science so that it is ready and able to generate big new ideas and game changing strategies that will create wealth and jobs in Asia based on the principle of sustainability and equity;
10. The SCA will also encourage scientists to engage in multidisciplinary research that is solution-oriented, taking into account the real situation in a complex world, promoting the assembly and formation of consortia to

collaboratively conduct inter- and trans-disciplinary research;

11. All the SCA member countries are encouraged to play an active role in promoting cooperation between government, research organizations and the business sector. The SCA will enhance its efforts to promote the involvement of the private sector in research and research collaboration;
12. Asia accounts for nearly 70% of the human lives lost through natural disasters. Earthquakes, tsunamis, cyclones and floods are prominent among the natural disasters claiming human lives. Appropriate scientific and technological interventions have been demonstrated to make a significant difference. SCA will facilitate the identification and transfer of such interventions among Asian countries;
13. Urbanization is increasing rapidly in Asia and by 2030 almost 55% of population would reside in urban areas. SCA will promote the mainstreaming of Disaster Risk Reduction technology in urban development projects to insulate them from disasters;
14. Gas hydrates are a key potential source of energy and the Exclusive Economic Zones of several Asian countries contain large deposits. SCA will promote awareness of developments in this particular sector among Asian countries.
15. Low Temperature Thermal Desalination (LTTD) is a very successful inexpensive technique to obtain fresh water from the oceans, particularly for countries located between 20 degrees North and 20 degrees South latitudes which are geographically favorably located for this purpose. SCA will promote the use of LTTD among Asian countries;

In concluding the Joint Declaration, all member countries and organizations of SCA commit to actively promote SCA's declaration, mission, objectives, plans to their respective members and colleagues in various disciplines.

## **The Thirteenth Conference**

**May 7-9, 2013 Bangkok, Thailand**

Theme: Role of Science in Asia: Facing the Challenges of AEC 2015

Organized by: The Science Society of Thailand Under the Patronage of His Majesty the King (SST)

Thailand Academy of Science and Technology (TAST)

National Research University (NRU)

Science Council of Japan (SCJ)

The 13<sup>th</sup> SCA Conference was held between 7 and 9 May at Grand Centre Point Hotel & Residence-Terminal 21 and Queen Sirikit National Convention Center in Bangkok, Thailand. The conference was attended by thirteen member countries, namely, Bangladesh, Cambodia, China, Indonesia, Japan, Republic of Korea, Malaysia, Mongolia, Myanmar, The Philippines, Sri Lanka, Thailand and Vietnam.

On 7 and 8 May, Management Board Meetings were held and operations and future activities of SCA were discussed.

On 7 May, SCA Joint Project Workshop presented four ongoing research projects between Thailand and Japan.

Then, on 8 May, SCA International Symposium "Role of Science in Asia: Facing the Challenges of AEC 2015" was organized by The Science Society of Thailand Under the Patronage of His Majesty the King (SST). The Symposium began with the keynote speech by Mr. Bindu N. Lohani, Vice President, Asian Development Bank titled "Asia's Development Challenges: Role of Science and Knowledge". Then it was followed by a series of lectures, presentations, parallel sessions. In Panel Discussion titled "Future Earth", importance of sustainable

# SCA Conferences

development was actively discussed.

Approximately 130 participants from academia, government and public attended the Symposium.



*The SCA Declaration on Mobilizing Science toward Green Economy was adopted and released on May 9, 2013*

## Science Council of Asia (SCA) Declaration on Role of Science in Facing the Challenges of AEC2015

We, delegates and participants of the 13th Science Council of Asia Management Board Meeting and International Symposium which was held between May 7th and 8th, have affirmed with one voice, that it is time to work together towards the human, economic, social and environmental sustainability of our nations.

Recalling the theme of the Congress, “Role of Science in Asia: Facing the Challenges of AEC2015” and recognizing the critical role of science in addressing the challenges of a common economic community in the ASEAN countries by 2015;

Acknowledging that science is inherently global, and regional and that international collaboration and cooperation are essential to successful outcomes; and

Stressing that science must be used for the benefit of society and that all nations in Asia have the responsibility to contribute to and benefit from science;

This Conference outlined how this goal may be achieved through the involvement of the science community of Asia, and as steps towards this end, the SCA declares that it will:

1. Seek membership in international scientific organizations such as ICSU and ISSC so as to be able to participate more fully in activities and programmes of the scientific community at the international level.
2. Continue to recruit new members so that all countries in Asia become members actively involved in its activities and programmes. Our target is to establish the largest community of scientists from of Asian Region.

3. Cooperate with JICA/JST, ADB and other development assistance agencies in Asia and promote the exchange of information between the scientific community and Development assistance agencies.
4. Promote an integrated approach to the generation and development of knowledge and understanding needed to address the interconnected challenges of climate change, food, water and energy security, as well as the nexus of complex and wide-ranging obstacles to growth and development in Asia.
5. Support equitable access to data, information and research opportunities and encourage the sharing of facilities, expertise and know-how, and create opportunities critical to the further development of science in Asia.
6. Strive to ensure that sufficient resources are allocated by governments, business and industry in the region to enable the conduct of much needed scientific research and development activities towards the wellbeing, growth and development of Asia.
7. Promote more inclusive approaches to research that will enhance the role of science in the emerging “Green Economy” and in institutional reforms necessary for greening human security.
8. Encourage the development of the next generation of scientists through ensuring equitable access to training and educational opportunities that enhance the participation of young scientists in research, national and international meetings and exchanges, and international collaboration in training and capacity-development programmes.
9. Advance the development of science and technology to enhance cooperation and mutual understanding between nations and regions as a tool of international diplomacy and policy to promote peace, sustainable development, and prosperity in Asia.
10. Effectively recognize that research is especially needed in climate science, biodiversity and ecosystem services, marine science and oceanography, earth system science and integrated disaster risk management, population and urbanization, agriculture and access to water resources, sustainable new energy technologies, sustainable resource use, and human health and well-being.
11. Develop science education that integrates Science, Technology, Engineering, and Mathematics and apply interdisciplinary and holistic education spanning the Social Sciences and Natural Sciences.

Bangkok, 9 May, 2013

### **The Twelfth Conference**

**July 10-12, 2012 Bogor, Indonesia**

Theme: Mobilizing Science toward Green Economy

Organized by: Indonesian Institute of Sciences (LIPI)

Ministry of Education and Culture

Science Council of Japan (SCJ)

The 12th SCA Conference was held between 10 and 12 July, 2012 at Hotel Santika Bogor and IPB International Convention Center in Bogor, Indonesia. The conference was attended by eleven member countries including those of which obtained membership newly during the conference, namely, Cambodia, China, Indonesia, Japan, Korea, Malaysia, Myanmar, the Philippines, Sri Lanka, Thailand and Vietnam.

Between 11 and 12 July, SCA International Symposium "Mobilizing Science toward Green Economy" was organized by Indonesian Institute of Sciences (LIPI). The symposium was composed of a series of lectures, presentations, parallel sessions and panel discussions addressing the four sub-themes, namely, "Green Policy",

# SCA Conferences

"Food Safety/Security", "Green Technology" and "Eco Financing". It was attended by 232 participants from academia, government and public.

Upon commencement, Professor Lukman Hakim, President of the SCA and H.E. Mr. Benyamin Lakitan, Deputy Minister for Science and Technology Institutional, State Ministry of Research and Technology delivered opening addresses. Following the opening addresses, Professor Emil Salim, a Former Government Minister of the Republic of Indonesia, gave a keynote lecture titled "Developing Green Economy in a Culture of Greed". Dr. Mamoru Mohri, Astronaut/Chief Executive Director, National Museum of Emerging Science and Innovation of Japan, then presented a lecture titled "A New Perspective from Space". Also, Mr. Sonam Bumden, Director of Library and Research division at the Central Monastic Body of Bhutan, delivered a lecture titled "Finding Happiness in a Sea of Chaos: Perspectives from a Buddhist Monk". The keynote presentations stimulated the audience as they included not only the economic and technological dimensions of development, but also included the more abstract and spiritual dimension of human happiness.

The symposium offered the total of thirty three oral presentations and thirty seven poster presentations focusing on each sub-theme. The presentations had been selected from respondents to call for papers by the Scientific Committee members.

The results of the symposium were gathered into "SCA Declaration on Mobilizing Science toward Green Economy" which was elaborated and adapted at the Management Board on 12 July.

At the General Assembly convened on 10 July, applications for new SCA membership from Cambodia, Myanmar, Nepal and Sri Lanka were unanimously approved. The total number of member countries expanded to sixteen. Vietnam Academy of Science and Technology (VAST) became the third member organization from Vietnam, which made the total number of member organizations expand to twenty six.

Furthermore, SCA Joint Project Workshops, organized on 10 July, presented three ongoing research projects between Indonesia and Japan, namely "Production of Chemicals and Fuels from Lignocellulosic Biomass (Biorefineries)" by Associate Professor Chiaki Ogino, Kobe University of Japan and Professor Bambang Prasetya, Indonesian Institute of Sciences (LIPI), "Project for Development of Internationally Standardized Microbial Resource Center to Promote Life Science Research and Biotechnology" by Dr. Heddy Julistiono, Indonesian Institute of Sciences (LIPI) and "The Project for Wild Fire and Carbon Management in Peat – Forest in Indonesia" by Professor Mitsuru Osaki, Hokkaido University of Japan.

## **The Eleventh Conference**

**July 4 – 6, 2011 Ulaanbaatar, Mongolia**

Theme: Combating Land Degradation in Asia

Organized by: Mongolian Academy of Sciences (MAS)

Science Council of Japan (SCJ)

The conference was attended by eleven member countries, namely: Bangladesh (newly obtained the SCA membership during this SCA Conference), China, India, Indonesia, Japan, Republic of Korea, Malaysia, Mongolia, the Philippines, Thailand and Vietnam.



During the conference, SCA International Symposium “Combating Land Degradation in Asia” was organized by Mongolian Academy of Sciences (MAS). The symposium was composed of a series of lectures, presentations and discussions addressing the land degradation and desertification issues across the Asia from a wide variety of perspectives. It was attended by a large number of audiences from academia, government and public.

Upon commencement, a keynote speech was made by His Excellency Mr. Miyegombo Enkhbold, Deputy Prime Minister of Mongolia, about the land issues with focusing on desertification that Mongolia is now addressing while viewing the issues relating to the land problems which are to be solved with the help of scientific breakthrough.

Ichiro Kanazawa, Immediate-past President of Science Council of Japan, then delivered a special message with the gratitude for the generous support that Japan had received from many countries for those suffered from the Great East Japan Earthquake in March in 2011 followed by the report on the course and development of the Fukushima Nuclear Power Plant Accident.

The symposium was composed of a number of scientific presentations by experts under the relevant sub-themes including “Policy and Steps by the Mongolian Government to Combat Land Degradation and Desertification”, “Current Status and Future Strategies Relating to Desertification and Land Degradation/Land Cover in Asian Countries” “Information, Assessment and Mapping of Land Degradation and Desertification” and “Land Cover Change and Urban Land Planning”.

A presentation on “Science and Technology Research Partnership for Sustainable Development (SATREPS)” was also delivered by Cindy Yoshiko Shirata, Council Member of Science Council of Japan at Special Information Session.

Four SCA Special Sessions, “Open Data and Knowledge Environment for Innovative Research, Education and Society on Environment in Asia (ODKE)”, “Monitoring and Prediction for Early Warning against Water-Related Disasters in Asia-Towards Integrated Research”, “Pop Culture in Asia: The Landscape of Mongolia – the Formation of Its “Prairie Image” in East Asia” and “Developing E-Science in Asia”, were also organized at Mongolian –Japan Center for Human Resources Development.

Furthermore, a courtesy call by the SCA Management Board Members to Mr. Ochirbat Dagvadorj, Member of the State Great Hural (Parliament), Chair of Standing Committee on Social Policy, Education, Culture and Science was arranged.

### **The Tenth Conference**

#### **June 14-16, 2010 The Philippines**

Theme: Meeting the Health Challenges in the Asia Pacific Region: “Responding through an Integrated and Multidisciplinary Approach in Science and Technology”

Organized by: National Research Council of the Philippines (NRCP)  
Science Council of Japan (SCJ)

The conference was attended by nine member countries: China, India, Indonesia, Japan, Republic of Korea, Malaysia, Mongolia, Philippines and Thailand.

The conference was held in parallel with the four Cluster Sessions organized by NRCP. The sessions were composed of a series of presentations addressing the health issues from such variety of perspectives as Culture, Climate Change, Technology and Environment.

# SCA Conferences

Upon commencement of the conference, welcome remarks were delivered by Dr. Alvin B. Culaba, President of NRCP followed by the opening remarks of Dr. Jaime C. Montoya and messages delivered by Dr. Estrella F. Alabastro, Secretary, Department of Science and Technology (DOST) Philippines and Prof. Ichiro Kanazawa, President of Science Council of Japan (SCJ).

On 15 June, the Second New Framework Examination Committee Meeting (NFEC) was convened and chaired by Prof. Yoichi Muraoka, Secretary General/Treasurer of SCA.

Of the SCA Joint Projects, two (2) projects, “Sustainable Water Resources Management in Asia” and “Action Plans for Natural Disaster Mitigation” organized individual sessions on 15 June. SCA Special Sessions, namely “Pop Culture in Asia: Memories of the Past and the Present in the Films of Asia”, “The Opportunities and Challenges of Energy Investments in the Philippines” and “Today’s Realities Through the Lens of Social Sciences”, were organized on the same day.

The Progress Report of the SCA Joint Project “Open Data and Knowledge Environment for Innovative Research on Poverty Free and Ecosystem Protection in Asia (ODKE)” was presented by Prof. Liu Chuang, China Association for Science and Technology (CAST), China.

## The Ninth Conference

### June 17-19, 2009 Singapore

Theme: Grooming Scientific Talent in Asia

Organized by: Agency for Science, Technology and Research (A\*STAR)  
Science Council of Japan (SCJ)

The conference was attended by all eleven member countries: China, India, Indonesia, Japan, Republic of Korea, Malaysia, Mongolia, the Philippines, Singapore, Thailand and Vietnam.

Upon commencement of the conference, a keynote speech on the subject of “Grooming Scientific Talent in Asia” was presented by Mr. Lim Chuan Poh, Chairman of A\*STAR.

At the General Assembly I on 17 June, two progress reports of the SCA Joint Projects were presented; “Open Data and Knowledge Environment for Innovative Research on Poverty Free and Ecosystem Protection in Asia (ODKE)” by Prof. Liu Chuang, China Association for Science and Technology (CAST), China and “Sustainability Science for Sustainability Governance: A Study on science – governance symbioses” by Ms. Sarah Aziz Abdul Ghani Aziz, Institute of Environment and Development (LESTARI), Malaysia.

On 18 June, The First Meeting of New Framework Examination Committee (NFEC), which was derived from the approval of the First Strategic Plan of the Science Council of Asia in 2008, was convened and chaired by Prof. Hong Wanjin, Deputy Director of Institute of Molecular and Cell Biology (IMCB) of A\*STAR, Singapore.

Of the SCA Joint Projects, six projects, namely, “Water”, “Natural Disasters”, “Gender”, “Ocean Security in Asia”, “Honeybees” and “Space and Lithosphere Environment” held individual sessions on 18 June. The SCA Special Sessions, “Pop Culture in Asia: Families in the Films of Asia” and “Grooming Science and Technology Talent”, were held in parallel on the same day.

## **The Eighth Conference**

**May 28–30, 2008 Qingdao, China**

Theme: Sustainable Development on Marine Resources and Environment

Organized by: China Association for Science and Technology (CAST)

Qingdao Association for Science and Technology (QDAST)

Science Council of Japan (SCJ)

The conference was attended by ten SCA member countries: China, Indonesia, Japan, Republic of Korea, Malaysia, Mongolia, the Philippines, Singapore, Thailand and Viet Nam.

In the Opening Ceremony on May 28 which was held in cooperation with the International Forum on Marine Science and Technology and Economic Development (IFMSTED) 2008, Prof. Masahide Kaeriyama, Hokkaido University delivered a keynote speech.

At the General Assembly I on May 28, three new SCA Joint Projects were proposed and approved: "Open Data and Knowledge Environment for Innovative Research on Poverty Free and Ecosystem Protection in Asian (ODKE)" proposed by Prof. Liu Chuang (Chinese Academy of Sciences: CAS) and Dr. Pakorn Apaphant (Geo-Informatics and Space Technology Development Agency: GISTDA, Thailand), "Sustainable Water Resources Management in Asia" proposed by Prof. Shinichiro Ohgaki (SCJ) and "Action Plans for Natural Disaster Mitigation" proposed by Prof. Kenji Satake (SCJ).

Two Progress Reports of the SCA joint projects were presented: the first one is "Professional Training Course and Research on Sustainability Science" by Prof. Dr. Mazlin Bin Mokhtar and Dr. Ibrahim Komoo, Institute for Environment and Development (LESTARI), Malaysia, and the second one is "Space and Lithosphere Environment Changes in Indonesia" by Prof. Kiyofumi Yumoto, SCJ.

The Special lecture "Current Status of Korean Economy and Desirable Corporate Strategies" was delivered by Dr. Dong Ki Kim, National Academy of Sciences (NAS), ROK.

At the General Assembly on May 30, "First Strategic Plan Proposal of the Science Council of Asia (From the End of the 2008 Conference until the 2011 Conference)" was unanimously approved.

Among the SCA Joint Projects which are in progress, the five projects, namely, "Gender", "Water", "Natural Disasters", "Ocean Security in Asia" and "Honeybee" were held individually during the morning and afternoon of May 29. The Special Session: "Pop Culture in Asia – Comparison of Film Culture –" was also held on the same day.

## **The Seventh Conference**

**June 14–16, 2007 Okinawa, Japan**

Theme: Energy and Environment

Organized by: Science Council of Japan (SCJ)

\* The SCA/PSA Joint Symposium was operated by the Science Council of Asia (SCA), the Pacific Science Association (PSA) and the Japan Science and Technology Agency (JST) on 16 June, 2007.

# SCA Conferences

The conference was attended by nine member countries. As observers, representatives from five international, regional or national organizations participated in the conference. About 550 participants including the participants of the SCA/PSA Joint Symposium were attended the Conference.

At General Assembly I on June 14, three new SCA Joint Projects were proposed and approved: “Genomics-based Comparative Analyses of Gene Expression of Wild Asian Honeybees for Improving European Domestic Honeybees” proposed by Dr. Kiyoshi Kimura, “Space and Lithosphere Environment Changes in Indonesia” proposed by Prof. Kiyofumi Yumoto and “Institutional Design of Global Information Commons for Asia” proposed by Prof. Shuichi Iwata. Prof. Mazlin Bin Mokhtar from the Institute for Environment and Development (LESTARI), Malaysia, gave a presentation at General Assembly I on “Sustainability Science for Sustainability Governance: A Study on Science-Governance Symbioses,” a SCA Joint Project which is currently in progress.

After the deliberation including the discussion at the Informal Meetings, the 7th SCA Conference Joint Statements on “Energy and Environment” and “the Future of the SCA” were unanimously adopted.

The themes of the Parallel Session of SCA Joint Project Workshop held on June 15 are “Gender,” “Aquatic Environment,” “Natural Disasters” and “Ocean Security.” The summary of each session was reported at the General Assembly II on the same day.

At the SCA / PSA Joint Symposium on June 16, after the opening remarks by Prof. Ichiro Kanazawa, President of the SCA / SCJ and Dr. Nancy Lewis, Secretary-General of the PSA, the congratulatory address by Mr. Hirokazu Nakaima, Governor of Okinawa Prefecture, and the introduction of the message from Prime Minister Shinzo Abe, His Imperial Highness Prince Akishino delivered a special address. This was followed by two keynote speeches by Dr. Rajendra Pachauri, Chairman of the Intergovernmental Panel on Climate Change (IPCC), and by Prof. Leo Tan, President of the Singapore National Academy of Science.

The themes of Panel Discussion Sessions are “Energy and Environment,” “Education and Environment” and “Water Resources.” The students of Okinawa Prefectural Miyako Agriculture and Forestry High School made a presentation entitled “Protecting the Life-sustaining Groundwater of Miyako Island: The Development of an Environmentally Friendly Organic Fertilizer utilizing Phosphorus Accumulated in the Soil” in the session on “Water Resources.” The Symposium concluded with closing remarks by Prof. Ichiro Kanazawa, President of the SCA / SCJ.

## **The Sixth Conference**

**April 17–19, 2006 Delhi, India**

Theme: Institution and Capacity Building for Rural Development

The Role of Science for Sustainable Development

Organized by: Indian Council of Social Science Research (ICSSR)

Co-organized by: Science Council of Japan (SCJ)

## **The Fifth Conference**

**May 11–13, 2005 Hanoi, Vietnam**

Theme: “Bioscience and Biotechnology for Sustainable Development: Future of Asian Economy”

Organized by: Ministry of Science and Technology (MOST), Vietnam

Co-organized by: Science Council of Japan (SCJ)

Supported by: Ministry of Health, Vietnam (MOH), Vietnam Academy of Science and Technology, and National Council for Scientific and Technological Policy, Vietnam

### **The Fourth Conference**

**May 13–15, 2004 Seoul, Republic of Korea**

Theme: “Globalization of Asian Economy and Role of Sciences for Sustainable Development”

Organized by: The National Academy of Sciences (NAS), Republic of Korea

Co-organized by: Science Council of Japan (SCJ)

Supported by: Ministry of Education and Human Resources Development (MOE) and Ministry of Science and Technology (MOST), Republic of Korea

### **The Third Conference**

**May 13–15, 2003 Denpasar, Bali, Indonesia**

Theme: “Operationalising the Vision: Optimal Resource Utilization for Sustainable Development”

Organized by: Indonesian Institute of Sciences (LIPI)

Co-organized by: Directorate General for Higher Education, Ministry of National Education, Indonesia and Science Council of Japan (SCJ)

### **The Second Conference**

**May 13–15, 2002 Kuala Lumpur, Malaysia**

Theme: “Urgent Agenda for Asian Sustainability: Operationalising the Vision”

Organized by: Academy of Sciences Malaysia (ASM) and Science Council of Japan (SCJ)

In collaboration with: Ministry of Science, Technology and the Environment, Malaysia (MOSTE) and Institute for Environment and Development, Universiti Kebangsaan Malaysia (LESTARI)

### **The First Conference**

**May 9–11, 2001 Bangkok, Thailand**

Theme: “Urgent Agenda for Asian Sustainability through Science and Technology”

Hosted by: National Research Council of Thailand (NRCT) and Science Council of Japan (SCJ)

In cooperation with: Thai Academy of Science and Technology (TAST) and Science Society of Thailand (SST)

### **Future Conferences**

**The Conference in 2016**

**Sri Lanka**

**The Conference in 2017**

**The Philippines**

# SCA Joint Projects

At its first conference, the SCA launched SCA Joint Projects to foster networking among the scientists of member countries and research collaboration on sustainable development and improvement in the quality of life in Asia. The SCA Joint Projects are designed to pool Asia's scientific knowledge and offer scientists the advantage of project endorsement by SCA member countries/region.

At the first conference, the projects proposed by Malaysia and Thailand were designated SCA Joint Projects, and the two nations were assigned as leaders of their respective projects. At the fifth conference, three projects on gender, hydrology, and natural hazards were authorized as the SCA Joint Projects. At the seventh conference, three new SCA Joint Projects were proposed and authorized. At the eighth conference, three new SCA Joint Projects were proposed and authorized.

## Guidelines for SCA Joint Projects

Approved on May 13, 2004

### 1. Concept

SCA Joint Projects are research projects on scientific issues promoted by two or more researchers under the leadership of a researcher of member country. The objective of the projects should be i. to share experiences, ii. to promote collaboration, iii. to achieve common goals of SCA..

### 2. New proposal

- (1) Any person recommended by a member organization of SCA is eligible to propose a SCA Joint Project as an anchor.
- (2) The anchors of the proposed SCA Joint Project shall have an opportunity to present interim or final results of the project at the annual SCA Conference.

### 3. Collaboration

- (1) Any person who is interested in the proposed project may apply for collaboration to the anchor. The collaborators may not necessarily belong to member organizations.
- (2) When the proposed project gets an offer of collaboration, the anchor shall start the project with the collaborators except for cases of specific obstacles.
- (3) The member organization that recommended the anchor shall offer as much assistance as possible to him/her in order to promote the project.

### 4. Authorization

- (1) The proposed project may be authorized as the SCA Joint Project at the SCA Management Board Meeting when it is agreed that it meets the objectives of SCA.
- (2) SCA and its member organizations shall disseminate the interim and final results of the SCA Joint Projects to government, public, academic national organizations and industries as well as international academic organizations.

### 5. Note

SCA shall not give any financial assistance to any SCA Joint Project until necessary conditions are met including establishment of own financial resources by introduction of membership fee.

## Proposed Joint Projects

Title	Proposer (Affiliation)
Open Data and Knowledge Environment for Innovative Research on Poverty Free and Ecosystem Protection in Asian (ODKE)	Liu Chuang (CAST) Pakorn Apaphant (GISTDA, Thailand)
Sustainable Water Resources Management in Asia	Shinichiro Ohgaki (SCJ)
Action Plans for Natural Disaster Mitigation	Kenji Satake (SCJ)
A Comparative Study of the Research Conditions of Women Scientists and the Present States of Women's/ Gender Studies in Asian Countries Towards the Sustainable Development	Sjamsiah Achmad (LIPI) Hiroko Hara (SCJ)
Comparative Study on Gender Perspective in Science and Technology Policy	Sjamsiah Achmad (LIPI) Achie Sudiarti Luhulima (LIPI) Wati Hermawati (LIPI)
Management of Sustainable Aquatic Environment	Tetsuya Kusuda (SCJ) Tadashi Yamada (SCJ) Kazuo Nadaoka (SCJ) Naoyuki Funamizu (SCJ)
Coastal Ecosystems Response to Climate Change and Human Impact in the Asia-Pacific Region(CERCCHI Project)	Kazuo Nadaoka (SCJ)
International Cooperation for the Safety of Maritime Navigation in Asia	Tadao Kuribayashi (SCJ)
Sustainability Science for Sustainability Governance: A Study on science –governance symbioses	Ibrahim Komoo (LESTARI) Mohd. Nordin Hasan (ASM) Mazlin Bin Mokhtar (LESTARI)
Genomics-based Comparative Analyses of Gene Expression of Wild Asian Honeybees for Improving European Domestic Honeybees	Kiyoshi Kimura (National Institute of Livestock and Grassland Science)
Space and Lithosphere Environment Changes in Indonesia	Kiyofumi Yumoto (Kyushu University) Katsumi Hattori (Chiba University)
Institutional Design of Global Information Commons for Asia	Shuichi Iwata (The University of Tokyo) Krishan Lal (INSA), Yan Baoping (CAS)
Sustainability Science	Omar Abdul Rahman (ASM)

# Statutes and By-laws

## Statutes of the Science Council of Asia (SCA)

Approved on May 14, 2000

Revised on May 9, 2001

Revised on May 13, 2002

Revised on May 13, 2003

Revised on June 16, 2009

Revised on July 4, 2011

Revised on July 10, 2012

Revised on June 17, 2014

### Article 1: Establishment

The Science Council of Asia, hereinafter called the SCA or the Council, is an international and non-profit organization, constituted by the voluntary cooperation, initially, of the following Asian countries: China, India, Indonesia, Japan, Republic of Korea, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam.

### Article 2: Objectives

The objectives of the SCA are:

- a. to provide scientists in all fields, including cultural and social as well as natural sciences and technology, a collaborative platform for promoting scientific exchange and cooperation in Asia for the improvement of human society, and,
- b. to develop and promote a holistic vision by integrating the emerging advances in science and technology with Asian wisdom, values and heritage, focusing on sustainable development and improvement in quality of life.

### Article 3: Activities

In order to achieve the above objectives as well as to be beneficial to organizations involved, the SCA may:

- a. identify and examine issues of mutual interest in Asia for evolving proposals for action by related agencies and international bodies;
- b. obtain information needed for all activities of the SCA and disseminate it widely;
- c. cooperate with academic communities in Asia and international scientific and technological organizations and others devoted to the promotion of excellence and cooperation;
- d. provide expert opinion/informed advice on scientific issues;
- e. convene the annual Conference (the Conference), the biennial General Assembly (the Assembly), meetings of the Management Board (the Board), conferences, symposia and others.



#### **Article 4: Membership**

Membership of the SCA shall consist of eligible organizations in Asia.

- 4.1 An eligible organization is defined as one involved in cultural, social, and/or natural sciences and technology, as well as other disciplines relevant to the objectives of the SCA.
- 4.2 Among member organizations from each country, a National Member shall be designated as the representing organization. An organization effectively representing the range of scientific activities in a definite region may be accepted as a National<sup>1</sup> Member.
- 4.3 At least one organization in each country/region shall be preferably a government/public sector organization.
- 4.4 The SCA welcomes the participation of international or national organizations of cultural, social and/or natural sciences and technology who are interested in its activities as observers.
- 4.5 The membership of the National Member may cease after it is absent from two consecutive meetings of the Assembly without participating in any of the SCA activities for the said four years.
- 4.6 A National Member may be replaced with another member organization within the same country/region if applicable.
- 4.7 If the SCA has 5 National Members or less, it shall be disbanded.

foot note <sup>1</sup> The term "National" as used in Statutes and By-laws of SCA has no connotation other than denoting a Member admitted under the provisions of Article 4.2 of Statutes.

#### **Article 5: Annual Conference**

- 5.1 The Conference shall be held every year, for which one or more member organization(s) of each country/region shall be "the Host" in turn.
- 5.2 The Council (SCA) shall meet at the Conference, and governed by a Board and officers.

#### **Article 6: General Assembly**

- 6.1 The Assembly is the highest decision-making body of the Council, which shall be held once in two years at the Conference.
- 6.2 The Assembly shall be composed of designated representatives from each of the member organizations.
- 6.3 The Council at its biennial General Assembly shall:
  - a. elect from among the members of the Assembly, a President, a Vice-President, a President-Elect, and a Secretary General/Treasurer;

# Statutes and By-laws

- b. approve the amendments of the Statutes and By-laws;
- c. receive the annual report and statement of accounts from the Board;
- d. determine the Host for the Conference;
- e. make decision by consensus of the members present.

## **Article 7: Management Board Meetings**

- 7.1 The Management Board shall be held at least once a year.
- 7.2 The Board shall consist of one designated representative from each of the National Members, and of a Secretary General/Treasurer.
- 7.3 The Board shall:
  - a. constitute such committees as necessary to assist it in carrying out its functions;
  - b. formulate rules and regulations;
  - c. prepare the action plan and the budget of the SCA, including those for the aids/funds for expanding SCA activities (i.e. symposiums, seminars, and others) run by member initiatives;
  - d. review past activities, and prepare annual reports and receive statements of accounts from the Secretary General/Treasurers as stated in the By-laws Article 6.5, both of which are to be submitted to an Assembly;
  - e. decide on each application for membership;
  - f. approve any proposals/statements prior to dissemination;
  - g. make decision by consensus of the members present.
- 7.4 The members of the Board, except the officers, shall normally serve a term of two years, which starts at the end of an Assembly and ends at the following Assembly.

## **Article 8: Officers**

- 8.1 The officers consist of the following four people, a President, a Vice President, a Secretary General/Treasurer, and an Immediate-Past President or a President-Elect, stated in the following clause. The President shall be the Board member of the Host of a coming Assembly. The President-Elect shall be the Board member of the Host of the following Assembly. The Vice President shall be the Board member of the Host of the next Conference between two consecutive Assemblies.

- 8.2 The officers in principle shall serve a term of two years, which starts at the end of an Assembly in which they are elected and ends at the following Assembly. Despite preceding statement, Immediate Past President shall serve until the end of the next Conference after one's presidency term. President-Elect shall serve from the end of the previous Conference to the start of one's presidency term.

### **Article 9: Secretariat**

A Secretariat shall be established at Science Council of Japan (SCJ) which shall assist the work of the Council and the Board. The Secretariat shall be led by the Secretary General/Treasurer.

### **Article 10: Finance**

The necessary expenditures of the SCA shall be shared among SCJ, the Host and delegates as stated in the By-laws.

## **By-laws of the Science Council of Asia (SCA)**

Approved on May 14, 2000

Revised on May 9, 2001

Revised on May 13, 2002

Revised on May 13, 2003

Revised on May 13, 2004

Revised on June 16, 2009

Revised on July 4, 2011

Revised on July 10, 2012

Revised on June 17, 2014

### **Article 1: Membership**

- 1.1 An application for membership from eligible organization of a same country/region where the National<sup>1</sup> Member has already existed shall be nominated by one of existing member organizations for the consideration at the Management Board (the Board).
- 1.2 An application for membership from eligible organization for the first time from a country/region shall be nominated by a National Member for consideration at the Board. Prior to the consideration, each nomination must be seconded by another National Member.
- 1.3 A nominated member organization shall become a member of the SCA after gaining consensus approval of the members present in the Board.

foot note <sup>1</sup> The term "National" as used in Statutes and By-laws of SCA has no connotation other than denoting a Member admitted under the provisions of Article 4.2 of Statutes.

# Statutes and By-laws

## **Article 2: General Assembly**

When needed, the General Assembly (the Assembly) shall carry out its functions by correspondence including e-mail communications.

## **Article 3: Management Board**

- 3.1 A National Member shall nominate one representative to serve as a member of the Board.
- 3.2 A list of the members of the Board shall be presented to the Assembly before the commencement of their terms.
- 3.3 In the event that a representative of a National Member does not complete one's term as a member of the Board, the National Member shall provide a replacement within 60 days. The replacement shall serve the remainder of the predecessor's existing term.
- 3.4 In the event that a representative of a member of the Board is not able to attend a meeting of the Board, one may designate a substitute for attending the meeting.
- 3.5 A member organization may propose international or national organizations of cultural, social and/or natural sciences and technology, who are interested in the SCA's activities, to the officers for approval as observers in the Board, 2 months prior to the next Annual Conference (the Conference).

## **Article 4: Officers**

- 4.1 In the event that an officer does not complete one's term, the replacement provided must be approved by the Assembly within 60 days.
- 4.2 In the event that an officer does not complete one's term as officer but remains as a member of the Board, the Assembly shall elect another member of the Board to take one's position within 60 days. The replacement shall serve the remainder of the predecessor's existing term.
- 4.3 Until the replacement of an officer has been approved by the Assembly, the President may ask a member of the Board to serve as an acting officer. If the position of President remains unfilled, the Vice President, the President-Elect or the Immediate Past President, or the Secretary General/Treasurer, in that order, shall serve as Acting President. If the position of the President and other officer(s) remains unfilled, the Acting President may invite member(s) of the Board to serve as acting officer(s). If all four positions are vacant, the oldest member of the Board shall become Acting President and may invite other members of the Board to be other acting officers. The acting officers shall serve up to the time new officers are approved by the Assembly.

## **Article 5: Meeting Guidelines**

- 5.1 A meeting of the Assembly or the Board shall require the presence of at least half of the members. If less than half of the members attend a meeting, the chairperson's summary of the meeting shall be sent within 30 days to the absent members before any decision taken in the meeting shall be implemented.
- 5.2 Except in case of the Assembly and the Board meeting specified in the Statutes, all other business can be conducted by correspondence including e-mail communications. In all meetings, decision will be made by consensus of the members present, under a general principle that each National Member shall have one vote. In a vote by e-mail, a non-reply by a due date shall be considered to be in favor of the proposal.
- 5.3 An Observer described in Article 3.5 may observe the meetings of the Assembly, the Board, the Conference, and other SCA activities only if one is permitted by the officers. The right of an observer may be restricted depending on the character of one's organization.

## **Article 6: Finance**

- 6.1 The member organizations of the SCA shall begin paying membership fees in the year that it is decided to introduce membership fees into the finances of the SCA by the Assembly. The Board shall propose the membership fee and the necessary amendment of the Statutes and the By-laws to an Assembly two years in advance of the time the membership fee shall be introduced into the SCA.
- 6.2 For holding the meetings including an Assembly and/or a Board, the Host, in principle, shall bear the costs of conference facilities including communication costs, printing costs, and personnel costs, etc. as well as those for receptions. Except preceding statement, the costs of facilities for the Conference and other SCA activities, in principle, shall be borne by the Host and Science Council of Japan (SCJ). Airfares, accommodation costs and meal costs for the participants shall be borne by the respective organizations to which the participants belong.
- 6.3 The expenses for the maintenance and operations of the Secretariat shall be borne by SCJ.
- 6.4 Not only the Host of the Conference, but also every member organization may accept donations from international, governmental, public or private donors for activating SCA activities.
- 6.5 The Secretary General/Treasurer shall submit an annual financial report on the income and expenditures from the membership fees to the Board after the membership fee is approved by the Assembly.

# Statutes and By-laws

## **Article 7: Amendment of the Statutes and By-laws**

A National Member or the Board, but not a member organization, may submit changes to the Statutes and the By-laws to the President 3 months prior to the next Assembly. No changes may be made without the consensus approval of the Assembly.

**Science Council of Asia (SCA) Secretariat**

c/o Science Council of Japan (SCJ)

7-22-34 Roppongi, Minato-ku, Tokyo 106-8555, Japan

Tel: +81-3-3403-1949

Fax: +81-3-3403-1755

E-mail: [sca@cao.go.jp](mailto:sca@cao.go.jp)

URL: <http://www.scj.go.jp/en/sca/index.html>

August 2015

©Science Council of Asia



Printed on Recycled Paper