# Chairperson's Summary The Sixteenth Science Council of Asia (SCA) Conference $30^{\mathrm{th}}$ of May $2016-1^{\mathrm{st}}$ of June, 2016Colombo, Sri Lanka

### Introduction

The Sixteenth Science Council of Asia (SCA) Conference was held in Colombo, Sri Lanka, from the 30<sup>th</sup> of May to the 1<sup>st</sup> of June, 2016, over the theme of "Science for the People: Mobilizing Modern Technologies for Sustainable Development in Asia". The hosts of the Conference were the National Academy of Sciences of Sri Lanka (NASSL), National Science Foundation (NSF), and Science Council of Japan (SCJ) as the Secretariat of SCA.

The Conference was attended by around 20 countries/region with approximately 150 participants.

# Summary of the Conference

The Sixteenth SCA Conference included an International Symposium consisting of an Inauguration Ceremony, 4 Plenary Sessions (9 Keynote Speeches), Dialogue with Prime Minister of Sri Lanka, Four Parallel Session, each with 4 to 7 oral presentations, a poster session with 12 posters and a Closing Ceremony), SCA's Management Board Meeting I and II, General Assembly I and II, and Joint Program Workshops (JPWS).

# I. The 30th of May

# SCA Management Board Meeting (MBM) I

Inaugural remarks were made by Prof. Vijaya Kumar, President of SCA. Each delegate made self-introductions, and the MBM members were confirmed subsequently. Prof. Jai P. Mittal, a keynote speaker from Indian National Science Academy (INSA) participated in the meeting.

The agenda of the MBM I was adopted.

Prof. Hiroshi Yoshino, Secretary-General/Treasurer of SCA, explained the contents of the 16th Annual Report, which was then approved. As regard to financial matters, it was reported that there were no special pending issues, and the status of SCA's membership to ICSU and ISSC was explained as follows:

Thanks to sufficient numbers of support from current ICSU members, SCA became ICSU's Regional Scientific Associate early this year, and an annual due is outstanding. NASSL, the host of this year's SCA Conference, is expected to settle the amount. The annual due to ISSC for 2015 was paid by Cambodian ITC, and that due for 2016 was waived by ISSC.

It was explained that the host countries of SCA Conferences for 2017 (the Philippines) and 2018 (Bangladesh) were already decided. Korea expressed its renewed willingness to host 2022 Conference,

while China stood for 2020 Conference at the previous Conference.

Prof. V. Kumar explained the programme of the Sixteenth SCA Conference.

Based on a comment by IMU (International Mathematical Union) members, discussions were made on the expression of SCA Statutes, as to whether or not they included mathematics. It was noted the Statutes literally refer to the areas of science "in all fields", and thereby it covered mathematics. It was agreed that there would be no necessity to amend the Statutes.

# 2. SCA General Assembly (GA) I

Opening remarks were made by Prof. V. Kumar, the President of SCA. Prof. Kumar proposed to observe a minute of silence for late Dr. Batbold Enkhtuvshin, the former President of Mongolian Academy of Sciences (MAS) and expressed the Council's condolences. GA supported it unanimously and silence was observed.

The agenda of the GAI was adopted.

Prof. H. Yoshino, Secretary-General/Treasurer of SCA, explained the 15<sup>th</sup> and 16<sup>th</sup> Annual Reports, which were approved.

As regard to financial affairs, Prof. H. Yoshino, Secretary-General/Treasurer of SCA reported that there had been no special pending issues, and the issue of SCA's membership of ICSU and ISSC was explained.

The host countries of China for 2020 Conference and Korea for 2022 Conference were approved. The issue of host country of 2019 Conference was also looked into, and Myanmar agreed to consider the possibility.

Prof. H. Yoshino presented a Report on the Future Strategy submitted by Committee on Future Strategy of SCA, on which the intensive discussions were made.

The Dinner hosted by NSF on the 30<sup>th</sup> of May, and another hosted by SCJ on the 31<sup>st</sup> of May were announced.

Prof. V. Kumar explained the Sixteenth SCA Conference programmes.

Opinions were exchanged on the draft texts of the Sixteenth SCA Declaration. Free discussions followed, and then GAI was concluded.

### 3. JPWS

JPWS was commenced in the afternoon of the 30th of May, and Prof. V. Kumar, President of SCA and

Prof. H. Yoshino, Secretary-General/Treasurer of SCA moderated the session. The following presentations, in regard to Japan-Sri Lanka joint researches, were presented.

 "Promoting Collaborative Research Between Sari Lanka and Japan: Role of Sri Lanka-Japan Study Centre"

Lecturer: Missaka P. B. Wijayagunawardane, Director, Sri Lanka-Japan Study Centre (SLJSC), University of Peradeniya, Sri Lanka

- · "Development of a Novel Energy Storing Device Using a MoO2 Anode and Graphite Cathode"
- Lecturer: N. Gunawardhana, International Research Centre, University of Peradeniya, Sri Lanka
- · "Pollution Control and Environmental Restoration Techniques for Solid Waste Landfills in Sri Lanka" Lecturer: Ken Kawamoto, Graduate School of Science and Engineering, Saitama University, Japan
- "Sri Lanka-Japan Collaborative Research on Dye-sensitized Solar Cells"

Lecturer: G. R. A. Kumara, Department of Chemistry, Faculty of Science, University of Peradeniya, Sri Lanka

"Spatial Distribution of Fluoride in Well Water of Sri Lanka and its Fluoride Removal"
 Lecturer: Tomonori Kawakami, Department of Environmental Engineering, Toyama Prefectural
 University, Japan

Prof. Wijayagunawardane gave an overview of joint research between Sri Lanka and Japan and explained the role of Sri Lanka-Japan Study Centre. Prof. Kawamoto introduced various research undertakings in management of contaminated soil in Sri Lanka. Prof. Kawakami presented water purification methods in some areas of Sri Lanka, where well water contains fluorine, and causes health problems. Prof. Gunawardhana reported a newly created high-efficient fuel cell, and Prof. Kumara made a presentation on another result of joint research for solar cell.

### 4. Inauguration Ceremony

After a traditional opening ceremony, followed by speeches of Prof. V. Kumar, President of SCA, Dr. A. M. Mubarak, President of NASSL, Ms. Anusha. Amarasinghe, Director-General of NSF, and Prof. Takashi Onishi, President of SCJ, Hon. Lakshman Senewirathna, State Minister for Science, Technology and Research, made an opening address. A keynote speech by Prof. Y. Koike, Keio University, under the title of "Status of Photonics Polymers for High-Speed and High-Quality Communication Technologies" was presented. Prof. Koike stated that in many historic instances, innovation in material substances had accomplished a technological innovation which drastically changed the world, explaining that photonics polymers driven by nano-technologies is a key to realize communications in compatibility with high resolution display and real-time processing, thus leading to a comprehensive revolution in the means of communication today. Prof. Koike's presentation was highly appreciated by the audience.

Dinner hosted by NSF followed, accompanied by Sri Lankan traditional dance performances.

# II. The 31st of May

# 1. International Symposium

The parallel sessions (Future Earth, Information Technology, Culture and Archaeology, Nanotechnology) were conducted in the morning, after the following 3 keynote addresses.

- · Radiation Research and some 21st Century Challenges
- Jai P. Mittal, Indian National Science Academy, India,
- · Responding to novel emerging epidemics: The "One Health" approach
- Malik. Pieris, The University of Hong Kong, Hong Kong,
- Industrially-viable Nanotechnology Research Activities: An Overview of Solar Energy Conversion and Greener Hydrogen Energy Generation
- R. M. G. Rajapakse, University of Peradeniya, Sri Lanka

Prof. J. Mittal stressed a usefulness of radiation chemicals, citing actual examples of sterilizing sludge by way of high energy photons being exercised in the large cities. Prof. M. Pieris advocated an interdisciplinary, holistic and integrated approach called "One Health" to optimize the humans, animals and environment to meet a rapid expansion of new communicable diseases such as SARS, influenza, ebola fever, etc. Prof. R. Rajapakase introduced an automotive development research using clean natural energy exploiting nano-technology carried out in Sri Lanka.

The following 2 keynote speeches were addressed in the afternoon.

 Mechanistic insights into role of DNA polymerase IV in replication and evolution illuminate a novel strategy to combat multidrug resistance

Deepak T. Nair.

- · Regional Centre for Biotechnology, India, Climate Change and Natural Disasters.
- W. L. Sumathipala, Open University of Sri Lanka, Sri Lanka

Prof. D. Nair introduced an effort which might shed a light to a new strategy through functional insights on a role of DNA polymerase IV duplication to meet increasingly resistant microbes that were critical to human health of a global scale. Prof. Sumathipala reported on "Blue Green Era", which employed a traditional indigenous Sri Lankan knowledge to cope with world environmental issues.

Thereafter Hon. Ranil Wickremasinghe, Prime Minister and Hon. Susil Premajayantha, Minister for Science, Technology and Research participated in the meeting, and "SCA Dialogue with Hon. Ranil Wickremasinghe, Prime Minister" was convened.

Prime Minister Wickremasinghe put forward a formulation of the Ten-Year Plan, which was designed to an advancement of Sri Lanka's scientific and technological development, mentioning that the Sri Lanka's development laid in the areas of technology and innovation, and establishment of cooperative relationship with China, Korea and Japan.

Afterwards, the parallel sessions (Climate and Climate Change, Environment, Health, Biotechnology) were followed.

### 2. Management Board Meeting $\Pi$

Opening remarks were made by Prof. V. Kumar, President of SCA, and the agenda was adopted.

Following the previous discussions at MBM I and GAI, Prof. H. Yoshino, Secretary-General/Treasurer, proposed that Report on Future Strategy of Science Council of Asia, which was submitted by Committee on Future Strategy of SCA, be upgraded as an SCA report, which was then agreed on.

Discussions were made on the draft texts of the Sixteenth SCA Conference Declaration, and the final texts was agreed upon. Free discussions followed briefly.

# 3. Dinner hosted by SCJ

Dinner was hosted by SCJ.

### III. The 1st of June

# 1. International Symposium

The following 2 keynote speeches were addressed in the morning session.

- · Gender Gap in IT Entrepreneurship: An Experiential Comparison of Silicon Valley and Sri Lanka, Shahani Markus, Emojot Inc., Sri Lanka
- Nanotechnology in Agriculture: Nano-composites as a Platform for Enhanced Plant Uptake of Nitrogen,

Gehan A. J. Amaratunga, SLINTEC, Sri Lanka, University of Cambridge, UK

Prof. S. Markus discussed ways on reducing means of gender gaps based on an empirical analysis of entrepreneurships in Silicon Valley and Sri Lanka in the IT industry. Prof. G. Amaratunga introduced a use of nano-level composite to apply into the agriculture sector which employed urea coated hydroxyapatite nano-particles to mitigate eutrophication.

The poster session followed, and the another parallel session (Sri Lanka Academy of Young Scientists, Social Aspects, Natural Products/Food Technology, Urban Planning) were conducted.

In the afternoon, the following keynote speech and the parallel session (Gender, Energy, Technology Transfer, Science Communication) were presented.

· Urban resource and energy management for sustainable society,

K. Hanaki, University of Tokyo, Japan

Prof. K. Hanaki introduced a measure "Compact City", exercised in numerous countries as a source of

achieving sustainable society in urban areas and as a source of energy.

Hereafter closing ceremony was held, in which Prof. V. Kumar, President of SCA, made a wrap-up presentation. Prof. H. Yoshino, Secretary-General/Treasurer of SCA, presented the text of Declaration of the Sixteenth SCA Conference, followed by a presentation and closing remarks by Prof. E. Gomez, President of NRCP, the next host of SCA Conference.

Prof. V. Kumar in his wrap-up remark summarized that a wide range of discussions focused on an application of the latest scientific technology for the people took place during the Conference and expressed the appreciation of the Organizing Committee for the active contributions by the participants.

### 2. General Assembly (GA) $\Pi$

Opening remarks were made by Prof. V. Kumar, President of SCA, and the agenda was adopted.

Following the proposal of Prof. H. Yoshino, Secretary-General/Treasurer of SCA, "Future Strategic Plan" of SCA was approved, and it was decided to publish it later on.

Prof. H. Yoshino, Secretary-General/Treasurer of SCA, presented the text of Declaration of the Sixteenth SCA Conference.

Prof. E. D. Gomez, President of NRCP of the Philippines, briefed the GA about the Seventeenth SCA Conference to be held in the Philippines, and Prof. Z. N. Tahmida Begum, BAS Fellow, about the preparations for the Eighteenth SCA Conference in Bangladesh.

New Management Board Members of SCA were introduced as follows:

- Prof. Aminul Islam, President, Bangladesh Academy of Sciences (BAS), President of SCA
- Prof. Edgardo D. Gomez, President, National Research Council of Philippines (NRCP), Vice-President of SCA
- · Prof. Vijaya Kumar, Immediate-Past President, NASSL, Immediate-Past President of SCA

Term of office of Prof. H. Yoshino as Secretary-General/Treasurer was renewed for a further two years.

SCA Flag was handed over from Sri Lanka to the next host country, the Philippines, represented by Prof. Gomez, President of NRCP.

Closing remarks were made by Prof. V. Kumar, President of SCA, and GA was concluded.

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