**Second Circular** 



# Science for Sustainability, Resilience, and Human Well-being

October 19-21, 2023 Seoul, Korea

Science Council of Asia (SCA) National Academy of Sciences, Republic of Korea Korean Academy of Science and Technology

Climate Change Center, Republic of Korea Future Earth Asia Regional Committee

Ministry of Education Ministry of Science and ICT











We are currently facing a challenging era characterized by the rapid evolution of sciences and technologies, climate change, the COVID-19 pandemic, energy shortage, and the reorganization of the global supply chain. Climate change has long been a critical threat to humanity, prompting many countries and regions to actively respond to it through global collaboration.

Over the past three years, humanity has grappled with the devastating impact of COVID-19, which rapidly spread and disrupted countless lives across the globe, leading to widespread economic recessions. This situation calls for a reassessment of our perspectives and behavior in various aspects, including academic research, education, and social lives, to effectively address the impacts of COVID-19 and climate change, with a particular focus on sustainable and resilient recovery. It is crucial to recognize that these challenges, including energy shortages and an unstable global supply chain, are interconnected with human survival and sustainable development, requiring multidisciplinary and cross-sectoral solutions.

The 2030 Agenda (SDGs) for sustainable development calls for the support of all United Nations Member States. The Science Council of Asia (SCA) has been actively promoting cooperation in scientific research to tackle diverse and urgent sustainability issues in Asian countries, as well as worldwide. The 22nd Science Council of Asia Conference will concentrate on the development and implementation of "Science for Sustainability, Resilience, and Human Well-Being" to advance sustainable societal development in Asia and the world.

The Science Council of Asia (SCA) is an international scientific organization founded in 2000 by Asian science academies and other national scientific organizations. Based in Asia, the SCA aims to provide scientists with a collaborative platform in cultural and social fields as well as natural sciences and technology. The SCA's overarching goal is to develop and promote a holistic vision focusing on sustainable development and improvement in quality of life. At present, SCA is comprised of 18 countries and regions, and 31 academic organizations in Asia. The SCA Conference has been held annually since 2001. The 20th and 21st Science Council of Asia Conferences were held in China (hybrid mode) in 2021 and in India (online mode) in 2022 respectively.

The National Academy of Sciences, Republic of Korea (NAS) was inaugurated on July 17, 1954 under the provision of the Culture Protection Act, which was enacted in 1952. The NAS is an academic organization that represents the birthplace of academic development in the Republic of Korea and functions as the Hall of Fame for Korean scholars, both nominally and practically. NAS members are actively engaged in academic research activities across all disciplines with the support of the government. Members are renowned scholars who have made remarkable contributions to the development of the sciences, received nominations from academic organizations in their respective fields, and have been elected via a rigorous and fair screening process.

The Korean Academy of Sciences and Technology (KAST) is an authoritative academic organization comprised of Korea's leading scholars in science and technology. It was established as a purely private organization in 1994 to lay a foundation for the promotion of Korea's science and technology community. KAST supports policy research and advisory activities of scholars in science and technology for the development of basic science in Korea and the creation of a healthy R&D eco-system. It also provides science education and organizes cultural activities for the purpose of talent-fostering. In addition, through exchanges and cooperation with overseas academies, KAST plays a pivotal role in the non-governmental diplomacy of science and technology, through exchange and cooperation with international organizations, exerts efforts for science and technology to contribute to the advancement of humanity.







- Date : October 19-21, 2023
- Venue : Convention Center, Hoam Faculty House (www.hoam.ac.kr)

SNU Hoam Faculty House 1, Gwanak-ro, Gwanak-gu, Seoul, Korea (08826)

#### **■** Chairs

- LEE Jang Moo, President of Science Council of Asia
  President of National Academy of Sciences, Republic of Korea
- YOO Ook Joon, President of Korean Academy of Science and Technology

#### **■** General Secretaries

- PARK Seung Woo, Chairman of Local Organizing Committee, NAS
- LEE Changhee, Chairman of Local Organizing Committee, KAST
- SHIBUSAWA Sakae, Secretary General/Treasurer, SCA

#### **■** Main Topics

- 1. Advances in Science and Technology for Sustainable Development
- 2. Biotechnology for Human Well-Being
- 3. Humanities and Social Sciences for Better Living Society
- 4. Emerging Technologies and Policies toward Carbon Neutrality
- 5. Convergence of Knowledge and Capacity Building in COVID-19 Pandemic
- 6. Mega-Data and AI Technologies for Human Well-Being
- 7. Resilient Recovery from Climate Change
- 8. Education in the Digital Transformation Era

#### Main Topics will have shortened titles, which are follows:

1. Science and Technology 5. COVID-19

2. Biotechnology 6. Data & Al

3. Humanities and Social Sciences 7. Climate Change

4. Carbon Neutrality 8. Education







## **Parallel Session Program at a Glance**

Date	Time	Room A	Room B	Room C	Room D	
October 19 (Thu)	13:00~15:00	S1. Science & Technology (I)	S2. Biotechnology	S3. Humanities & Social Sciences (I)	S4. Carbon Neutrality	
	Break / Poster Session					
	15:30~17:30	S5. COVID-19	SCA Management Board Meeting	S7. Climate Change	S8. Education	
October 20 (Fri)	13:00~15:00	S1. Science & Technology (II)	S2&6 Biotechnology & Al	S3. Humanities & Social Sciences (II)	SP1. Climate Change Center	
	Break / Poster Session					
	15:30~17:30	S1. Science & Technology (III)	S6. Data & Al	S3. Humanities& Social Sciences (III)	SP2. Future Earth Asia	

<sup>\*</sup> Allocation of Oral Presentation will be announced to the presenters individually.

# **Important Dates**

February 15 Registrations Open

March 1 Call for Abstracts Opens

May 31 Abstract Submissions Close

**June 30** Proposal Acceptance / Rejection Notifications

July 31 Registrations Close

August 31 Posters Submissions Deadline

**September 15** Presentation Materials (PPT) Submissions Deadline

October 19-20 22nd SCA General Assembly and Conference







<sup>\*</sup> Poster Presentations will be displayed at the venue.

# The 22<sup>nd</sup> SCA Conference Program (tentative)

Date	Time	Program	Venue	
	9:30-10:00	Opening Ceremony		
	10:10-11:00	Plenary Speech	Main Hall	
	11:00-12:00	Keynote Speech 1,2		
	12:00-13:00	Break (Lunch)	Restaurant	
	13:00-15:00	S1. Science and Technology (I)	Room A	
		S2. Biotechnology	Room B	
19 October		S3. Humanities and Social Sciences (I)	Room C	
(Thursday)		S4. Carbon Neutrality (I)	Room D	
	15:00-15:30	Break / Poster Session	Lobby	
	15:30-17:30	S5. Covid-19	Room A	
		S7. Climate Change	Room C	
		S8. Education	Room D	
	16:30-17:30	SCA Management Board Meeting	Cherry	
	18:00-19:30	Reception (invitation only)	Main Hall	
	9:30-11:30	Keynote Speech 1, 2, 3, 4	Main Hall	
	11:30-13:00	Break (Lunch)	Restaurant	
	13:00-15:00	S1. Science and Technology (II)	Room A	
		S2&6. Biotechnology and AI	Room B	
		S3. Humanities and Social Sciences (II)	Room C	
		SP1. Climate Change Center Korea	Room D	
20 October	15:00-15:30	Break / Poster Session	Lobby	
(Friday)	15:30-17:30	S1. Science and Technology (III)	Room A	
		S6. AI and Data	Room B	
		S3. Humanities and Social Sciences (III)	Room C	
		SP2. Future Earth	Room D	
	17:00-18:00	SCA General Assembly	- Main Hall	
	18:00-18:30	Closing Ceremony	Iviani Han	
	18:30-20:00	Banquet (invitation only)	Main Hall	
21 October (Saturday)	10:00-14:00	Excursion (international participants only)		





**BAN Ki-moon,** 8th UN Secretary General (2007-2016) Deputy Chairman of Elders (a group of global leaders) President and Chair, Ban Ki-moon Foundation for a Better Future

# **Keynote Speakers and the Speech Titles**

#### Prof. CHOWDHURY Abul Kalam Azad

President, the Bangladesh Academy of Sciences Former President, Pharmaceutical Society of Bangladesh

• "Advances in science, technology, and innovation, and the sustainability of development"

#### Prof. XUE Qi-Kun

President, the Southern University of Science and Technology, China Member, the Chinese Academy of Sciences

• "China's Initiatives in Science and Technology Towards Carbon Neutrality"

#### Prof. KIM Kyong Dong

Emeritus Professor, Seoul National University, Korea Member, the National Academy of Sciences, Korea

• "Quo Vadis Science, Technology, and Society? - Light From the East"

#### Prof. BRODJONEGORO Satryo Soemantri

Former President, the Indonesian Academy of Sciences Emeritus Professor in Mechanical Engineering at the Bandung Institute of Technology (ITB), Indonesia

• "Guaranee that People are at the Center"

#### Prof. KITAJIMA Kaoru

Professor, Kyoto University, Japan Council Member, Science Council of Japan

• "Tropical forests: key for climate mitigation, adaptation and sustainability of biological and cultural diversity"

#### Dr. YOO Youngsook

14th Minister, Environment, Korea (2011-2013) Chairperson, the Climate Change Center

• "Science based sustainable low carbon resilient society"

Organized by







#### (1) Advances in Science and Technology for Sustainable Development

- Part 1: October 19 (Thu), 13:00~15:00 / Room A Chair: Prof. Masilamani Palanisamy, Bharathidasan University
- Part 2: October 20 (Fri), 13:00~15:00 / Room A Chair: Dr. Lourdes J. Cruz, Future Earth Philippines
- Part 3: October 20 (Fri), 15:30~17:30 / Room A Chair: Prof. Kim Hazel V. Arafiles, University of Santo Tomas

#### (2) Biotechnology for Human Well-Being

• Part 1: October 19 (Thu), 13:00~15:00 / Room B Chair: Dr. Mubarak Ahmad Khan, Bangladesh Jute Mills Corporations

#### (3) Humanities and Social Sciences for Better Living Society

- Part 1: October 19 (Thu), 13:00~15:00 / Room C
  Chair: President Nadira Karunaweera, National Academy of Sciences of Sri Lanka
- Part 2: October 20 (Fri), 13:00~15:00 / Room C Chair: Dr. Smriti Basnett, Future Earth South Asia Global Hub
- Part 3: October 20 (Fri), 15:30~17:30 / Room C
  Chair: Prof. YOO Jang-Hee, National Academy of Sciences, Republic of Korea

### (4) Emerging Technologies and Policies toward Carbon Neutrality

October 19 (Thu), 13:00~15:00 / Room D
 Chair: Prof. YOSHIMURA Shinobu, The University of Tokyo

#### (5) Convergence of Knowledge and Capacity Building for COVID-19 Pandemic

• October 19 (Thu), 15:30~17:30 / Room A Chair: Prof. Shiela B. Navasca, University of Santo Tomas

#### (6) Mega-data and AI Technologies for Human Well-Being

October 20 (Fri), 15:30~17:30 / Room B
 Chair: Prof. IWASAKI Wataru, University of Tokyo

#### (2&6) Biotechnology and AI Technologies for Human Well-Being

• October 20 (Fri), 13:00~15:00 / Room B Chair: Prof. KIM Mihyun, Gachon University

#### (7) Resilient Recovery from Climate Change

October 19 (Thu), 15:30~17:30 / Room C
 Chair: Dr. Seepana Prakasam, Indian Council of Social Science Research

#### (8) Education in Digital Transformation Era

 October 19 (Thu), 15:30~17:30 / Room D Chair: Prof. HARA Yoshinori, Kyoto University

#### (Special Session 1) by Climate Change Center

October 20 (Fri), 13:00~15:00 / Room D
 Chair: Director KIM Sohee, Climate Change Center

#### (Special Session 2) by Future Earth

• October 20 (Fri), 15:30~17:30 / Room D Chair: Prof. KIM Joon, Future Earth Korea









All 2023 SCA meetings will be held in person at Hoam Faculty House (Seoul National University). The attendees can participate in the Conference on-site.

### Language

English is the official language of the conference. English is to be used for all the printed materials, presentations and discussions.

### **Expenses**

- · Registration is free.
- Travel grants are NOT available for the conference.
- Participants have to cover their own travel expenses (accommodation, flight, ground transfers, etc.)

#### Hotels Near the Venue

- · Hoam Faculty House (www.hoam.ac.kr) Tel: +82-1688-7745
  - Address: Seoul National University, Gwanakro 1, Gwanak-gu, Seoul, Korea
  - Room Type: Standard (104,500 KRW), Deluxe (148,500 KRW), Suite (220,000 275,000 KRW)
- SR Hotel Sadang (http://en.hotel-sr.com) Tel: +82-2-588-2000
  - Address: 15, Dongjak-daero 1-gil, Dongjak-gu, Seoul, Korea (07025)
  - Room Type: Superior Double (98,000 KRW), Deluxe Double (105,000 KRW)
  - Distance from Venue: 2.6 Km (10-minute drive)
- Shilla Stay Guro (www.shillastay.com/guro/index.do) Tel: +82-2-2230-0700
  - Address: 596, Shieung-daero, Dongjak-gu, Seoul, Korea (07074)
  - Room Type: Standard (126,850 KRW), Premier Standard (147,490 KRW)
  - Distance from Venue: 6.7 Km (20~30-minute drive)
- · Lotte City Hotel Guro (www.lottehotel.com/guro-city/en.html) Tel: +82-2-771-1004
  - Address: 300, Digital-ro, Guro-gu, Seoul, Korea (08379)
  - Room Type: Standard (160,000 KRW), Standard Family (190,000 KRW)
  - Distance from Venue: 7.6 Km (25~35-minute drive)
- Trangblue Hotel (http://trangbluehoteljalib.site) Tel: +82-2-889-8000
  - Address: 52, Sillimdong 7-gil, Gwanak-gu, Seoul, Republic of Korea
  - Room Type: Standard (60,000 KRW~)
  - Distance from Venue: 4.4 Km (15~20-minute drive)
- · Benikea Hotel Noblesse (Tel: +82-2-558-1202)
  - Address: 6-13, Teheran-ro 25-gil, Gangnam-gu, Seoul, Republic of Korea
  - Room Type: Deluxe (80,000 KRW~)
  - Distance from Venue: 11 Km (30~35-minute drive)









You may search and locate the appropriate visa required for entry to Korea at the following website: https://www.visa.go.kr/main/openMain.do

Visa applications are the sole responsibility of participants. Please note that the validity of a short stay visa (C3-1) is 90 days. For any specific inquiries regarding your visa, please reach out to the Korean Embassy or the nearest Consulate in your region.

The invitation letter for visa support will be issued upon registration confirmation by the participants. Please be advised that the hosts cannot provide a 'Guarantee Letter'. We recommend preparing your visa documents in collaboration with your affiliated organizations.

#### **Excursion**

The detailed schedule for Excursion on October 21 will be announced at a later time. Please note that the tentative timing for the tour will be from 10:00 to 14:00.

## **Homepage**

#### http://sca2023.kr

The homepage will be regularly updated with detailed information. Visitors can find the latest directions from the airport to the venue, and the 2023 SCA Secretariat will continuously provide updates on the event details.

# **Inquiries**

The 22nd SCA Conference Organizing Committee

Email: sca2023@kast.or.kr





