The 21st Science Council of Asia (SCA) Conference Declaration / SCA Future Strategic Plan 2023 Executive Summary

Science Council of Asia (SCA) issued the Future Strategic Plan in 2016. The world is changing rapidly with new emerging sciences/technologies, the global issues of climate change, and the COVID-19 pandemic. It is, therefore, the SCA aims to rebuild a strategic plan at this point where the emerging advances in science and technology are integrated. The term "science" implies here inclusive perspective of social, natural and biological sciences. Revising the SCA Future Strategic Plan 2016, SCA Officers have drafted the Table of Contents and Executive Summary for the consideration among SCA member organizations at the Management Board Meeting during the 21st SCA Conference.

1. Role of SCA

SCA is a non-profit organization established in 2000 and aims at enhancing scientific cooperation, advancing science and driving sustainable progress in Asia. SCA is also providing an inclusive platform for promoting scientific exchange among scientists in all academic fields in Asia. As of March 2022, SCA consists of 31 member organizations from 18 countries and regions, i.e. Bangladesh, Cambodia, People's Republic of China, Chinese Taipei, India, Indonesia, Japan, Republic of Korea, Malaysia, Mongolia, Myanmar, Nepal, Pakistan, the Philippines, Singapore, Sri Lanka, Thailand and Viet Nam. The SCA Secretariat is located in Japan. SCA does not collect membership fees, which makes SCA stand out in the international academic organization community.

SCA's main and significant activity is to organize an annual international conference, with presentations of research papers and workshops, focusing especially on bilateral and multilateral research collaborations, and providing a unique networking opportunity not limited to academics. Twenty conferences have been successfully held since the first annual conference held in Bangkok, Thailand in 2001. The latest one was held in Guangzhou, China in 2021. One of its distinctive features is that host countries for the SCA Conferences are rotated among member countries. That provides host organizations with opportunities to obtain and deal with the latest, cutting-edge information on scientific development and improve its competence in scientific advice for policy. Since the 13th SCA Conference in 2013, SCA has issued a conference declaration related to imminent scientific issues in Asia and various global challenges that Asia take part with more concern in the global discussion toward the solution.

Furthermore, SCA has built closer ties with other international organizations and networks such as International Science Council (ISC) and Future Earth. In today's complex society, SCA is expected to play a crucial role in scientific progress in Asia and the world, expediting cooperation with other international organizations. SCA is fully aware of its importance to enhance the voice of academia in Asia to contribute effectively and strategically through listening to the global voice. The member organizations believe that SCA functions as a strong platform, not to merely consolidate but carefully represent the diversity of the academic voice of Asia as one.

2. Challenges and Opportunities

(1) Global Sustainability: Climate Change, Natural Disaster and Biodiversity

With outmost effort we are trying to achieve Sustainable Development Goals (SDGs) articulated by the United Nations 2030 Agenda. Issues such as climate change, natural disaster, and biodiversity, in particular, are calling for our immediate attention and the imperativeness of the issues is well shared among the SCA community to encourage the best practices.

COVID-19 has had multi-layered/faceted economic, social and cultural effects. In a process of recovery from the impact of COVID-19, pious efforts would be made to re-set humanity's relationships with the planet in ways that recover a self-sustaining environment and which will require engagement from the whole spectrum of the sciences.

(2) Converging Science and Technology in Digital Transformation

The convergence of science and technology has become eminent in tackling complex problems of climate change and COVID-19. Digital transformation (DX) has also a great potential for better life and society, especially in "untact" era. However, they can also multiply already existing problems, such as inequalities, power struggle, erosion of civil rights, and governance capacities. The underlying technologies of DX, such as Artificial Intelligence (AI), Internet of Things (IoT), and new materials, also have the risk of creating new disparities and being used for purpose other than their intended purpose. The tow yearlong negative impact to COVID-19 on people seemingly brought us an opportunity to further advance DX, and consider how to develop DX for the benefit of all people.

(3) Science in Policy and Public Discourse

The wisdom of science is essential for persuasive and effective policy making. Since COVID-19 was an unknown entity, many people have been confused and influenced by informational uncertainty. Although trust in business and media discourse have declined during the pandemic, COVID-19 has reminded us of the importance of advocacy for scientific knowledge as the reliable, trustworthy contributor to making science-based policies.

(4) Changing Practice in Science and Scientific System

Science has a function of providing global public good, which means its benefit should be enjoyed by people all over the world. In this regard, the concept of open science and actions thereof are on the increase. One of the crucial barriers to promote open science is that the uneven distribution of knowledge and information can be increased between those who can access the digital infrastructure and those who cannot.

(5) Freedom and Responsibility in Science

An ongoing social transformation in many societies creates and highlights a diversity of values in manners that has never existed before. Acknowledging and leveraging the diversity of values is important in science as they are in wider society. We need to redefine the responsibilities of science with considerations of equity, diversity and inclusivity in science as well as in actions that promote and safeguard scientific freedom fairly and responsible conduct.

3. Goals and Targets

(1) Global Sustainability

To realize sustainable development and achieve SDGs in many regions within ten years is a big challenge. Asia in particular is facing with multiple issues for sustainable developments. Despite the continuous economic development and focus, it is estimated there are still about 200 million people are extremely poor in Asia in 2017¹. There are regions in Asia that are suffering from consequences of climate change, severe environmental pollution and huge economic and social inequalities.

To tackle these complicated issues, efforts should be made to break barriers between different fields and disciplines. A cross-field, multi-disciplinary, integrated open platform should be established to facilitate broad discussions over science-related public policies among scientists, entrepreneurs, investors, government officials, media, and the public as a whole.

(2) Digital Transformation

Digital transformation (DX) is one of the keys not only to improve socio-economic and cultural activities but also to efficiently tackle various global issues including COVID-19, climate change, natural disasters and so forth. Also, it is crucial to recognize the flip side of DX which was surfaced in the pandemic, such as a risk to further expand digital divide. DX should be implemented in a human-centric manner so that anyone can access and enjoy the benefit of innovations, science and technology as a wholesome package. We should consider appropriate measures and regulations that take into account human rights and development of human resource with acute sense of ethics and fairness among scientists.

(3) Science-based Policy

The importance of scientific knowledge in science-based policy making has been reaffirmed and alarmed/alerted by COVID-19. The achievement and experience by science during the pandemic should be utilized and leveraged in order to address other major challenges. We should communicate more closely with policy-makers and the general public to properly understand what challenges are being faced and how science can contribute to the solutions, not the problems. International policy making should reflect globally, regionally and locally science-based knowledge.

(4) Open Science

The role of science or open science as a global public good is advancing. No one as a citizen is left behind in the process but in a manner which is globally inclusive, with a voice for all, sensitive to

¹ Asian Development Bank "KEY INDICATORS FOR ASIA AND THE PACIFIC 2021", "extreme poverty" means living on less than \$1.90 a day.

diverse perspectives, and with ideas, evidence and data circulating freely, quickly and efficiently. Science is evolving and will continue to evolve, however the knowledge accumulated in laboratories and libraries have to become more accessible and more accountable to citizens and societies.

(5) Scientific Responsibility

The realization of an inclusive society is also an important point of view in the development and implementation of science and technology. In today's diverse society, science should be progressed, respecting diversity in opinion and value of all people, young and old, gender equality and no racial discrimination. Scientists recognize the scientific responsibility in the contemporary context in the global sense that science should be advanced protecting and promoting fairness and morality.

SCA is an inclusive platform that respects the autonomy of each academy. To tackle current challenges and realize sustainable development, it will be necessary for the national and regional academies to expedite working together based on solid relationships. SCA has contributed to not only exchanging knowledge and information about science and technology, but also deepening mutual relations among members. SCA should continue to serve and function as a platform that contributes to realizing sustainable and inclusive society.

4. Initiatives in Short Term

(1) Membership and Building a Bigger, Inclusive Community

SCA is comprised of 31 organizations from 18 member countries and regions in Asia. It has been providing a fair, desirable space where diversified scientists discuss regional issues, creating a stimulating network. As membership dues are not required, it enables scientific organizations to join easily. In addition, SCA has two particular characteristics. First, it covers all academic disciplines, including social sciences and humanities. Second, more than one organization from one country can join SCA. This aspect of SCA enables members to have inter-disciplinary discussions aiming at science-based solutions, which is a notable advantage of SCA.

The number of SCA member academies has not increased in recent years. To achieve the Goals and Targets fully effectively, it is important to further widely share the challenges and findings with as many Asian academies as possible. For this reason, SCA should work to build a bigger community and welcome new academy members. For example, non-member academies of non-represented countries are encouraged to be invited to an annual conference so that they can be aware of benefits of becoming a member of SCA.

(2) Academic Conferences

The scheme of the annual conference are recommended to refine as follows to enhance cooperation and further foster relationship with society.

i More diversified: Not limited to the academia but all sectors and stakeholders, including policymakers, businesses, and media to be invited to interact.

ii More flexible: Annual conference can be held both online and offline in hybrid style, for better, more open access to the world beyond Asia.

To attain more inclusive discussion, it is not without saying that we put further effort into promoting diversity of gender, age, region and academic discipline balance, such as encouraging involvement of female and young scientists in the conference. Also, it is recommended to regularly check the progress of implementation of the Future Strategic Plan annually at the Management Board Meeting and/or General Assembly, and articulate challenges for the following year(s) in a conference declaration for specific actions.

(3) Scientific Consultation

An open network opportunity is also recommended to be arranged by the host organization of annual conference to facilitate global governance, which is indispensable for realizing sustainable development and inclusive society.

In addition, SCA should consider how to harness the discussion from the conference to the international and/or regional policy-making. To build a trusted relationship between science and politics, conferences can create effective impact, should academic conferences be designed and implemented in a style to accelerate a constructive dialogue between academies and policy-makers, for example.

(4) International Collaboration

SCA has been the inter-disciplinary conference body since its inception. Recently, Inter- and transdisciplinary activities and initiatives which involve various stakeholders have become more important.

Strengthening the collaboration with other international organizations and networks would be extremely positive to solve common issues in Asia and the world, and to enhance to SCA's initiative in promoting and disseminating Asia's scientific achievements as well as cooperating with global effort.

(5) Publications and Publicity

The SCA website should be more frequently updated to include recent activities such as symposiums and seminars of member organizations, their publications and so on. Member organizations are encouraged to contact SCA secretariat for that purpose.

For further development, enhancement of communication among member organizations is recommended. Members are encouraged to disseminate information and achievements related to academic events through the annual conference and the SCA website, which will consolidate the role of SCA as a platform for scientific exchange in Asia.