

Summary of Academy of Science Presidents' Meeting (APM) during STS forum 2015

Date: 14:40-16:40, 5 October, 2015

Venue: Room 104, KICC

Organizer: Science Council of Japan (SCJ)

Participants: Presidents or Representatives from Science Academy or Scientific Organizations in Canada, Chile, Dominica, France, Germany, Indonesia, South Korea, Latvia, Lesotho, Malaysia, Poland, Russia, Slovakia, Sudan, Thailand, UK, USA, New York, AASSA (The Association of Academies and Societies of Sciences in Asia), and Japan. In total 22 participants attended.

Co-chairs: Professor Eisa El Gaali, President of Sudan Academy of Sciences,
Professor Takashi Onishi, SCJ President

Theme: “For better sustainability: role of science and technology for better implementation of SDGs”

Summary of discussion:

1. Overview

After the self-introduction by the participants, Professor Onishi, the Co-chair, explained the topic of the meeting and the role of Science and Technology (ST) in sustainable development, such as SDGs (Sustainable Development Goals). Especially, he emphasized the importance of ST's collaboration with society. As an example, an international program of Future Earth, in which SCJ participates as one of the Global Secretariat members, was introduced by Professor Kasuga, Future Earth Global Hub Director for Japan. Some countries expressed their support to the initiative of Future Earth.

The discussion then proceeded to the main topic, and many participants introduced their domestic undertakings as well as international collaborations. Furthermore, some fundamental issues, such as the scientific meaning of “sustainability” and the question of how ST can contribute to practical implementation of sustainable development. Some specific issues, such as promotion of further female participation in academic activities, science education, energy problems, cooperation with society, bilateral/multilateral collaboration, were also emphasized by many participants. Finally, Professor El Gaali summarized the discussion, saying that the ambitious goals of SDGs will be achieved through appropriate ST contributions. The points highlighted during the discussion are as follows.

2. SDGs and ST

- It will be impossible to maintain the current socio-economic trends. Thus far, ST has not been involved sufficiently in the process of development, which is problematic. ST will be able to contribute a lot to the achievement of SDGs, and the role of ST in SDGs implementation should be strengthened.
- Issues raised in SDGs are interdisciplinary, and there are some fundamental questions to ST, such as measurability and theoretical modelling of complexity. Therefore, the goals of SDGs should not be dealt with individually, and the framework of ST should also be thoroughly reconsidered with more holistic views.
- Although it is said that Science is value neutral, the word of “sustainability” contains some values and social meanings. Thus, more contribution from social science can be expected. ST should make people’s behaviors more conducive to sustainable development. Inter-generational perspectives was also stressed.
- In order to utilize ST more usefully, evidence-based analyses and implementation, such as collection of data and monitoring, are inevitable. In these days, the availability of data is expanded because of technological innovation in some fields, such as satellite monitoring and Big Data.
- There is a dilemma between economic prosperity and defending the Earth’s environment. Natural resources are the source of wealth but should not be exploited. ST will be able to play a significant role to figure out this situation. For example, higher value export industry can be developed, and innovation will be necessary to promote knowledge-based industry. Developing countries should improve their ST capabilities and upgrade their industry structure in order to contribute to the achievement of SDGs.

3. Specific issues

- Many countries/regions now pursue the promotion of female participation. However, this should be further strengthened. In academic fields, the female participation should be advanced further, and a balance approach is required to this end.
- Many goals of SDGs are related to education. Highly educated people will be needed to achieve the goals. In this regard, it is inevitable to provide better education through social networks, and nurture science literacy among people. It is also said that early child education is effective. Human capital is the most important factor for innovation.
- Most of the issues around sustainability relate to the so-called energy problems that would be difficult to solve. Low carbon energy with low prices is required.
- Since the knowledge of academia on sustainability is limited, all genres of academy

should join forces and other stakeholders, such as business sector, should also be involved. In order to achieve SDGs, collaboration among various people is necessary. It is also important to incorporate scientific methodology in policymaking, and academia should strengthen their political influence. The collaboration with politicians at the global/regional levels is expected.

- There are many bilateral undertakings, but some international/global cooperation will be more effective. For example, data collection could be dealt with at the global level. Global urban networks would be useful for interactive learning.
- The priority is to overcome diseases and starvation in developing countries as well as to improve health for young. Not only basic science but also applied science are important.

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