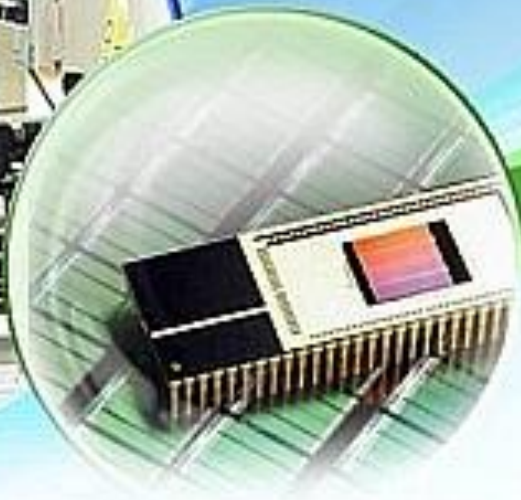


“AASSA-NAST PHL Workshop”, Taal Vista Hotel,  
Tagaytay City, Philippines; 28-29 September, 2016

# The Role of KAST for Sustainable Development

Hyun-Ku Rhee

Korean Academy of Science & Technology



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MP 82-10-5343-8826

# CONTENTS

## 1. Introduction to the Korean Academy of Science and Technology (KAST)

- Historical Highlight
- Major Characteristics
- Membership
- Major Activities
- Publications

## 2. The Role of KAST for SD

- Think Tank
- Educational Institution
- Assembly of Scholars and Experts
- International Network

# KAST

The Korean Academy of Science and Technology

# President's Inaugural Message

**“ We have to be Proactive  
and Share the Vision  
that will bring the  
Best of Science  
to Government and  
the Public”**

**Dr. Myung-Chul Lee**  
KAST President



# Historical Highlight

# 1994

# 2016

1994  
1999

2000  
2004

2005  
2010

2011  
2016

**Feb 4, 1994** Korean Academy of Science and Technology Establishment Committee initiated  
**May 13, 1994** The 1st meeting of the Establishment Committee held  
**Jul 28, 1994** Charter members meeting held  
**Nov 9, 1994** Founding members selected by the Review Committee  
**Nov 22, 1994** Inaugural General Assembly held  
**Dr. Wan Kyoo Cho** elected as the founding President  
**Mar 27, 1998** Dr. Mu Shik Jhon elected as the 2nd President at General Assembly

**Sep 22, 2000** Inaugural meeting for the Association of Academies of Sciences in Asia (AASA) held  
 The office of AASA secretariat opened at KAST  
**Mar 1, 2001** Dr. In Kyu Han took office as the 3rd President  
**Jul 16, 2001** Legal status of KAST specified in the "Basic Law of Science and Technology"  
**Sep 3, 2003** New KAST building dedicated  
**Oct 29, 2003** International Symposium held to commemorate the completion of the new KAST building  
**Mar 1, 2004** Dr. KunMo Chung took office as the 4th President  
**Apr 30, 2004** KAST Lounge opened  
**Nov 19, 2004** The 10th anniversary international symposium held

**Mar 31, 2005** KAST promoted to a statutory organization by a revision to the Basic Science Research Promotion Law (Presidential Decree No. 7424)  
**Mar 1, 2007** Dr. Hyun-Ku Rhee took office as the 5th President  
**Feb 29, 2008** Legal status of KAST specified in the organization of the Ministry of Education, Science and Technology  
**Mar 1, 2010** Dr. Kil Saeng Chung took office as the 6th President  
**Oct 18, 2010** The 10th anniversary of AASA celebrated  
**Nov 24, 2010** National Assembly-KAST Society for Science, Technology and Innovation initiated

**Oct 18, 2012** AASSA secretariat opened at KAST following the merge of AASA and FASAS  
**Nov 1, 2012** The 1st Inter-Academy Seoul Science Forum held  
**Mar 1, 2013** Dr. Sung Hyun Park took office as the 7th President  
**Oct 11, 2013** 'Campaign for Supporting KAST Vision 2020' initiated  
**Nov 12, 2014** The 20th anniversary celebrated and '20 Years of KAST History' published  
**Mar 1, 2016** Dr. Myung-Chul Lee took office as the 8th President



# Major Characteristics



KAST is the institution with the most distinguished scientists in Korea

KAST is a nongovernmental academic institution dedicated to research, evaluation and consultation for national science and technology policies



**KAST plays a major role in promoting public understanding in matters of science and technology and in creating a social climate where scientists and engineers are respected**



KAST is the driving force in advancing and globalizing nation's academic activities in science and technology

# Vision and Strategy

## Mission

To **promote science and technology**  
by consolidating a **creative** national foundation

## Core Values

Quality  
Science and  
Technology

International  
Leadership

Science and Technology  
with  
The people

## Vision

**A Dynamic Academy**

## Strategy

To develop a creative  
environment

To establish  
international leadership

To promote a people-  
friendly  
science culture

# Membership

*KAST's members are categorized into **Fellow**, **Fellow Emeritus**, **Foreign Member**, **Associate Member**, **Honorary Member**, and **Patron Member**. The number of Fellows is limited to **500**.*

## Membership Statistics (as of October 31, 2016)

### Fellows

Policy Research	Natural Sciences	Engineering	Agricultural & Fishery Sciences	Medical Sciences	Total
19	149	149	73	98	488

### Others

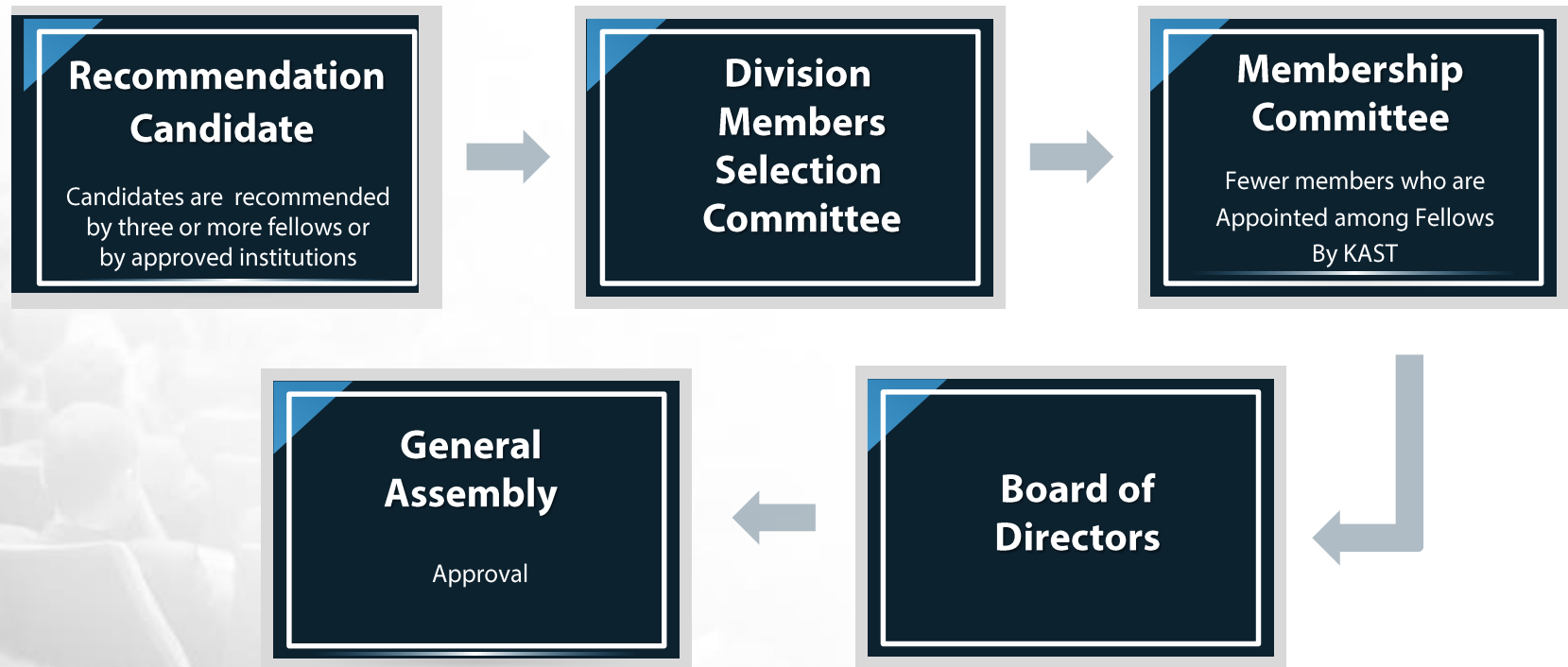
Fellow Emeritus	Foreign Member	Associate Member	Honorary & Patron Member	Total
388	73 (36 Nobel Laureates)	64	8	533



# Membership

## *Members Selection Procedure*

The KAST applies a **rigorous screening system** to select distinguished scholars whose **academic excellence is recognized internationally**.



# Major Activities

## *Science & Technology Policy Studies and Consultation*



**KAST Roundtable Discussions**

**Policy Study Projects**

**Voice of the KAST**

**Publications and Public Relations**

KAST presents long-term visions in the field of science and technology through its **independent consultation and recommendation on pan-governmental policies.**

# Major Activities

## Supporting Outstanding Young Scientists (Mentor Program)



**KAST Distinguished Lecture Series  
(Meeting with Distinguished Scholars of KAST)**



**Mentor Program for  
Outstanding Students**



**Nobel Science Essay  
Contest**

KAST nurtures future talents in all the fields of science by offering a variety of programs such as **in-depth lectures**, **interdisciplinary symposia**, and **one to one mentorship** with KAST members.

# Major Activities

## *International Cooperation*



KAST contributes to the **globalization and advancement** of science and technology by working closely with **academies in other countries and international science organizations**, and by offering **systematic support for outstanding scholars**.

# Major Activities

## International Cooperation



**Cooperation with Overseas Academies**



**International Symposia**



**AASSA Secretariat**

KAST maintains a long-term friendship with science academies overseas and builds a global network so that it can play a central role in non-governmental diplomacy in science and technology.

The Academy contributes to the improvement of the national status in science and technology through a variety of programs such as international symposia, international joint research, scholastic exchange program, and information exchange.

KAST hosts the secretariat of the Association of Academies and Societies of Sciences in Asia (AASSA), offering to achieve a society in Asia and Australasia in which science and technology play a major role in the development of the region.

# Major Activities

## Hall of Fame



Place of Induction Gwa-cheon National Science Museum

The Korea Science and Technology Hall of Fame was initiated to **commemorate and preserve the achievements of scientists and engineers** selected for their outstanding contributions to the **development of the country and the welfare of the people.**

# Major Activities

## Awards



KAST Science and Technology Award

Young Scientist Awards

Deokmyeong-KAST Engineering Award

FILA Basic Science Award

Daesang-KAST Food Science Award

Cargill-KAST Life Science Award

KAST-Hwandang Award for Medical and Pharmaceutical Sciences

The Academy administers various award programs to recognize and encourage scientists and engineers who have made **outstanding achievements in scientific research and development** and **great contributions to the national development in science and technology**.

KAST releases the following publications

# Publications

Policy Study Reports  
 Proceedings of KAST Roundtable Discussions  
 Voice of the KAST  
 Proceedings of KAST Symposiums  
 Proceedings of KAST International Symposiums  
 Proceedings of KAST Distinguished Lecture Series  
 Annual Report (Korean and English)  
 Newsletter (Korean and English)

## The Science and Technology Series by Distinguished Scholars

- Vol.1: The Brain in Love, Chan-Woong Park
- Vol.2: A Journey with Nobel Laureates around the Earth, Kyung-Ryul Kim
- Vol.3: Celebrated Paintings Created by Diseases, Gook Jin Moon
- Vol.4: A to Z about Cell Culture, Seung U. Kim
- Vol.5: Undiscovered Secrets of Double Helical Structure, Byung-Dong Kim
- **Vol.6: Food Safety, Su-Rae Lee (deceased)**
- **Vol.7: The Earth: a Living Planet, Hi-Soo Moon**
- Vol.8: Dynamic Universe, Il-Tong Cheon
- Vol.9: Footsteps of Science and Technology, Joon Woo Park
- **Vol.10: Search of the Sea as Guided by Chemistry, K.R. Kim**
- Vol.11: Understanding of Brain to Understand My Mind, Chan-Woong Park
- **Vol.12: Chemistry and Polymer in Daily Life, Jin Chul Jung**
- Vol.13: Charms of Statistics, Sung Hyun Park
- Vol.14: Gyeongrak, the Philosophy of Flow, Hye-Jung Lee and Chang-Shik In
- Vol.15: The Age of Centenarians, Seung U. Kim
- **Vol.16: Happy Food Culture of Korea, Hong-Sik Cheigh**
- Vol.17: Toward a Compassionate Society: Science & Technology, Doe Sun Na etc.
- Vol.18: Exploration of the Mars and its Living Organisms, Young Key Minn
- **Vol.19: Artificial Organs Giving a New Life, Young Ha Kim**
- Vol.20: The Truth of Entropy, Kang Rae Cho
- **Vol.21: Parasites in Human Body: Enemy or Ally, Jong-Yil Chai**
- **Vol.22: Healthcare Using Marine Bio-resources, Se-Kwon Kim**
- Vol.23: Medical Terminology in Daily Life, Kyung Hwan Kim



Policy Study Reports      Proceedings of KAST Voice of the KAST      Roundtable Discussions



Parasites in Human Body: Enemy or Ally, Jong-Yil Chai      Healthcare Using Marine Bio-resources, Se-Kwon Kim      Medical Terminology in Daily Life, Kyung Hwan Kim



Brochure (Korean and English)      Newsletter (Korean and English)      2015 Annual Report



# Sustainable Development Goals -1

- Goal 1. End **poverty** in all its forms everywhere.
- Goal 2. End **hunger**, achieve **food security** and improved nutrition and promote sustainable agriculture.
- Goal 3. Ensure **healthy lives** and promote **wellbeing** for all at all ages.
- Goal 4. Ensure **inclusive and equitable quality education** and promote lifelong learning opportunities for all.
- Goal 5. Achieve **gender equality** and empower all women and girls.
- Goal 6. Ensure availability and sustainable management of **water and sanitation for all**.
- Goal 7. Ensure access to affordable, reliable, sustainable and modern **energy for all**.
- Goal 8. Promote sustained, inclusive and sustainable **economic growth**, full and productive **employment and decent work** for all.
- Goal 9. Build **resilient infrastructure**, promote inclusive and sustainable industrialization and foster innovation.
- Goal 10. Reduce **inequality within and among countries**.

# Sustainable Development Goals -2

- Goal 11. Make **cities and human settlements** inclusive, safe, resilient and sustainable.
- Goal 12. Ensure **sustainable consumption and production patterns**.
- Goal 13. Take urgent action to combat **climate change and its impacts**\*.
- Goal 14. Conserve and sustainably use the **oceans, seas and marine resources** for sustainable development.
- Goal 15. Protect, restore and promote **sustainable use of terrestrial ecosystems**, sustainably manage **forests**, combat **desertification**, and halt and reverse **land degradation** and halt **biodiversity** loss.
- Goal 16. Promote **peaceful and inclusive societies** for sustainable development, provide **access to justice** for all and build effective, accountable and inclusive institutions at all levels.
- Goal 17. Strengthen **the means of implementation** and revitalize **the Global Partnership** for Sustainable Development.

\* Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.

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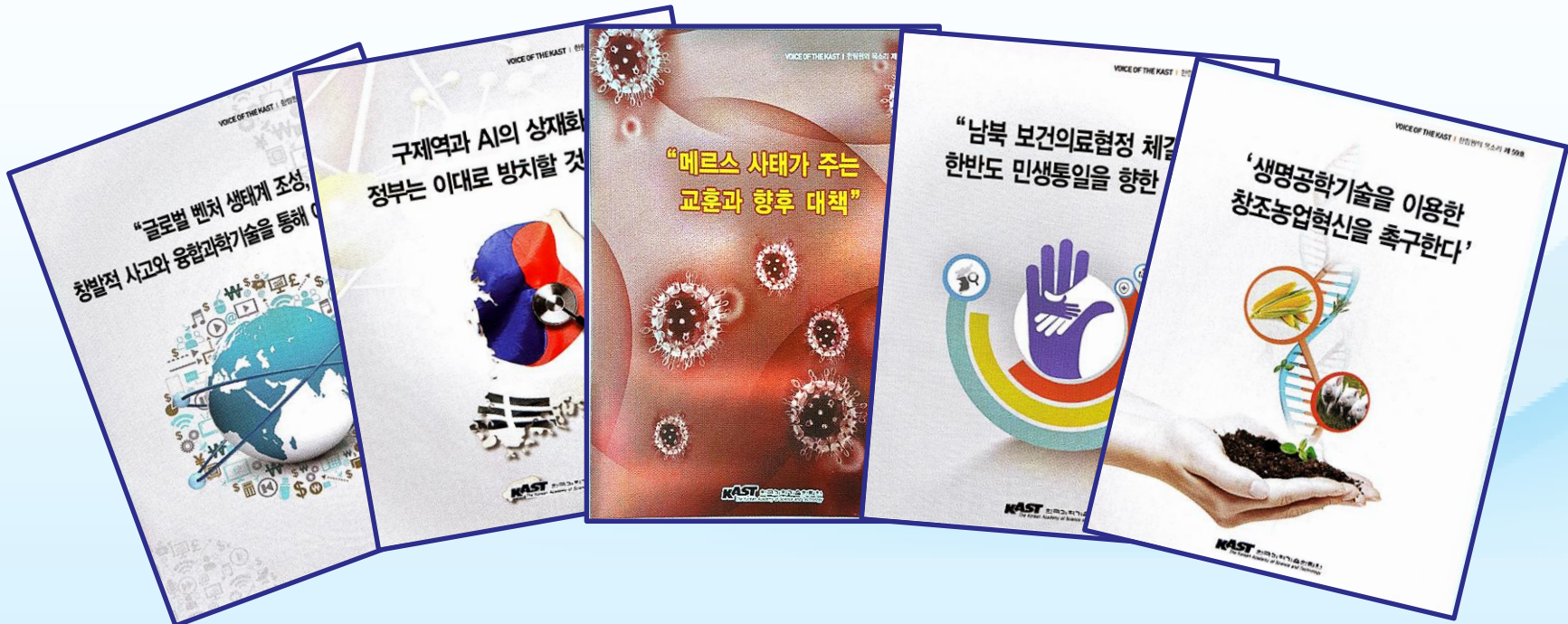
## 2. The Role of KAST for SD

- Think Tank
- Educational Institution
- Assembly of Scholars and Experts
- International Network

# Think Tank

## 1. Roundtable Discussions and Workshops

- Roundtable Discussions : more than **100 times** since 1996
- Issuance of the **“VOICE of the KAST”**: Series **No. 1 ~ No. 61**
- Recommendations and Suggestions for the **Government S&T Policies, and their Implementation and Evaluation.**
- Topics include most of the **SDGs of UN.**



# Think Tank

## 2. AASSA Regional Workshop in Seoul - 26 August 2015

- Theme : **Gender Issue** on Science Research and Education
- Issuance of the “Voice of the KAST”: It is urgent to build up a **creative research environment through the Gender Innovation.**
- Publication of Report “Women in Sci. and Tech. in Asia”
- Recommendations to the **Educators, Policymakers, Employers** and **Academies and Academic Societies**



# Conclusions

- **Gender disparity in S&T is severe** throughout Asian countries.
- The disparities lie at **every career level in S&T**: education, employment, promotion, and appointing for leadership positions.
- **Women's empowerment is crucial** for economic development of the countries.
- To achieve gender parity, **continued efforts** by the educators, employers, policy makers, and the academic societies are necessary.
- **AASSA should take a lead** in pursuing these actions domestically and internationally.

# Recommendations (I)

## Educators:

- Provide **equal opportunities** in science education for girls and boys and encourage girls in S&T education beginning at the grade school level.
- Prevent **gender bias** by educating parents and teachers about gender stereotypes.
- Encourage **girls to study science and to pursue careers in science.**
- Adopt **female friendly teaching methods** for teaching grade school students.
- Encourage **women to pursue graduate studies**, especially to the PhD degree.

## Policy makers:

- **Create legislation** to foster and support women in science and engineering.
- Establish **family friendly policies for women** in the workplace.
- Establish policies and procedures for ensuring **equality in hiring & promotion.**
- Create measures **to increase the percentage of women in research and academic positions**, and the number of **women in leadership positions in S&T.**
- Evaluate government programs in science and technology **through a gender lens.**

# Recommendations (II)

## Employers:

- Establish **family-friendly policies**, such as establishing **child care centers on-site**, and guaranteeing **a return to a person's original position after childcare leave**.
- Establish **stop-tenure clock policies for female faculties**.
- Promote **more women into leadership positions**.
- Encourage **flexible work schedules**.
- Establish **part-time university education for women**.

## Academies and academic societies:

- Establish **standing committees on women** in science in Academies and academic societies.
- Elect **more female members and fellows**, and increase women in all committees and programs.
- Establish **funds for travel grants, short term fellowships, and research grants for women** at various levels.
- Organize a **special session on women** in science at scientific conferences.
- Invite **women as keynote and plenary speakers**.
- Nominate more women for committees, Academies, Awards/Honors and to other leadership positions.



# Educational Institution -1

## 1. Education of Young Generation

### (a) Mentoring Talented High School Students

- Selection of mentee on the basis of application, study plan and interview : **20 ~ 30 mentees** every year
- Each mentee is matched with a **KAST fellow** and guided by **tutoring and often internship at mentor's laboratory**; 6 months period
- **Science camp** during the 6 months period



# Educational Institution - 2

## 1. Education of Young Generation

### (b) Meet the KAST Scholar Program

- KAST fellow may volunteer to provide **high school students with a distinguished lecture** on science, engineering, agriculture and medicine all over the country **including the countryside.**
- KAST fellows visit **more than 40 high schools each year** to explain the **frontier S&T, vision of S&T, story about Nobel Laureates, etc.**



# Educational Institution - 3

## 1. Education of Young Generation

### (c) Nobel science Essay Contest

- High School Students compete with their **essays on Nobel Laureates**
- Awards : **3 Grand Prix, 6 Gold, 12 Silver, 30 Bronze**
- Grand Prix Awardees are given the opportunity to **travel to Europe** including visit to the **Nobel Museum and attending the Nobel Lectures.**

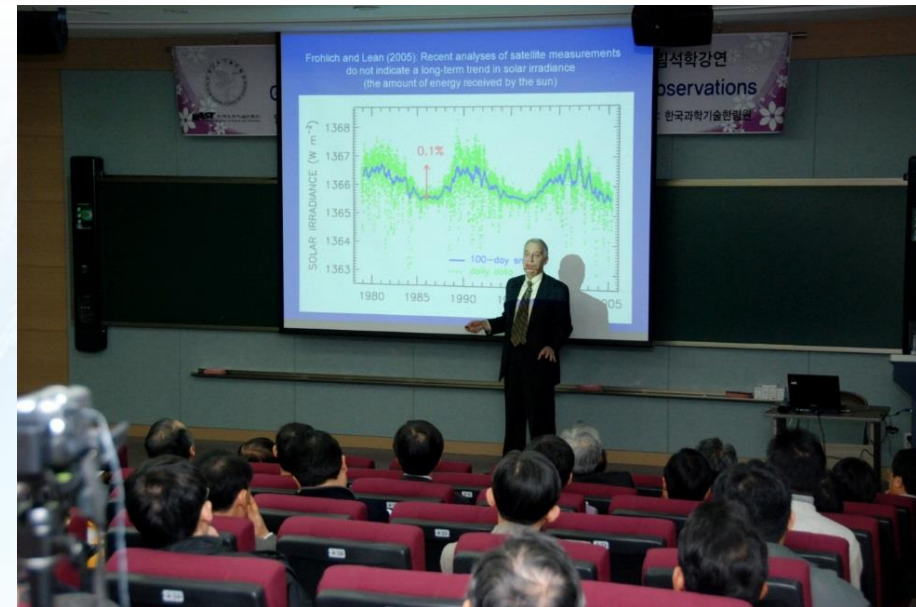


# Educational Institution - 4

## 2. Guidance for Public Awareness and Understanding of SDGs of UN

### (a) KAST Lecture by Distinguished Speakers - Nov. 19, 200

- **Ralph J. Cicerone**, President of U.S. National Academy of Sciences
- “**Global Climate Change and World Energy Demand**”
- Open to **Kast Fellows, Students, General Public, Policy Makers**
- Influence upon the public at large through **news coverage**



# Educational Institution - 5

## 2. Guidance for Public Awareness and Understanding

### (b) KAST International Symposium - Nov. 20~21, 2008

- Climate Change : **The Scientific Reality and Technological Countermeasures**

Sessions : I. Climate Change: Impact and Adaptation,  
II. Technological Countermeasures,  
III. Mitigation Strategies in Industries

- Congratulatory Remarks by **Prime Minister Han Seung-Soo**  
**UN Secretary General Ban Ki-moon's** video messages

- Keynote Speeches by **IPCC Chairman R. K. Pachauri** and  
**Executive Director of IEA Nobuo Tanaka**

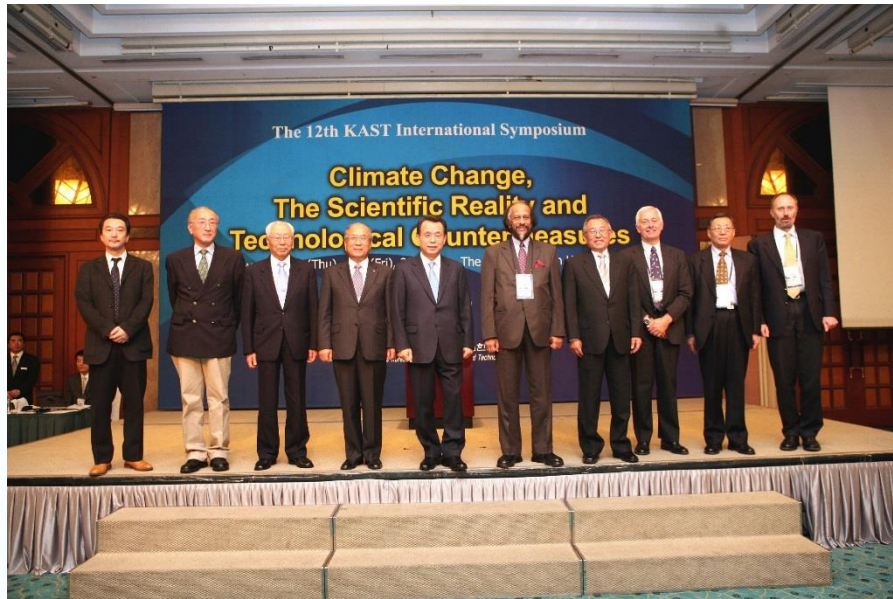
- 14 invited speakers including **five invited from abroad**

- Open to **Experts, Policy Makers, Law Makers, News Media, Public**

- Post-Symposium Recommendations and Suggestions were issued.

- **Enormous Impact** on Government, National Assembly, Academia and Public at Large through **wide news coverage**

# Educational Institution - 6



# Assembly of Scholars and Experts - 1

1. Distinguished Lectures, Symposia, Workshops, International Programs, R&D Projects, Etc.
  - Promotion of **information exchange and cooperation** among **members and experts, domestic & international**
  - Reach out to the **public at large** for awareness and understanding of issues involved with the SDGs.
2. Future Earth Korea National Committee
  - Launched on April 25, 2016 **under the leadership of ICSU**
  - 42 members led by the President Soon-Chang Yoon
  - Secretariat is hosted by the KAST.
  - Objective: Fostering research that addresses **major challenges to sustainability in Korea**

# Future Earth

## research for global sustainability



photos: www.dawide.com

### Future Earth: goal

To provide the knowledge required for societies in the world to face risks posed by global environmental change and to seize opportunities in a transition to global sustainability



UNITED NATIONS  
UNIVERSITY



WMO





**Future Earth Korea National Committee** launched April 25, 2016. It will play an important role in fostering research that addresses major challenges to sustainability in Korea. Endorsed by National Academy of Sciences, the secretariat of Future Earth Korea is hosted by the Korean Academy of Science and Technology.

#### **Future Earth Korea National Committee (2016. 5. 27)**

- **42 Members**
- President: Soon-Chang Yoon (Vice President for External Relations, Korean Academy of Science and Technology)

#### **Future Earth Korea National Advisory Committee (2016. 5. 27)**

- **6 Members**
- President: Won-Hoon Park (AASSA Founding President)

## Future Earth Korea Workshops & Meetings 2016

- |    |   |                |
|----|---|----------------|
| 1. | The 1 <sup>st</sup> “Future Earth – Korea” Workshop:<br>Launch of Future Earth Korea Program and Future Plans                                   | April 22, 2016 |
| 2. | Launch of Future Earth Korea Program & Future Earth Korea National Committee  | April 25, 2016 |
| 3. | The 2 <sup>nd</sup> “Future Earth – Korea” Workshop:<br>UN 2030 Sustainable Development Agenda: Korea Agenda and the Role of Future Earth Korea | May 20, 2016   |
| 4. | The 1 <sup>st</sup> Future Earth Korea National Committee Meeting   | Jun 16, 2016   |
| 5. | The 3 <sup>rd</sup> “Future Earth – Korea” Workshop:<br>Forest Preservation in Korea  | Jun 16, 2016   |
| 6. | The 1 <sup>st</sup> Future Earth Korea National Advisory Committee Meeting  | Jun 20, 2016   |



Launch of Future Earth Korea (2016. 4. 25)



1st Future Earth-Korea Workshop (2016. 4. 22)



2nd Future Earth-Korea Workshop (2016. 5. 20)



3rd Future Earth-Korea Workshop (2016. 6. 16)

# Assembly of Scholars and Experts - 2

## 3. Food & Nutrition Security and Agriculture (FNSA)

- A Project driven by IAP and led by AASSA
- IAP: Asia-Pacific, Europe, Inter-America, Africa
- AASSA: South East Asia, South, Central, Australia-Pacific
- Working Committee is formed to prepare a country report, “FNSA - The Korean Perspective”.
- Search for the role of Korea for Food Security in Asia-Pacific Region and how to cooperate



# Assembly of Scholars and Experts - 3

## 4. Publications

- Policy Study Reports and Voice of the KAST
- Proceedings of Symposia and Workshops
- The **S&T Book Series by KAST Fellows** : for example,
  - 1) Food Safety, 2) The Earth, A Living Planet, 3) Search of the Sea guided by Chemistry, 4) Parasites in Human Body: Enemy or Ally, 5) Healthcare using Marine Bio-Resources



# International Network - 1

## 1. Future Earth Program and IAP Project of FNSA

- Two examples of international cooperation for SDGs

## 2. KAST international Symposia and Workshops

- KAST has signed **MOUs with 46 Academies and Academic Societies in 37 countries**
- KAST hosts **bilateral symposia with Academies** in Africa, France, Germany, Italy, Mongolia, Russia and U.S.A.
- Previous activities include Australia, Canada and Sweden.
- Recently, KAST interacts with **Academies in developing or less developed countries**; e.g., **African Academy of Sciences(AAS)** and **Mongolian Academy of Sciences(MAS)**.
  - \* 1<sup>st</sup> AAS-KAST Bilateral in Nairobi, Kenya  
and 2<sup>nd</sup> KAST-AAS Bilateral in Seoul, Korea
  - \* 1<sup>st</sup> MAS-KAST-NRSO Bilateral in Ulaanbaatar, Mongolia

# The 1ST KAST-AAS BILATERAL SYMPOSIUM

**Theme : Recent Advances in Biosciences and Biotechnology for Socio-economic Development**

**06 JULY 2015, OBASANJO CONFERENCE ROOM, AAS, NAIROBI, KENYA**

**DAY 1: Monday July 6th 2015**

TIME	EVENT	SPEAKER
08.30 – 0845	<b>REGISTRATION</b>	
08:45 – 09.15	Introductory Welcome Statement	<b>Prof. Aderemi Kuku</b> , President, African Academy of Sciences (AAS) <b>Prof. Sung Hyun Park</b> , President, Korean Academy of Science and Technology (KAST)
09.15 – 09:50	Malaria Control in Africa: Successes, Challenges and Opportunities	<b>Abdisalan Noor</b> , KEMRI/ Wellcome Trust-Research Programme (KEMRI-WTRP), Kenya.
09:50-10:25	Metabolic engineering of sweet potato pigment antioxidants in transgenic plants for sustainable development on global marginal lands	<b>Sang-Soo KWAK</b> , Plant Systems Engineering Research Center, Korea Research Institute of Bioscience and Biotechnology (KRIBB), South Korea.
10.25 – 11:00	<b>TEA BREAK</b>	
11:00 – 11:35	A new horizon of microalgal biotechnology for cyanobacterial bloom control and microalgal products simultaneously	<b>Hee-Mock Oh</b> , Korea Research Institute of Bioscience & Biotechnology (KRIBB), South Korea.
11:35 – 12:05	Developing high value commodities from Africa's plant resources through product-focused research	<b>Ermias Dagne</b> : African Laboratory for Natural Products (ALNAP), Department of Chemistry, Addis Ababa University, Ethiopia.
12.05 – 12.40	Cellular modelling of human diseases using induced pluripotent stem cells	<b>Yong-Mahn Han</b> , Dept. of Biological Sciences, Korea Advanced Institute of Science and Technology (KAIST), South Korea.
12:40-13:00	General Discussion	
13:00– 14:00	<b>LUNCH</b>	
14.00 – 14.35	Capacity Building for biosciences in Africa: the AESA Approach	<b>Thomas Kariuki</b> , Alliance for Accelerating Excellence in Science in Africa (AESAs), African Academy of Sciences, Kenya
14.35 – 15:10	Cancer Genomics and personalized medicine	<b>Yong-Koo Park</b> , Department of Pathology, Kyung Hee University Hospital, South Korea.
15:10 – 15:45	Establishment of mucosal immunology assays for use in HIV vaccine evaluation	Omu Anzala, KAVI – Institute of Clinical Research, College of Health Sciences, University of Nairobi, Kenya.
15:45 – 16:20	Anticancer and anti-inflammatory activities of Korean herbal medicine	<b>Yeong Shik Kim</b> , Natural Products Research Institute, College of Pharmacy, Seoul National University, South Korea.

# International Network - 2

## 2. KAST international Symposia and Workshops

\* 1<sup>st</sup> AAS-KAST Bilateral Symposium in Nairobi, Kenya





# The 2nd KAST-AAS Bilateral Symposium

*Theme: "Bio-Natural Resources and Their Applications"*  
*- Korea-Africa Science, Technology and Innovation(STI) Cooperation -*

**Wednesday, 20 April 2016, Maple Hall, The Plaza Hotel, Seoul, Korea**

Time	Contents
09:30 – 10:00	<b>Registration</b>
10:00 – 10:30	<b>Opening Ceremony</b> - <b>Welcoming Remarks</b> : Myung Chul Lee (President, The Korean Academy of Science and Technology (KAST)) - <b>Congratulatory Remarks</b> : Aderemi Kuku (President, African Academy of Sciences (AAS)) Jong-Guk Song (President, Science & Technology Policy Institute (STEPI))
10:30 – 10:40	Group Photo
<b>Session 1: Africa, the Opportunity for Science, Technology and Innovation</b>	
10:40 – 11:00	<b>Introduction of the African Academy of Sciences</b> Aderemi Kuku (President, African Academy of Sciences(AAS))
<b>Session 2: Emerging Technologies for the Sustainable Development of Africa</b>	
11:00 – 11:30	<b>CRISPR RNA-guided Genome Editing in Human Stem Cells, Animals, and Plants</b> Jin Su Kim (Director, Center for Genome Engineering, Institute for Basic Science(IBS), / Professor,ul National University)
11:30 – 12:00	<b>Identification and Characterization of New Protein Markers of Protective Immunity Against Malaria in the Cameroon Rain Forest = a Mini Review</b> Vincent P.K. Titanji (Vice Chancellor, Cameroon Christian University/ Vice President, African Academy of Sciences(AAS))
12:00 – 12:30	<b>Symbiotic Rhizobia are Key to a Well-Fed and Healthy Africa</b> Felix Dapare Dakora (Professor, Tshwane University of Technology Arcadia Campus ember, African Academy of Sciences(AAS))
12:30 – 12:40	<b>Q &amp; A</b>

# International Network - 3

## 2. KAST international Symposia and Workshops

\* 2<sup>nd</sup> KAST-AAS Bilateral Symposium in Seoul, Korea



# The 1<sup>st</sup> MAS- KAST- NRSO Bilateral Symposium

**Theme : “The Application and Practice of Statistics – National Economic Development”**

**9-10 June 2016, Ulaanbaatar, Mongolia**

[Thursday, 9 June 2016]

*\*Venue: Conference Hall)*

Time	Contents
08:20 – 08:50	<b>Registration of Participants</b>
09:00 – 09:30	<b>Opening Ceremony</b> <b>Opening Remarks</b> Prof. Regdel. B. Vice-President of Mongolian Academy of Sciences (MAS) <b>Welcoming Remarks</b> Mr. Mendsaikhan. S. Chairman of National Registration and Statistics Office (NRSO), Mongolia Prof. Sung Hyun Park, Head of Delegations from the Korean Academy of Science and Technology (KAST)
<i>Morning Session</i>	<b>Chair of Session: Prof. Dorj. T. Vice-President of Mongolian Academy of Sciences (MAS)</b>
09:30 – 09:55	<b>“Current Development of Mongolian Statistics and its Future Perspectives”</b> Mr. Mendsaikhan Sonomtseren, Chairman of National Registration and Statistics Office of Mongolia
09:45 – 10:05	<b>The Past, Present and Future of Quality Management in Korean Industry; How does the Application of Statistics Help Quality Management?</b> Prof. Sung Hyun Park Former President of the Korean Academy of Science and Technology (KAST)
10:05 – 10:25	<b>Analytical result regarding the significance of the Multivariate Regression model for predicting GDP of Mongolia</b> Prof. Dorj. T Vice-President of Mongolian Academy of Sciences (MAS)
10:25 – 10:45	<b>Discussion</b>
10:45 – 11:00	<b>Group Photo</b>
11:00 – 11:20	<b>Coffee Break</b>

# International Network - 4

## 2. KAST international Symposia and Workshops

\* 1<sup>st</sup> MAS-KAST-NRSO Bilateral Symposium in Ulaanbaatar, Mongolia



# International Network -5

## 3. Operation of AASSA Secretariat

- KAST supports AASSA in **financing, administration and program operation** and **thereby AASSA's activities for SDGs**.

## 4. Inter-Academy Seoul Science Forum (IASSF)

- KAST hosts IASSF **every year since 2012**.
- A good number of Presidents, Vice Presidents, Secretary Generals, Foreign Secretaries of foreign academies participate in the **Roundtable Discussion Session**.
- **In 2015, 17 representatives** from academies of different countries participating in the Roundtable Discussion.
- Issues discussed include **many of the SDGs**; e.g., Climate Change, Food & Nutrition Security, Environment, Education, Water Resources, Gender Inequality, Social Welfare, etc.
- An excellent forum to **share ideas, policies, programs, information and data among participating academies**.



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2015 INTERNATIONAL SEOUL SCIENCE FORUM  
2015 세계과학한림원서울포럼



# Concluding Remarks

1. The KAST has been engaged in dealing with sustainable development through **its various programs and activities**.
2. The KAST is indeed **an almost ideal institution** to develop solutions to the **SDGs of UN** because it can **bring together scholars and experts from different disciplines**.
3. The KAST will continue to **fulfill its obligations and share its capabilities** with academies and academic organizations all around the world **to pursue the SDGs of UN**.
4. The KAST identifies its roles as **a Think Tank, an Educational Institution, an Assembly of Scholars and Experts, and an International Network** for sustainable development.



# THANK YOU

The Korean Academy of Science and Technology