## Nomination of Prof. Takashi Kosaki for President of IUSS

# I. Details of the Nominee

Name: Prof. Takashi Kosaki Date of Birth: December 24, 1952

Gender: Male
Nationality: Japan
Current Position: Professor

Address: Tokyo Metropolitan University

Graduate School of Urban Environmental Sciences 1-1 Minami-osawa, Hachioji, Tokyo 192-0397, JAPAN

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Languages: Written Spoken

JapaneseExcellentExcellentEnglishGoodExcellentGermanFairFairFrenchFairFair

# **II. Details of the Nominators and Signatories**

Name: em. Prof. Dr. Kazutake Kyuma

(Honorary Member of IUSS)

Address: Kyoto University

Kitashirakawa, Sakyo, 606-8502 Kyoto, JAPAN

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Name: em. Prof. Dr. h.c. mult. Winfried E.H. Blum

(Honorary Member of IUSS)

Address: University of Natural Resources and Life Sciences (BOKU), Vienna

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# **III. Letter from Nominee's Employing Institution**

Name: Prof. Dr. Jun Ueno, President, Tokyo Metropolitan University

Address: 1-1 Minami-osawa, Hachioji, Tokyo 192-0397, JAPAN

Phone: (+81-42) 677-1111

# IV. Profile of the Candidate

#### a. ACADEMIC RECORD (Max. 20 lines)

#### **Degrees**

- 1. 1975 Bachelor of Agriculture (Agricultural Chemistry): Kyoto University, Kyoto, Japan
- 2. 1977 Master of Agriculture (Agricultural Chemistry): Kyoto University, Kyoto, Japan
- 3. 1982 Doctor of Agriculture (Soil Science): Kyoto University, Kyoto, Japan

#### Awards, Prizes, Fellowships and Scholarships

- 1. Exchange Students Scholarship, Ministry of Education, the Government of Japan (in the MS Program in the Department of Soil Science, the University of Wisconsin-Madison, USA, 1975-1976)
- 2. Graduate Student Scholarship, Japan Student Scholarship Service. (1976-1980)
- 3. Encouragement Award, Japanese Society of Soil Science and Plant Nutrition. (1989)
- 4. Best Paper Award, Soil Science and Plant Nutrition (2006, 2010 and 2013)
- 5. Best Paper Award, Japanese Society of Pedology (2007 and 2009)
- 6. Emeritus Professor, Kyoto University, Japan (2008)
- 7. Japanese Society of Soil Science and Plant Nutrition Award (2010)
- 8. Honorable Mention Paper Award, American Society of Agricultural and Biological Engineers (2010)
- 9. Distinguished Professor of Research, Tokyo Metropolitan University, Japan (2010)
- 10. Best Paper Award, Japanese Journal of Soil Science and Plant Nutrition (2013)
- 11. Honorary Member, Japanese Society of Pedology (2013)
- 12. Award of Excellence, First International Soil Judging Contest, WCSS-IUSS (2014)

## b. POSITIONS HELD (Max. 20 lines)

1981-1985	Assistant Professor (Soil Science), Kyoto University, Faculty of Agriculture, Kyoto,	
	Japan	
1982-1984	Research Scientist (Soil Chemistry), International Institute of Tropical Agriculture	
	(IITA), Ibadan, Nigeria	
1985-1990	Assistant Professor (Soil Science), Obihiro University of Agriculture and Veterinary	
	Medicine, Obihiro, Japan	
1990-1994	Associate Professor (Soil Science), Kyoto University, Faculty of Agriculture, Kyoto,	
	Japan	
1994-2008	Professor (Soil Science), Kyoto University, Graduate School of Agriculture, Kyoto,	
	Japan	
2002-2008	Professor (Terrestrial Ecosystems Management), Kyoto University, Graduate	
	School of Global Environmental Studies, Kyoto, Japan	
2008-	Emeritus Professor, Kyoto University	
2008-	Professor (Tourism Science), Tokyo Metropolitan University, Graduate School of	
	Urban Environmental Sciences, Tokyo, Japan	
2016	Visiting Professor, Norwegian University of Life Sciences, Ås, Norway	

# c. SUMMARY OF EXPERTISE AND AREAS OF ACADEMIC RESEARCH/INTERESTS (Max. 20 lines)

- 1. **Soil genesis and classification:** (i) *Soil forming factors and processes*; acidification, volcanic materials, paddy-based land use in East and Southeast Asia, (ii) *Classification*; diagnostic horizons and taxonomic units associated with rice cultivation and volcanic activities.
- 2. **Soil information systems:** (i) *Structure of efficient soil data management systems*; methodologies in standardization, analogue-digital conversion, storage and retrieval, GIS, (ii) *Communication tools*; use of web-internet, cloud and mobile terminals.
- 3. **Soil fertility and land capability/suitability evaluation:** (i) *Multivariate statistical analysis*; extraction of controlling factors, quantification, rating, grouping, (ii) *Integration with legacy data*; soil map, long-term experiment and soil testing data.
- 4. **Soil variations in time and space:** (i) *Causes of variation*; natural vs. artificial, pedometrics, geostatistics, (ii) *Prediction*; monitoring, pedo-transfer functions and precision agriculture.
- 5. Land/soil degradation and remediation (based on the above 1-4): (i) *Processes*; salinization, soil carbon decline, GHG emission, erosion, pollution (heavy metals and radio-active nuclei), deforestation, shifting cultivation, mechanization, irrigation and drainage, urbanization, (ii) *Remediation and conservation*; crop and land management, nutrient cycling, soil moisture and temperature regimes, (iii) *Technology transfer*; Africa, Asia, Latin America, on-farm trials, north-south, south-south and urban-rural collaboration, rural development, human security.
- 6. **Soil and environmental education:** (i) *Contents*; fauna, flora, minerals, disaster, good practices, (ii) *Tools*; public awareness, museum, field day, eco-tourism, (iii) *Philosophy*; sustainability, land ethics, religion, corporate social responsibility and holistic approach.

## d. SUMMARY OF NATIONAL AND INTERNATIONAL ACTIVITIES (Max. 20 lines)

- 1. **Japanese Society of Soil Science and Plant Nutrition**: President (2013-2014), Vice-President (2010-2012), Divisional Chairs (2006-2008, 1998-2000).
- 2. **Japanese Society of Pedology**: President (2010-2013), Honorary Member (2013-present).
- 3. **Science Council of Japan**: Appointed Member (2012-present).
- 4. Ministry/Government of Japan: Incorporated Administrative Agencies Evaluation Committee.
- 5. **International Union of Soil Sciences**: Chair of Division 3 (2014-present), Vice-Chair of Commission 3.5 (2010-2014), Member of ICSS/WCSS Organizing Committee (1990, 2014).
- 6. East and Southeast Asia Federation of Soil Science Societies (ESAFS): Member of Organizing Committee (1990 -1991), Member of Advisory Board (2008-2015).
- International Conference/Congress Contributions (as convener/co-convener): ICSS/WCSS (1990, 2010, 2014), ESAFS Conference (2009, 2011, 2013, 2015), ECSSS Eurosoil (2012, 2016), DesertLand (2013), ICOBTE (2015), INQUA Conference (2015), SUSTAIN (2015), SSSEA (2015).

#### 8. Editorial Contributions

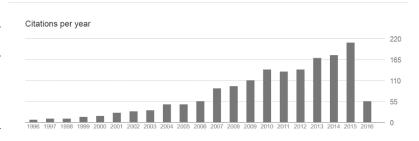
- (1) *Soil Science and Plant Nutrition* (cooperating journal of IUSS): Editor-in-Chief (1996-1997), Guest Editor for Special Issues (2013-2015) under the auspices of IUSS.
- (2) *Pedologist*: Editor-in-Chief (2004-2006), Responsible Editor for Special Issues (2010-2012) under the auspices of IUSS.
- (3) Japanese Journal of Soil Science and Plant Nutrition: Editor-in-Chief (2008-2009).
- (4) Applied and Environmental Soil Science: Editorial Board (2006-Present).

## e. SUMMARY OF PUBLICATIONS BOOKS & MONOGRAPH (Max. 15 lines)

a) Books:
b) Refereed International Journals:
c) Refereed Chapters and Reviews:
d) Refereed Conference Papers & Keynotes presentation:
19

e) Citation and h-Index (Google Scholar, as of May 28, 2016)

Citation indices	All
Citations	1668
h-index	22
i10-index	54



#### f. STATEMENT OF INTENT (Max. 30 lines)

1. International Decade of Soils (IDS): Will be implemented with a series of concrete activities which are well planned in advance and aiming at clear targets, seriously taking the efficiency and effectiveness into consideration, and executed according to the pre-defined schedule with necessary modifications on the way. a. A series of book will be published annually by IUSS to cover a variety of aspects of global and environmental issues common to the general public. Not only in printed form but in on-line media must be considered. **b. The World Soil Day** will be celebrated annually by organizing one-day symposia and/or forums with national societies for academic specialists involving not only soils experts but also those from related disciplines as well as for the general public. c. The framework of soil education will be standardized aiming at producing a set of materials for the use of teachers and students at different level of schools as a goal of IDS. 2. Cooperation with Sister Organizations: a. With Professional societies (e.g. EGU, AGU, JpGU, INQUA) will be jointly convened topical symposiums/sessions at annual meetings together with exhibition for promoting IUSS. b. With UN and CGIAR organizations and other international institutes (e.g. FAO, UNEP, UNDP, UNU, UNCCD, IAEA, IITA, IRRI, ICRISAT, ICARDA, IIASA) will be stronger collaboration for general publication (white papers, books), joint projects for specific topics (e.g. GSP and ITPS) in research, outreach, technology transfer, education activities. c. With Governmental organizations (e.g. EU, JICA, USAID, ACIAR, GIZ) will seek funding for specific projects, collaborate for promoting adoption of "Soil Protection" resolutions. d. With Private sector (e.g. Toyota, Mitsui, Sumitomo, AEON) will seek funding for projects initiating soil and environmental education and promoting CSR and CSV.

<u>3. Governance:</u> a. National societies and regional unions: Membership of IUSS will be expanded, particularly, in Asia and Africa, where more collaboration is needed for coping with hot issues regarding soil, environment and security. Regional unions (e.g. ECSSS, FESSS, ASSS, LASSS, ESAFS, SSSEA) will be properly connected with IUSS for prompt sharing information and activating collaboration. b. Divisions, commissions and working groups: Will more focus on high quality science on hot issues (global warming, land degradation, urban soils and environment, biodiversity, ecosystem services and soil education) and collaborate each other and also with related

academic communities. **c. Budgetary issues:** Will be strengthened by seeking support from member government, ICUS and national academies (e.g. SCJ), UN-based organizations, NPO/NGO and private sector.

#### APPENDIX - Acronyms

ACIAR: Australian Centre for International Agricultural Research

AGU: American Geophysical Union ASSS: Africa Soil Science Society

CGIAR: Consultative Group on International Agricultural Research

CSR: Corporate Social Responsibility

CSV: Creating Shared Value

DesertLand: Conference on Desertification and Land Degradation ECSSS: European Confederation of Soil Science Societies

FAO: Food and Agricultural Organization

ESAFS: East and Southeast Asia Federation of Soil Science Societies

FESSS: Federation of Eurasian Soil Silence Societies

EGU: European Geosciences Union

EU: European Union GHG: Greenhouse gases

GIS: Geographical Information System

GIZ: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

GSP: Global Soil Partnership

IAEA: International Atomic Energy Agency

ICARDA: International Center for Agricultural Research in the Dry Areas
ICRISAT: International Crops Research Institute for the Semi-Arid Tropics
ICOBTE: International Conference on the Biogeochemistry of Trace Elements

ICSS: International Congress of Soil Science ICSU: International Council for Science

IIASA: International Institute for Applied Systems Analysis

IITA: International Institute of Tropical Agriculture INQUA: International Union for Quaternary Research

IRRI: International Rice Research Institute

ITPS: Intergovernmental Technical Panel on Soils JICA: Japan International Cooperation Agency

JpGU: Japan Geoscience Union

LASSS: Latin American Soil Science Society (SLCS)

NGO: Non-Governmental Organizations

NPO: Nonprofit Organization SCJ: Science Council of Japan

SSSEA: Soil Science Society of East Africa SUSTAIN: Soil Functions and Climate Change

- do we underestimate the consequences of new disequilibria in soil properties?

UN: United Nations

UNCCD: United Nations Convention to Combat Desertification

UNDP: United Nations Development Programme UNEP: United Nations Environment Programme

UNU: United Nations University

USAID: US Agency for International Development

WCSS: World Congress of Soil Science