



**UNITED NATIONS
UNIVERSITY**

International Conference on Higher Education for Sustainable Development

High-level Panel 1: Whole-institution Approach

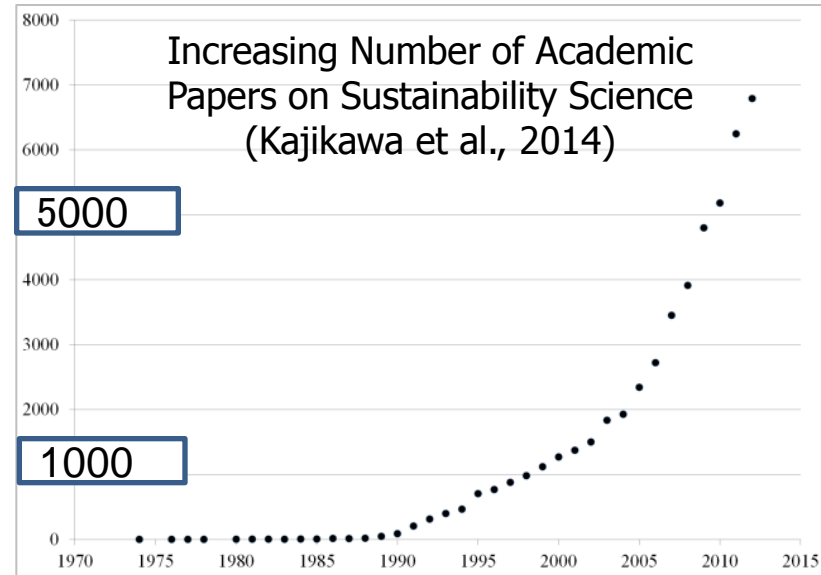
**Kazuhiko TAKEUCHI
UNU Senior Vice Rector
9 November 2014**

The Rise of Sustainability Science

- Importance of **Sustainability Science** is now widely recognized internationally in the 21st Century
- Increasing **challenges of global issues** such as climate change, biodiversity loss, and poverty in developing countries
- Need for an overarching perspective and **comprehensive approach** – these issues are difficult to tackle with individual subdivided academic disciplines
- Aim to derive long term, global solutions with focus on **regional and intergenerational equality**
- **Capacity development** through education is essential to solve the global issues through Sustainability Science



Sustainability Science Journal (SSJ)



What is Global Leadership in Sustainability Science Education?

- A **clear view of the complexity and severity** of global issues, while having a **positive outlook** for the future
- A comprehensive perspective on the complex relationships between humans and nature as a **social and ecological systems**
- The ability to integrate the findings of specialized research **to formulate solutions for complex problems**
- The ability to **coordinate and integrate** the opinions of different stakeholders
- **Strong leadership in prompting transformation** towards a sustainable society in the international community



Class at UNU



ProSPER.Net Young Researchers' School (Shanghai, 2014)

Enhancing Education in Sustainability Science

- Sustainability science provides the scientific foundation for recognizing the need for **societal transformation towards sustainability**, and a framework for teaching about sustainability issues.
- At all levels of education, and particularly in developing countries, new methods for teaching science are needed in order to promote **critical thinking and to develop problem-solving skills**.
- The education agenda must incorporate the **humanities and the study of ethics in the ESD curriculum**, with a focus on equity, justice, cultural freedom and other human rights.
- The **role of the research universities** in promoting the application of sustainability science is crucial. We could recognize the positive increase in such programs.
- To overcome the fragmentation of traditional disciplines some universities are also introducing **teaching modules that address complex problems** such as climate change.

(UNU/IR3S/UNESCO Symposium on Sustainability Science held on 19 Sept. 2013)

Higher Education Sustainability Initiative (HESI)



Rio +20 Commitment to Sustainable Practices of Higher Education Institutions

Higher education institution signatories commit to:

- 1) **Teach sustainable development concepts**, ensuring that they form a part of the core curriculum across all disciplines.
- 2) **Encourage research** on sustainable development issues, to improve scientific understanding through exchanges of scientific and technological knowledge.
- 3) **Green their campuses** by: i) reducing the environmental footprint; ii) adopting sustainable procurement practices; iii) providing sustainable mobility options for students and faculty; iv) adopting effective programmes for waste minimization, recycling and reuse, and v) encouraging more sustainable lifestyles.
- 4) **Support sustainability efforts** in the communities in which they reside.



UNITED NATIONS
UNIVERSITY

UNU's Role and Commitment Beyond 2014

- Commitments to SDGs, Global Action Programme (GAP) on ESD, and other international sustainability frameworks and processes through:
 - Promotion of **sustainability science**
 - **Policy-relevant research**
 - **Capacity development** through leadership programs
 - **Networking** of higher education institutions and multi-stakeholders