



北海道大学  
サステナビリティ・ウィーク 2016  
Hokkaido University Sustainability Weeks 2016

for not SOMEONE, but YOU  
from not SOMEDAY, but NOW  
to address issues of OUR planet

Hokkaido University

**International Symposium Commemorating  
the 10th Anniversary of the Sustainability Weeks**



The Role of Higher Education for Sustainable Development Goals (SDGs)

Oct 29 (Sat) - 30 (Sun) 2016

## Greeting



I would like to extend my sincere appreciation to all the participants and contributors who have helped organize the International Symposium Commemorating the 10th Anniversary of the Sustainability Weeks at Hokkaido University.

I believe the creation of a sustainable society requires a multifaceted approach based on various values. The annual Sustainability Weeks program is characterized by its variety of events focusing on the shared goal of helping to create a sustainable society, which makes the event all the more appealing and distinctive.

This symposium is a microcosm of the Sustainability Weeks program, as it features a variety of Parallel Session events to be held by organizations at Hokkaido University and elsewhere under the shared theme The Role of Higher Education for Sustainable Development Goals.

The UN Sustainable Development Goals (SDGs) established in January 2016 presented the world with the new challenge of implementing the 2030 Agenda for Sustainable Development toward the global achievement of 17 such goals by 2030. Their establishment coincided with the landmark year for the Sustainability Weeks - a coincidence that was perhaps predestined.

Like the UN, Hokkaido University also launched its own challenge with the President's Project Team for Sustainable Development in Hokkaido University Education in April 2016, the year for the 10th anniversary of the Sustainability Weeks. The team was tasked with laying out a vision for new initiatives in education to be taken by the university in order to further strengthen its foothold as an institution committed to education and research for a sustainable society.

At the end of the symposium's first day, a representative of the project team will outline a draft future vision for plenary discussion. To ensure multifaceted discussion, the presentation will be preceded by two keynote speeches on cutting-edge initiatives around the world.

The symposium includes Parallel Sessions before and after its Plenary Sessions to provide attendees with platforms for in-depth discussion and hands-on experience on the themes of the Arctic region, Hokkaido University Library, education for sustainable development, student perspectives, cultural heritage, and reconciliation. The Plenary Session on the second day will wrap up the symposium with a discussion on ideal university operation in the SDG era with focus on the needs of those working on the front line of education.

We hope the symposium provides opportunities for attendees to review the paths Hokkaido University has taken over the past decade and envision the future, as well as to learn about new action based on the evolved outlook required for the SDG era.

I trust everybody attending will find the event fruitful and take something positive away as they return to their daily routines.

Ichiro Uyeda  
Executive and Vice President, Hokkaido University  
Director, Institute for International Collaboration  
Chairperson, the Committee for Sustainability Weeks 2016

## Outline

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### **International Symposium Commemorating the 10th Anniversary of Sustainability Weeks "The Role of Higher Education for the SDGs"**

#### **Objective and Abstract of the Plenary Sessions**

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The 2030 Agenda for Sustainable Development was adopted at the September 2015 United Nations Sustainable Development Summit. This Agenda defines seventeen Sustainable Development Goals (SDGs) and seeks to achieve them globally by 2030.

The universities and the world of higher education that form the core of education, learning, research, and development must contribute proactively in this new era. Certainly, most people would agree that this cannot be achieved effectively without taking on new actions grounded in a new set of values.

How should we define this "new set of values"? Although these values have not yet been conceptualized, what types of phenomena and activities can help understand how prevalent they already are and suggest ways to realize them? What type of environment should be prepared in order to foster new actions? What do the faculty, researchers, and students who comprise a university, as well as the residents in the surrounding areas, need to have (or not have) in order to inspire them to take "new action," motivate them, and help them both take the first step and persist in their efforts?

#### **Meeting Day 1: Opening Plenary Session**

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In this session, through two keynote speeches, participants will gain an understanding of worldwide trends, as well as note signs by reviewing the history of sustainable society oriented practices and experiments in the United States of America and Germany that indicate the implementation of new values and actions in the era of SDGs. Subsequently, Hokkaido University's case will be discussed as a specific example. The "Sustainability Education Research Project Team" was established in 2015 as an initiative by the president of Hokkaido University. The team will summarize the current state and issues of the University's sustainability education and then present a draft proposal to the president for future strategy and action plan for sustainability education. Based on the team's presentation, designated commentators and session attendees will discuss the appropriate initiatives for universities that aim to contribute to SDGs.

#### **Meeting Day 2: Closing Plenary Session**

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In each parallel session on the second day of the symposium, attendees will be those "on the scene" of education and learning. They will share their teaching or learning experiences and challenges on a selected theme, such as education for sustainable development, students' perspectives in learning, or cultural heritage, and reconciliation. Through the discussion, they will also touch the set of values that universities should be grounded in and propose actions for universities to take based on these values, in order to develop higher education that contributes to the fulfillment of the SDGs. In the closing plenary session, which is the final event of this symposium, representatives from each parallel session will be given five minutes to provide their remarks based on the session discussions. Taking into consideration the expressed needs of those on the scene, the floor will be open for discussion of what universities should aim to achieve in the era of SDGs.

#### **Organizer**

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Hokkaido University

## Program

### 29 Oct (Sat)

#### 10:30-13:45 Parallel Session 1

- 10:30-12:30 Museum Tour 1
- 11:00-12:30 Citizen Seminar & Library Tour
- 11:30-13:30 Museum Tour 2
- 12:30-14:00 HESD Forum general meeting (closed meeting)

#### 14:00-17:30 Plenary Session 1

- 14:00-14:10 Opening Address
  - Ichiro Uyeda, Vice President, Hokkaido University
  - Noriko Suzuki, Assistant Director-General for International Affairs Ministry of Education, Culture, Sports, Science and Technology (MEXT)
- 14:10-14:30 Background of the Symposium Contributions to SD to Date & Future  
Ichiro Uyeda, Vice President, Hokkaido University
- 14:30-15:15 Invited Keynote Speech 1  
**The Role of Higher Education in Achieving the Sustainable Development Goals**  
Kimberley D. Smith, Board of Directors, Association for the Advancement of Sustainability in Higher Education (AASHE)
- 15:15-16:00 Invited Keynote Speech 2  
**A Knowledge Creation to Deal with Uncertainty in the SDGs Era**  
Ayako Takao, Associate Professor, Ferris University
- 16:00-16:20 Break
- 16:20-17:30 Special Presentation: **Future Design of Education for Sustainable Development in Hokkaido University**
  - Chair:** Toru Onai, Dean, Faculty of Education, Hokkaido University
  - Presenter :** Masakane Yamashita, Vice-President, Hokkaido University
  - Discussant :** Chan-Jong Kim, Dean, College Education, Seoul National University
  - Discussant :** Yuto Kitamura, Associate Professor, Graduate School Education, The University of Tokyo
  - Discussant :** Mats Engström, Science and Innovation Counsellor, Embassy of Sweden in Tokyo
  - Discussant :** Hiroshi Matsumoto, Senior Adviser, Royal Norwegian Embassy in Tokyo
- 17:30-18:30 Snack for networking

## 30 Oct (Sun)

### 9:00 Open/ Reception starts

### 9:30-12:30 Parallel Session 2

- 9:30-12:00 Lecture 1: HESD Forum: Case Reports  
HESD Forum
- 9:55-12:00 Lecture 2: Sustainable Higher Education Schemes Learned from Nordic and  
Baltic countries Hokkaido University / Helsinki Office  
**Presenter 1:** Hiroshi Matsumoto, Senior Adviser, Royal Norwegian  
Embassy in Tokyo  
**Presenter 2:** Mats Engström, Science and Innovation Counsellor,  
Embassy of Sweden in Tokyo  
**Presenter 3:** Argo Kangro, Counsellor, Embassy of Estonia in Tokyo
- 10:30-12:30 Museum Tour 3

### 12:15-14:30 Parallel Session 3

- 12:15-13:45 Students Workshop 1: “A Challenge by College Students – Connecting  
Global Goals with Personal Ideals”/ Environmental Partnership Office  
Hokkaido
- 12:30-14:30 Museum Tour 4
- 12:15-13:45 Talk and Discussion :  
How and What Higher Education Could Contribute to SDGs  
**Presenter 1:** Osamu Abe, Professor, College of Sociology/Director, ESD  
Research Center, Rikkyo University  
**Presenter 2:** Katsunori Suzuki, Institute of Liberal Arts and Science,  
Environment Preservation Center Professor, Director of the Environment  
Preservation Center Kanazawa University  
**Moderator:** Norikazu Miyoshi, Faculty of Science and Technology,  
Tokushima University

### 14:00-16:00 Parallel Session 4

- 14:00-16:00 Students Workshop 2: “Higher Education for a Better Global Future –  
Consideration from Student Perspectives”/ Environmental Partnership  
Office Hokkaido
- 14:00-16:00 Museum Tour 5
- 14:00-16:00 Lecture 1: “Learning for Creating the Knowledge beyond Conflict -Possibility  
for Reconciliation under the Divided Society-”/ Faculty of Education  
**Presenter 1:** Ayako TAKAO, Ferris University  
**Presenter 2:** Yoko Sasaki, Nanzan University  
**Presenter 3:** Kanayo Ueda, Art NPO Koe-to-Kotoba-to-Kokoro-no-Heya  
(Room of Voices, Words and Thoughts)

**Discussant** : Tomonori Ishioka, Faculty of Education, Hokkaido University

**Moderator** : Takashi Miyazaki, Faculty of Education, Hokkaido University

14:00-16:00    Lecture 2 : Cultural Heritage and the Sustainable Development Goals.  
                         A missed opportunity?

**Presenter**: Peter Stone, UNESCO Chair in Cultural Property Protection &  
                         Peace

## 16:15-17:00    Plenary Session 2

Discussion: The Role of Higher Education for SDGs / Hokkaido University

**Moderator** : Masakane Yamashita, Vice-President, Hokkaido University

- Report from each parallel session



## Citizen Seminar & Library Tour:

### Listen, Watch and Learn! United Nations activities and Hokkaido University Library

#### Report

**Report presenter: Takeo Nagashima, Investigation Support Section, Hokkaido University Library User Support Division**

The session began with a lecture by Mr. Kiyoshi Chiba of the United Nations Information Centre (UNIC), who outlined UNIC, the current situation and PR activities of the UN, as well as the aims of UN depository libraries among other matters. The UN is stepping up its efforts to publicize its initiatives by using popular approaches like videos featuring celebrities. Mr. Chiba showed some of the videos, providing an opportunity to learn about UN initiatives through images and sound.

The lecture was followed by a library tour with members of the Hokkaido University Library staff highlighting features from Mr. Chiba's lecture. Of particular interest were the International Organization Collection Room showcasing materials published by the UN and other international organizations, and the Inazo Nitobe Collection Room featuring materials associated with Inazo Nitobe, who was in the second class that graduated from Sapporo Agricultural College (now Hokkaido University) and later served as Under-Secretary-General of the League of Nations (the forerunner of the UN). They could also observe the automated storage and retrieval system on the basement floor, among other features. In the Inazo Nitobe Collection Room, not only materials owned by the library, but also replicas of letters Nitobe had written on League of Nations letterhead were on display thanks to the cooperation of the Hokkaido University Archives.

This session attracted one student of Hokkaido University and 37 members of the general public, including many high school students, children and their parents. Many respondents to a post-event questionnaire indicated a high level of satisfaction with some respondents saying that the lecture was inspiring and provided a valuable opportunity to learn more about the UN. The library tour also provided an opportunity for lively Q&A exchanges with high school students and other participants.

Hokkaido University Library (United Nations Depository Library) plans to continue collecting UN documents and publications and make them accessible to the general public, and to hold lecture meetings and seminars to help promote outreach activities of the UN.



Seminar by Mr. Chiba



Library Tour

## Agenda

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Hokkaido University Library has been designated as a depository library for the UN. This public seminar, consisting of a lecture about the UN and a tour of Hokkaido University Library, is intended to help the public learn about the current situation of the UN and the aims of UN depository libraries. The session will begin with a lecture by Mr. Kiyoshi Chiba of the United Nations Information Centre, who will outline the goals and activities of the UN as well as talking about resources useful for learning more about the UN. The lecture will then be followed by a library tour in which the Hokkaido University Library staff will take participants to the places related to Mr. Chiba's lecture. The session will provide an opportunity to learn about the overall activities of the UN through the lecture and then deepen that knowledge at Hokkaido University Library.

## Time Schedule

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- 11:00 - 12:10    Lecture about the United Nations  
                         (speaker: Kiyoshi Chiba, United Nations Information Centre)
- 12:10 - 12:30    Library tour  
                         (guided by the Hokkaido University Library staff)

## Presenter

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CHIBA Kiyoshi  
Knowledge Management Assistant  
United Nations Information Centre

## Abstract

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- About the UN and UN activities
- Resources useful for learning more about the UN
- Significance of UN depository libraries

## Profile

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Mr. Chiba joined the United Nations Information Centre (UNIC), Japan, in 1989. He took charge of PR/media and libraries before assuming his present post of a UNIC Knowledge Management Assistant. His responsibilities include the translation of official documents into Japanese and website operation. He is a member of the Japan Association for United Nations Studies.

## Organizer

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Hokkaido University Library / UN Depository Library

## Co-host

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United Nations Information Centre

## Sponsor

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Japan International Cooperation Agency Hokkaido International Center (JICA Hokkaido),  
Sapporo International Communication Plaza Foundation, Sapporo City, Hokkaido Prefecture,  
Hokkaido Prefectural Chapter of the United Nations Association of Japan.



## **University Museum Tour: Tour of the Cool Research of Arctic at Hokkaido University**

### **Report**

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**Report presenter: Yuki Komata, URA, Research Development Section, Hokkaido University**

The Arctic Research Center Exhibition Space was newly inaugurated at Hokkaido University Museum, when it reopened after refurbishment in July 2016. Consisting of panels and displays, the exhibition space showcases the university's Arctic studies, including studies on people's lives, the land, sea and atmosphere, glaciers in Greenland, as well as research by Prof. Ukichiro Nakaya.

The University Museum Tour, under the theme of Considering Sustainable Development in a Cool-climate Region through the Arctic Region Center Exhibition Space, introduced research findings as well as issues facing the Arctic, which is undergoing some of the most significant environmental changes in the world. The purpose of the tour was to provide a venue for participants to consider (1) the relationship between the Arctic and UN Sustainability Development Goals (SDGs) and themselves, as well as (2) the roles that higher education institutions should play in the SDGS.

The tour was offered several times and was attended by participants in the International Symposium Commemorating the 10th Anniversary of the Sustainability Weeks, people of diverse backgrounds from Japan and elsewhere who learned about the tour via the Sustainability Weeks website, and others interested in the Arctic who happened to visit the museum on these days. Hokkaido University graduate students specializing in the Arctic acted as tour guides, giving an outline of the region, Arctic studies and SDGs, and also conducted a questionnaire.

The number of questionnaire respondents was 32, and included students, local residents, business people, teachers and scientists. Five were from outside Japan. Over 97% of them were highly involved in the Arctic, and 85% were highly involved in SDGs. The tour, providing lively Q&A exchanges, appeared to help them realize that the various issues facing the Arctic and the world are somehow related to themselves.

The graduate students who served as guides during the tours made all kinds of efforts to engage participants of different gender, age and nationality, sharing information about issues that are generally unknown to the general public, for example, by showing the equipment that is actually used during fieldwork.

Some participants said it was the first time for them to attend an interactive guided tour for a museum exhibition. As the organizers of the tour, we felt that an expert-led tour of the University Museum would be highly effective to promote a deeper and broader understanding of the various activities conducted at Hokkaido University.

We plan to work closely with the Institute for International Collaboration and the Hokkaido University Museum on an ongoing basis to further enhance our mutual relations.



HU student giving commentary and tour participants



Tour participants attentively listening to the commentary

## Session purposes and overview

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The Arctic Research Center Exhibition Space was established at Hokkaido University Museum in summer 2016 as a place where the diverse research of the university's specialist Arctic scholars can be highlighted. Visitors can learn about the environment, ecosystems and life/culture in the Arctic, which is undergoing some of the world's most significant climate change. The facility stimulates consideration of exactly what sustainable development involves, why it matters and what can be done to support it.

The exhibition space showcases human life (northern technologies, politics and economy), ecosystems (land and marine animals and birds), the land environment (Siberia/Alaska and the relationships between people and nature there), the sea and the atmosphere (changes in sea ice and ecosystems, modeling, satellite observation), snow and ice (glaciers in Greenland, findings from Hokkaido University research on the North Pole) and research by Prof. Ukichiro Nakaya.

A real stuffed polar bear is also on display.

## Schedule

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- 1<sup>st</sup> tour: 10:30 to 12:30, October 29 (Sat.)
- 2<sup>nd</sup> tour: 11:30 to 13:30, October 29 (Sat.)
- 3<sup>rd</sup> tour: 10:30 to 12:30, October 30 (Sun.)
- 4<sup>th</sup> tour: 12:30 to 14:30, October 30 (Sun.)
- 5<sup>th</sup> tour: 14:00 to 16:00, October 30 (Sun.)

## Meeting points

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Conference Hall 1<sup>st</sup> floor lobby, or directly come to the Museum

## Organizer

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Arctic Research Center

## Report

**Report presenter : So Kawanobe, Deputy Director, Institute for International Collaboration, Hokkaido University (MC, Plenary Session)**

The Plenary Session featured keynote speeches outlining UN initiatives to promote sustainability and also illustrating examples of and problems facing social/civic education programs in the U.S. and Germany that involved higher education institutions and researchers. The potential for developing education in collaboration with communities was also discussed in the context of these UN initiatives. These speeches were followed by a lecture about a draft vision for future sustainability education at Hokkaido University that would later be presented to the president of the university as well as specific steps to be taken to fulfill the vision in line with the UN's Sustainable Development Goals (SDGs). Based on this vision, designated discussants talked about characteristics of and problems related to the steps as well as possible solutions.



Q&A session following the keynote speech



HU Executive and Vice President Ichiro Uyeda outlining the background of the Symposium

## Time Schedule


- 14:00 - 14:10 Opening Address
- Ichiro Uyeda, Vice President, Hokkaido University
  - Noriko Suzuki, Assistant Director-General for International Affairs Ministry of Education, Culture, Sports, Science and Technology (MEXT)
- 14:10 - 14:30 Background of the Symposium -Hokkaido University in the past decade  
Contributions to SD to Date & Future-  
Ichiro Uyeda, Vice President, Hokkaido University
- 14:30 - 15:15 Invited Keynote Speech 1:  
**The Role of Higher Education in Achieving the Sustainable Development Goals**  
Kimberley D. Smith, Board of Directors, Association for the Advancement of Sustainability in Higher Education (AASHE)
- 15:15 - 16:00 Invited Keynote Speech 2:  
**A Knowledge Creation to Deal with Uncertainty in the SDGs Era**  
Ayako Takao, Associate Professor, Ferris University
- 16:00 - 16:20 Break
- 16:20 - 17:30 Lecture:  
**Future Design of Education for Sustainable Development in Hokkaido University**  
Masakane Yamashita, Vice-President, Hokkaido University

## **Background of the Symposium : Contributions to SD to Date & Future**

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Ichiro Uyeda  
Executive and Vice President, Hokkaido University  
Director, Institute for International Collaboration  
Chairperson, the Committee for Sustainability Weeks 2016

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# Contributions to SD to Date & Future

– Focusing on Education–


**Ichiro Uyeda**  
 Executive & vice-president  
 Executive Director, Institute for Int'l Collaboration  
 Chair, Executive Committee of Sustainable Weeks  
 Hokkaido Univ.

Nov 29, 2016

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## Outline

1. Purpose of the Symposium
2. Footprint of HU's Contribution
3. Harvested Fruits
4. Future Perspective

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1. Purpose of the Symposium  
 (1) UN's Campaigns




2000 2005 2015 2016 2030

2000-2015 Millennium Development Goals

2005-2014 UN Decade of ESD

2016-2030 SUSTAINABLE DEVELOPMENT GOALS 17 GOALS TO TRANSFORM OUR WORLD

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1. Purpose of the Symposium  
 (2) SDGs & Universities


**HEIs are expected to take on new actions grounded in a new set of values in the new era of SDGs.**

- ✓ What should be this "new set of values"?
- ✓ What type of environment should be prepared in order to foster new actions for education and learning?

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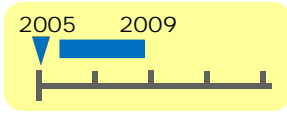
1. Footprint of HU's Contribution

- 1-1. Univ. Policy
- 1-2. Organizations
- 1-3. Major Activities
- 1-4. Collaborative Education Programs

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1-1. Policy  
 (1) Hokkaido Univ. Initiative on SD



2005 2009

An 5-year initiative to encourage the Hokkaido Univ.'s community to engage in international education & research for realizing a sustainable society



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1-1. Policy  
(2) Sapporo Sustainability Declaration (SSD)

2008 Present

G8 Univ. Summit

- The world's 1<sup>st</sup> Univ. Summit was held in Sapporo.
- 34 leading universities in the world signed the SSD.




**"Universities will serve as driving forces behind the development of a sustainable society"**

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1-1. Policy  
(3) Global Action Programme on ESD

On UNESCO's website



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1-1. Policy  
(4) Future Strategy for the 150th Anniversary



2014 2026

12-year Univ. Reform Strategy

**"To Become the Univ. that Contributes to the Resolution of Global Issues"**

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1-1. Policy  
(5) Strategy for Sustainability Education

President's Project for SD in Hokkaido Univ. Education

- ✓ To Scale-up 推進方策
- ✓ To Build networks ネットワーク構築
- ✓ To Enhance visibility 広報

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1. Footprint of HU's Contribution

1-1. Univ. Policy

1-2. Organizations

1-3. Major Activities

1-4. Collaborative Education Programs

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1-2. Organization  
(2) Office of Sustainable Campus

2008 Present

A core organization tasked with promoting campus sustainability to fulfill the SSD.




Environmental Reports 2016

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## 1-2. Organization

## (1) Center for Sustainability Science



2008 2015

*Diploma programs for grad. students to cultivate a comprehensive view on sustainable issues & solutions.*

## Graduates



- Hokkaido Univ. Inter-department Graduate Study in Sustainability (HUGS Program):
- Special coordinated training program for Sustainability Leaders & Sustainability 'Meisters' (StraSS Program):

## 1. Footprint of HU's Contribution

## 1-1. Univ. Policy

## 1-2. Organizations

## 1-3. Major Activities

## 1-4. Collaborative Education Programs

## 1-3. Activities

## (1) Sustainability Weeks

2007 Present

*A period of intensive discussion to pave the way for a sustainable society*



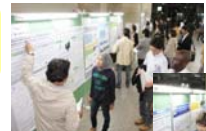
- The cumulative number of
- Programs: 331
- Participants: >175,000 (as of year 2016)

## 1-3. Activities

## (2) Sustainability Research Poster Contest

2009 2013

*To encourage students to review their research from a viewpoint of its contribution toward the realization of a sustainable society*



- 100 presenters/year from various academic filed.
- Presenters from HU and partner universities.
- Presentations are evaluated by peers and researchers those who have different expertise.

## 1-3. Activities

## (3) Global Issues Forum for Tomorrow

2010 Present

*Two-hour live internet forum for high school and college students all over the world to address global issues.*



GIFT2016  
November 27, 2016  
8:00 p.m.-10:00 p.m. (GMT+9).  
<http://sustain.oia.hokudai.ac.jp/gift/>

## 1-3. Activities

## (4) ProSPER.Net

2008 Present

*An alliance of leading universities in the Asia-Pacific region that are committed to integrating SD into grad. curricula.*



Launching Ceremony  
@ HU in 2008

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## 1. Footprint of HU's Contribution

- 1-1. Univ. Policy
- 1-2. Organizations
- 1-3. Major Activities
- 1-4. Collaborative Education Programs

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## 1-4. Educational Program (1) ESD Campus Asia

2010 ■■■ Present



ESD Campus Asia  
In School of Education, Hokkaido University, Japan  
Visiting Model: University of Tsukuba, University of Tokyo, Kyoto University, Osaka University, Nagoya University, Hokkaido University, August 10-15, 2010


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## 1-4. Educational Program (2) PARE Program

2011 ■■■ Present

*To train global leaders to change the negative PARE chain into a positive one*




Populations-Activities-Resources-Environments Chain

- Chulalongkorn Univ
- Kasetsart Univ
- Thammasat Univ
- Bogor Agricultural Univ
- Institut Teknologi Bandung
- Universitas Gadjah Mada

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## 1-4. Educational Program (3) Hokkaido Summer Institute



Lapland Univ, Helsinki Univ, Aarhus Univ, Karolinska Institute, Russian Academy of Sciences, Stanford Univ, The Univ. of Edinburgh, Cardiff Univ, Univ. of Groningen, Univ. of Amsterdam, Technical Univ. Munich, Univ. of Padua, Univ. of Pisa, Strasbourg Univ, Univ. of Barcelona, Univ. of Zambia, UCLA, Univ. of Wisconsin, Univ. of Washington Univ. of Alaska Fairbanks, Univ. of Montreal, Univ. of Alberta, KAIST, Seoul Women's Univ, Nanjing Univ, The Australian National Univ., Univ. of Technology, Sydney, Singapore Management Univ., Univ. of Singapore, Univ. of Peradeniya and more

- HSI2016
  - 71 courses
  - 107 Students &
  - 103 Researchers from overseas

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## 1-4. Educational Program (4) New Graduate Schools



Graduate School of

- ✓ Global Infectious Disease x Univ. College, Dublin
- ✓ Global Food Resources x Univ. of California, Davis
- ✓ Medical Science and Engineering x Stanford Univ.

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## 2. Harvested fruits for a decade

**As a result of responding to global calls, Hokkaido Univ. could**



- ✓ increase awareness among faculty members & students of SD
- ✓ start inter-disciplinary education programs for SD
- ✓ start internationally-collaborative education programs for SD

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### 3. Future Perspective (1) Sustainability Weeks 2.0



Hokkaido Summer Institute



+

**From Summer 2017**

*Off-curricula discussion opportunities  
with students & researchers gathering from the world to  
contribute to the resolution of global issues*



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### 3. Future Perspective (2) SDGs & Universities



**To contribute to the SDGs, we'd like to find  
through this symposium:**

- ✓ *What should be "new set of values" for  
education and learning?*
- ✓ *What type of environment should be  
prepared in order to foster new actions  
for education and learning?*



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Thank you for your attention



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## Invited Keynote Speech 1 : The Role of Higher Education in Achieving the SDGs

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Dr. Kimberley D. Smith  
Board of Directors, Association for the Advancement of  
Sustainability in Higher Education (AASHE)  
Coordinator RCE Greater Portland/Sociology Instructor  
Portland Community College Sylvania

### Abstract

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Sustainability efforts continue to grow around the world; however, achieving a sustainable future requires increasing our collective impact by aligning efforts with broader initiatives and expanding our outreach.

This presentation offers an overview of leading international and national initiatives, including the UN's Agenda 2030 and Sustainable Development Goals (SDGs) and UNESCO's Global Action Programme (GAP) on education for sustainable development. We will explore examples of how higher education institutions can engage in and enhance their impact, through tangible programs, networks, outreach efforts, and assessment tools. Outcomes will inform the implementation and assessment of these new initiatives and offer recommendations on ways to increase education, training, and public awareness within, between, and beyond higher education institutions in order to foster a more sustainable future.

### Profile

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Dr. Kim Smith received her Ph.D. in sociology from Indiana University in 2000, specializing in environmental sociology and social movements. She has taught sociology at Portland Community College (PCC) since 1996 and is the Coordinator of the Greater Portland Sustainability Education Network (GPSEN), acknowledged as a Regional Centre of Expertise (RCE) on ESD by United Nations University. She has served as PCC's Service-Learning Coordinator, Teaching Learning Center Co-Director, and Training Coordinator for PCC's Summer Sustainability Institute, and works closely with many non-profits in Portland. She represented the Association for the Advancement of Sustainability in Higher Education (AASHE) at the United Nations Rio+20 Earth Summit, in 2012, and currently serves on AASHE's Board of Directors. She serves as an International Fellow with the U.S. Partnership for ESD and led the U.S. delegation to the UNESCO World Conference on ESD, in 2014. She is committed to offering hope for a sustainable future through education and civic engagement.

# The Role of Higher Education in Achieving the Sustainable Development Goals

INTERNATIONAL SYMPOSIUM COMMEMORATING THE 10<sup>TH</sup> ANNIVERSARY OF THE  
SUSTAINABILITY WEEKS  
HOKKAIDO UNIVERSITY  
OCTOBER 29, 2016  
DR. KIM SMITH

1

## Four Inspiring Philosophies

- ❖ The Frontier Spirit
- ❖ Global Perspectives
- ❖ All-round Education
- ❖ Practical Learning



2



3



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Where is Portland, Oregon?



5



6





7



### SDG 4.7: Education for Sustainable Development (ESD)

Goal 4 - Ensure inclusive and equitable quality education and promote life-long learning opportunities for all.

4.7 - By 2030, ensure all learners acquire knowledge and skills needed to promote sustainable development, including among others through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture's contribution to sustainable development.

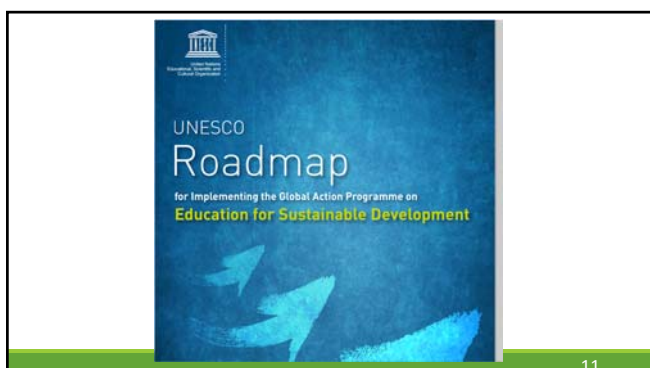
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### Ahmedabad Plan of Action (2016)

We acknowledge the **responsibility** that higher education and TVET institutions bear in the pursuit of Agenda 2030 and the sustainable development goals. Through **teaching, research, and civic engagement**, we can examine the existing cultures and structures of higher education and society, address **competencies**, utilize diverse pedagogical **strategies**, and contribute to the **transformation** of societies as co-creators of a sustainable future.

Higher education can serve as an engine of change and implementation for all 17 SDGs.

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### UNESCO's Global Action Programme on ESD Priority Action Areas

- 1 Advancing policy
- 2 Transforming learning and training environments
- 3 Building capacities of educators and trainers
- 4 Empowering and mobilizing youth
- 5 Accelerating sustainable solutions at the local level

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## Advancing Policy: Missions and Strategic Plans



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## Association for the Advancement of Sustainability in Higher Education (AASHE)



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## AASHE Campus Sustainability Hub



<https://hub.aashe.org/>

15

## Transforming Learning and Training Environments

- ✓ Operations
- ✓ Green Construction
- ✓ Energy Consumption
- ✓ Purchasing
- ✓ Waste Reduction
- ✓ Transportation
- ✓ Learning Gardens
- ✓ Hiring Practices
- ✓ Accreditation



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## Building Capacity of Educators and Trainers



- ✓ Professional Development
- ✓ Conferences
- ✓ Sustainability Curriculum Trainings
- ✓ Multi-Sector Partnerships
- ✓ Research Opportunities
- ✓ Resource Clearinghouses

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## Building Capacity of Educators and Trainers

- ✓ Green Outcomes
- ✓ Sustainability-Related Courses
- ✓ Sustainability Degrees and Focus Awards
- ✓ Applied Learning Opportunities
- ✓ Green Initiative Funds



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## Research and Social Change: Should Professors Profess?



Marc Edwards,  
Professor of Civil Engineering, Virginia Tech U  
Researched Lead Pipes in Flint, Michigan



Marcia Chatelain  
Professor of History, Georgetown University  
#FergusonSyllabus

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## Empowering and Mobilizing Youth

- ✓ Living Labs
- ✓ Course-Based Assignments
- ✓ Career and Leadership Development
- ✓ Internships
- ✓ Portfolios



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## Empowering and Mobilizing Youth

- ✓ College and Youth Networks
- ✓ Virtual Youth Conference
- ✓ Train-the-Trainer Workshops
- ✓ Service-Learning
- ✓ Sustainability Focus Awards

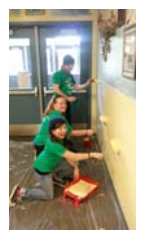


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## Accelerating Sustainable Solutions at the Local Level



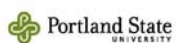
Community-Based Learning  
Civic Engagement  
Community Partnerships



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## A New Book!

Research on sustainable solutions,  
community collaboration,  
and civic engagement.



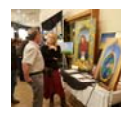
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## Outreach & Impact



How do we tell our stories?  
How do we increase our collective impact?




24

✓ On-line Multi-Choice Qs  
✓ 30 international questions  
✓ 20 local questions  
✓ Covers full scope of sustainable development

25

United Nations University  
Institute for the Advanced Study of Sustainability (UNU-IAS)




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Regional Centres of Expertise on Education for Sustainable Development



RCEs around the world

[www.rce-network.org](http://www.rce-network.org)




**GREATER PORTLAND SUSTAINABILITY EDUCATION NETWORK**  
A Regional Centre of Expertise on Education for Sustainable Development

Educate ~ Empower ~ Engage


[www.gpsen.org](http://www.gpsen.org)

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What does it mean to be a global citizen?



Commodore Matthew C. Perry



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International Friendships



Kyoto University Sustainability Symposium



Papahānaumokuākea Marine National Monument

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We're all in  
this together.



*Let's increase our  
handprints!*

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Arigatou gozaimasu! Thank you!

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Comments? Questions? Ideas?

Dr. Kim Smith  
[kdsmith@pcc.edu](mailto:kdsmith@pcc.edu)



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## Invited Keynote Speech 2 : A Knowledge Creation to Deal with Uncertainty in the SDGs Era

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Ayako Takao  
Associate Professor  
Ferris University

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### Abstract

There is ever greater uncertainty about the future in today's risk society. To achieve sustainable development in such circumstances, communities need to squarely face uncertainty and engage in the learning necessary to develop orientational knowledge, which is essential for taking the next steps toward sustainability. This speech will introduce a process of developing such knowledge, with a focus on how people learned and practically applied the knowledge to deal with uncertainty in Germany after the Chernobyl Accident, from which the risk society theory was derived.

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### Profile

Ayako Takao graduated from the Department of German Literature in the College of Humanities and Sciences, Nihon University, in addition to the Graduate School of Urban Science, Tokyo Metropolitan University, and the Graduate School of Education, the University of Tokyo. She currently serves as Associate Professor at the Faculty of Global and Inter-cultural Studies, Ferris University. Her publications include "Study by People toward Nuclear Phase-out in Germany: From Risk Awareness to Community Revitalization" (in Japanese) in "Creation of Community Learning" (co-authored, University of Tokyo Press, 2015).

# A Knowledge Creation to Deal with Uncertainty in the SDGs Era

Consideration Based on the *Orientierungswissen* (Orientational Knowledge) of People in Germany after the Chernobyl Accident

International Symposium

Commemorating the 10th Anniversary of the Sustainability Weeks

The Role of Higher Education for Sustainable Development Goals (SDGs)

October 29, 2016 (Sat.), Hokkaido University

Ayako Takao, Faculty of Global and Inter-cultural Studies, Ferris University

## Uncertainty and risks involved in EU integration

- Backlash against the bureaucrat-led management and regulations of the EU
- Issues relating to immigrants, refugees and sovereignty, border control and high unemployment rates
- Inequalities and differences between industries, regions and generations

A fragile social framework due to the increased distance from the decision-making body that resolves various problems

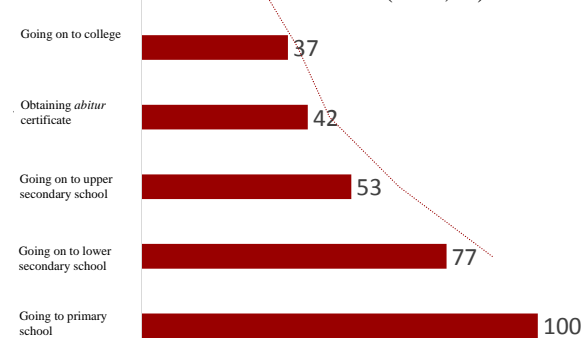
We live in a world where we must shape our future in **self-generated uncertain conditions** (Beck 2007, 26).

Start of the globalization of higher education with the Treaty on the European Union (Maastricht Treaty) in 1992

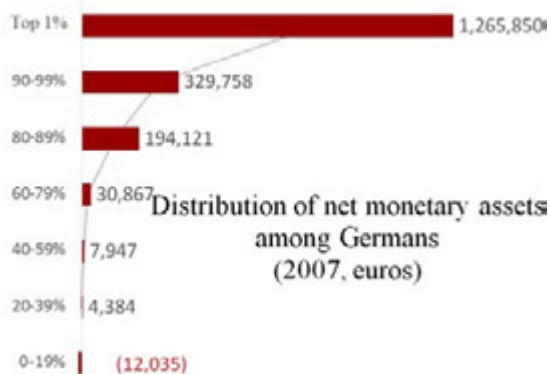
- Developing a **European dimension** in education
- Encouraging the **mobility** of students and teachers by encouraging, inter alia, the **academic recognition** of diplomas and periods of study
- Promoting **cooperation** between educational establishments (Chapter 3: Education, Article 126)

Higher education received the largest share of the budget (40%) in the EU's educational integration plan from 2007 to 2013.

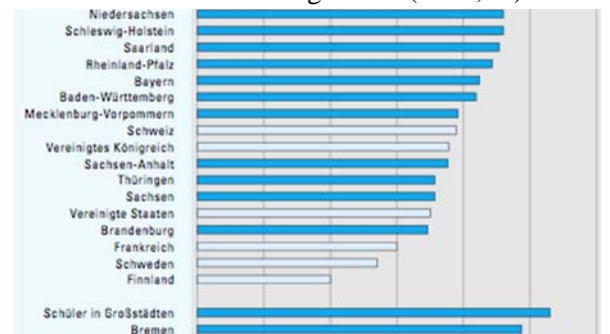
## Educational attainment in Germany (2007, %)



Kido, Yutaka, German Unification, EU Integration and Globalism (in Japanese). Toshindo Publishing, 2012



## Correlation coefficients between student performance in PISA 2000 reading literacy and socioeconomic backgrounds (2002, %)



Baumert, Stanat, Watermann 2006, Herkunftsbedingte Disparitäten im Bildungswesen S. 62



## Fiscal inequality among 16 states in Germany (2013, euros)

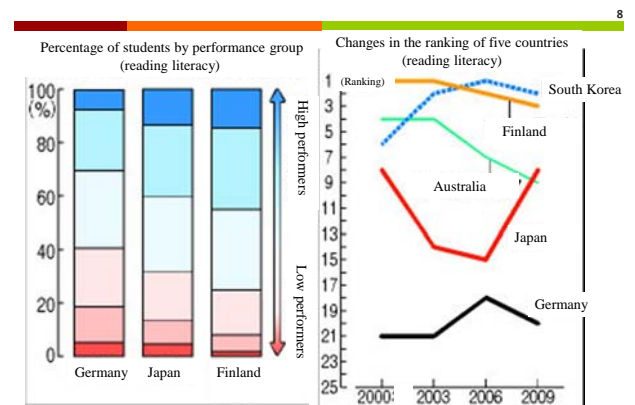
### Nur drei Länder geben

Abrechnung des Finanzausgleichs unter den Ländern im Ausgleichsjahr 2013



Quelle: Bundesfinanzministerium

Sources: Federal Ministry of Finance, Statista, Zeit Online



Source: The Asahi Shimbun article on a symposium featuring the Programme for International Student Assessment (PISA) held on December 10, 2010

## Risks of globalization

- Lack of ability to take direct control of the EU, which is becoming bloated and bureaucratized by highly educated elites, and the lack of democracy
- Germany has more people who cannot afford to participate in the global pursuit of higher educational achievement than those who can due to wealth inequality within the country.
- Nevertheless, there is equal risk in terms of livelihood, safety, the environment, etc.

More and more social experiences involve uncertainty, which in turn increases the risks people encounter in life and daily living. There is no longer a single solution to this; there are only diverse contradictory options (Bonß 1996, 173).

March 9, 2015, Hamarikyu Asahi Hall in the Asahi Shimbun Building (© dpa Picture-Alliance)

## Change in risk perception in Germany's energy policy



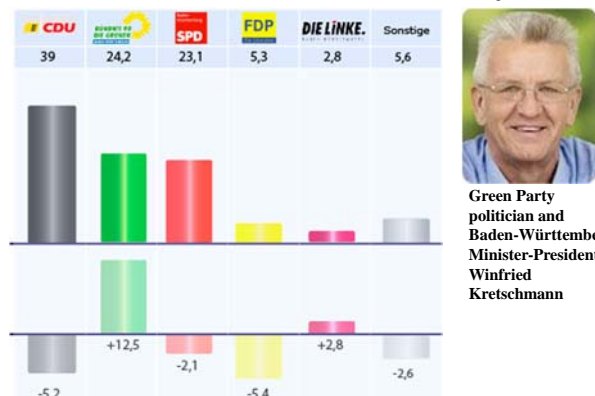
German Chancellor Angela Merkel stressed that the nuclear accident in Fukushima, which happened in a highly technological society, made her realize the involvement of unforeseen residual risks in the operation of nuclear power plants.

Chancellor Merkel at a press conference held at her official residence following a cabinet meeting on March 15, 2011



Chancellor Merkel announced a three-month moratorium on the Atomic Energy Act, shutting down the country's seven oldest reactors, and pledged to examine the possibility of Fukushima-like nuclear accidents in Germany.

On March 27, 2011, a Green Party-led government was established in the southwestern German state of Baden-Württemberg.



Source: Statistisches Landesamt Baden-Württemberg



Green Party politician and Baden-Württemberg Minister-President Winfried Kretschmann

On March 28, 2011, Chancellor Merkel conceded defeat in a press conference held at Christian Democratic Union headquarters in Berlin.

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The Baden-Württemberg election held on the previous day drove the Christian Democratic Union from power in the region for the first time in 58 years and swept the Green Party into power for the first time.

An anti-nuclear rally in Berlin on March 26, 2011

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Increasing public distrust of political parties, particularly among the youth



State-level progress of the Green Party

Why was a "culture of objection" like this developed in Germany?

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### Supplementing insufficient government information from a citizen's viewpoint



Mr. Thomas Dersee, Editor-in-chief of the German Society for Radiation Protection, and Mrs. Dersee

Examples of foods with radioactivity levels that exceeded safety standards (100 bq/kg) as found by citizens' radiation monitoring stations in the year after the accident

Jan. 26	Baby food (182)
Feb. 2	Pasta (107)
Feb. 9	Milk (187–305) Fresh cream (211–293) Hazelnuts (211–293)
Mar. 2	French herb tea (4485)
Mar. 23	Cheese (132), pasta (118)

- Public institutions monitored only fresh produce and published no detailed results, such as product or factory names.
- In then West Berlin, only about 2,500 food samples were monitored each month, and other foods entered the market without monitoring.
- In addition to measuring radiation levels, citizens' monitoring stations also published product names, places of origin, processing dates, producer numbers, manufacturer names and shop names of processed products sold at supermarkets.
- Citizens' monitoring stations recommended safety standards more stringent than those used by public institutions.
- These monitoring stations showed the legitimacy of the information that relieved people's anxiety about risks from daily life.

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### 3. Autonomous renewable energy supply

"Grass-roots" establishment of renewable energy companies in various parts of Germany

Example: Schönau Power Supply, established by a group called "Parents for a Nuclear Free Future"



Ursula Sladek a 2011 Goldman Environmental Prize recipient (Issue: sustainable development, Schönau Power Supply)  
<http://www.goldmanprize.org/2011/europe>

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### Citizens' subjective involvement in decision-making during risk-handling efforts

- Hazards are independent of people's subjective viewpoints or circumstances, whereas risk always arises from subjective decisions made to deal with uncertainty (Bonß 1995; 53).
- From individual people's viewpoints, however, **there is no room for subjective decision-making**, and **alienation from decision-making** becomes a risk associated with hazards.

What type of learning process should be used to deal with the risk of alienation from decision-making?

To ensure that the learning process will be effective, what social and psychological perspectives should be heeded?

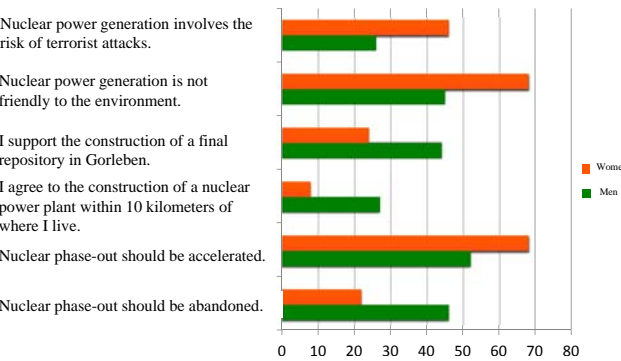
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The goal of the learning process in citizens' approach to handling risk  
Ideas for ESD and SDGs



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### Differences of opinions on nuclear power generation by gender




Greenpeace Magazine, 2005, Ergebnisse der Emnid-Umfrage zur Einstellung der Bevölkerung zur Atomenergie

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### Structural inequality in decision-making as shown by women's anxiety about the risks involved in nuclear power generation

- People who are less likely to influence **decision-making** have a keener understanding of the risks involved.
- Significant differences in risk perception by gender are attributable to the fact that the power and influence of women have been essentially restricted compared with those of men.

Risk perception ratings (by race, gender, income, educational level, etc.)



Slovic, P. (1999): Trust, Emotion, Sex, Politics, and Science: Surveying the Risk-Assessment Battlefield. In: Risk Analysis, Vol.19, No.4

## The role of the learning process in citizens' radiation monitoring activities intended to relieve their anxiety

1. Groups of people highly vulnerable to risks, such as pregnant women and mothers with young children, tend to perceive risks to be high because of their anxiety.
2. However, social structure usually prevents these people from getting involved in decision-making. Such alienation creates a vicious cycle, in which their subjective anxiety is increased and their ignorance fuels fear, causing them to continue to have high risk perceptions.
3. Citizens engaged in radiation monitoring activities to give legitimacy to their fear of structurally unequal risks, and learned more about radiation and related monitoring skills. This made them feel that they would be able to understand and control risk.
4. This feeling led to a combination of anxiety and anger, gave legitimacy to their anxiety, and empowered them to take further action.

## Social and psychological elements of the learning process

1. **Trust:** A belief felt when one justifies one's anxiety and is accepted in a community. Trust gives certainty to action under circumstances characterized by ignorance and uncertainty about the future. Uncertainty outside a system (i.e., lack of objective knowledge) can be supplemented by certainty in the system (i.e., trust) (Luhmann 1989, 16f).
2. **Tolerance of ambiguity:** Abilities to relieve one's feeling of helplessness that results from limited knowledge or a lack of information and to tolerate complex and unpredictable situations. Tolerance of ambiguity does not pursue high levels of objectivity. (Fienkel-Brunswick 1949).
3. **Feelings:** Cognitive judgments are closely connected to feelings, and people try to strike a balance between them. The realization that one can understand and control risk helps further develop one's problem-solving ability and the ability to take action. A rhetoric of warning results in limited actions.

## Orientalional knowledge (*orientierungswissen*) as a goal of the learning process

1. The learning process that enhances the ability to deal with some uncertainty in consideration of interactions **between different stakeholders** and complex combination of situations leads to the development of **orientational knowledge**, which defines the range of daily or academic activities in society.
2. Orientalional knowledge represents the ability to draw out effective information to the greatest extent possible to solve problems even in incomplete, uncertain situations without a feeling of helplessness and to determine the next course of action that gives a sense of direction. This is as essential as objective expertise for a risk society.
3. Orientalional knowledge can be developed only in a **learning environment that takes into consideration the personal and social perspectives** of stakeholders participating in the communication process.

Evers, A., Nowotny H. (1987). Über den Umgang mit Unsicherheit. Die Entdeckung der Gestaltbarkeit von Gesellschaft. Frankfurt: Suhrkamp

## Subsequent Changes in Germany's Science and Technology Policy

1. Review of regulatory science in consideration of highly vulnerable groups
2. Increase in the number of stakeholders in risk communication
3. Launch of interdisciplinary socio-ecological research (*Spezialökologische Forschung*) with funds from the Federal Ministry for Education and Research
4. Collaboration of diverse people based on their knowledge gained from everyday experiences

Schultz, I. (2006): Frauen aktiv gegen Atomenergie – Spuren in der Wissenschaft. In: genanet, Röhr, U.: Frauen aktiv gegen Atomenergie – wenn aus Wut Visionen werden.

## SDGs that aim to reach the “furthest behind” first

- This is an approach that aims to leave no one behind by ending poverty in all its forms and dimensions and by ensuring that all people will have opportunities for self-realization while living in dignity, equality and a healthy environment.
- For MDGs, the approach adopted to halve poverty was to begin where tasks would be implemented relatively easily and efficiently. In contrast, the approach to SDGs is to reach the furthest behind first – namely, to reach those suffering the most first.
- This is based on our failures to prevent the outbreak of Ebola and the rapid rise of ISIS, and from the lesson we learned that the people left behind can pose a serious threat to the world.

[http://www.unic.or.jp/activities/economic\\_social\\_development/sustainable\\_development/2030agenda/](http://www.unic.or.jp/activities/economic_social_development/sustainable_development/2030agenda/)

## Ideas for SDGs and ESD based on orientational knowledge

### ESD competencies

- Essential subjects and areas of study for an uncertain future **involve more than one branch of knowledge**. ESD competencies enable people to outline **unsustainable problems to be resolved** in an appropriate manner.
- Learning environments are created in consideration of **personal and subjective interests** (e.g., health) rather than by dividing subjects of study based on objectively classified disciplines.

### Approach to SDGs

- The approach encourages the furthest behind, who are alienated from decision-making, to **feel that they are safe and able to control risk** through properly dealing with **emotional risk perceptions**.
- The need to properly deal with the risk perceptions of people is derived from the goal of **fostering the abilities of people and society to take action** to extricate themselves from poverty based on **orientational knowledge** rather than the divisive viewpoint of “aid donors vs. recipients.”

(Transfer-21 Programme: ESD Competencies (in Japanese). Akashi Shoten. 2012. p. 26)

- Beck, U. (2007) Weltrisikogesellschaft. Frankfurt am Main: Suhrkamp
- Bonß, W. (1996) Die Rückkehr der Unsicherheit. Zur gesellschaftlichen theoretischen Bedeutung des Risikobegriffs. In: Banse, G. (Hrsg.) Risikoforschung zwischen Disziplinarität und Interdisziplinarität. Von der Illusion der Sicherheit zum Umgang mit Unsicherheit. Berlin: edition sigma, S. 165-184
- Baumert, Stanat, Watermann (2006), Herkunftsbedingte Disparitäten im Bildungswesen S. 62
- Evers, A., Nowotny H. (1987). Über den Umgang mit Unsicherheit. Die Entdeckung der Gestaltbarkeit von Gesellschaft. Frankfurt: Suhrkamp. S.12-24
- Schultz, I. (2006): Frauen aktiv gegen Atomenergie – Spuren in der Wissenschaft. In: genanet, Röhr, U.: Frauen aktiv gegen Atomenergie – wenn aus Wut Visionen werden.
- Kido, Yutaka (2012), German Unification, EU Integration and Globalism (in Japanese). Toshindo Publishing
- Takao, Ayako (2015), Study by People toward Nuclear Phase-out in Germany (in Japanese). In: "Creation of Community Learning." University of Tokyo Press. p.295-318
- Transfer-21 Programme (2012), ESD Competencies. Akashi Shoten. p.26

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**Thank you.**

Ayako Takao, Faculty of Global and Inter-cultural Studies, Ferris University  
Email: takao@ferris.ac.jp



## Future Design of Education for Sustainable Development in Hokkaido University

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Masakane Yamashita  
Vice-President  
Hokkaido University

### Abstract

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As stated in its diploma policy, Hokkaido University promotes understanding and appreciation of diverse cultures and aims to prepare students to play creative and leading roles to forge a brighter future for humanity. It is self-evident that this includes equipping students with the attitudes, skills and knowledge that education for sustainable development (ESD) aims to develop. However, the University has not put in writing its initiatives to contribute to the achievement of sustainable development, and therefore needs to more actively promote them. Against such a background, the Sustainability Education Research Project Team was established on the initiative of the Hokkaido University President to examine specific measures for future sustainability education at the University. This lecture is intended to share several proposals the Project Team has discussed, including: (1) clearly stating in its diploma policy that the University aims to foster individuals capable of helping overcome issues to achieve global sustainable development; (2) clarifying in syllabuses how the courses relate to sustainable development goals (SDGs); (3) opening new general education courses on sustainable development; and (4) improving information networks concerning sustainable development. The Project Team hopes to propose feasible, effective measures to the President by further enhancing those proposals based on input from symposium participants from the University and elsewhere.

### Profile

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Chief, President's Project Team for Sustainable Development in Hokkaido University Education  
Vice-President, Hokkaido University  
Professor, Faculty of Science  
Vice-Principal, Nitobe School



北海道大学

北海道大学  
サステナビリティ・ウィーク10周年記念  
国際シンポジウム  
～持続可能な開発目標(SDGs)に貢献する高等教育のあり方～

## 北海道大学における サステナビリティ教育の将来像

Future Design of Education for Sustainable Development  
in Hokkaido University

北海道大学サステナビリティ教育検討プロジェクトチーム 座長  
北海道大学副学長  
山下正兼

Masakane YAMASHITA  
Chief, President's Project Team for Sustainable Development in Hokkaido  
University Education / Vice-President, Hokkaido University

2016.10.29

北海道大学近未来戦略150  
Future Strategy for the 150<sup>th</sup> Anniversary of Hokkaido University



2026年に創設150年を迎えるにあたり  
世界の課題解決に貢献する北海道大学へ  
Contributing Towards the Resolution of Global Issues

Hokkaido University profoundly acknowledges the importance of the role that a university should play in society. We have decided to boldly and steadily move forward with reforms based upon the basic philosophies we have held ever since our founding. Our long-term objective is to become "a Hokkaido University that contributes to the resolution of global issues".

研究: 様々な課題を解決する世界トップレベルの研究を推進  
教育: 国際社会の発展に寄与する指導的・中核的な人材を育成  
Education: Hokkaido University will produce graduates who will play a leading role in contributing to the development of a global society.  
社会貢献: 学外との連携により、知の発信と社会変革を提言  
管理運営: 総長のリーダーシップの下、持続的な発展を見据えた大学運営  
情報発信: 世界に存在感を示す

1



サステナビリティ教育検討プロジェクトチーム  
President's Project Team for Sustainable Development in Hokkaido University Education

2

### 設置の趣旨

本学では、2008年度に開催されたG8大学サミットにおいて採択された「札幌サステナビリティ宣言」に端を発し、サステナビリティ学教育研究センターの設置、サステナブルキャンパス推進本部の設置、サステナビリティ・ウィークの実施など、「持続的発展(Sustainable Development: SD)」に関する教育・研究活動を推進してきた。

2016年3月にサステナビリティ学教育研究センターが廃止された。また、社会情勢が大きく変化する中、本学が取り組むべき「サステナビリティ戦略」について、あらためて検討が必要となった。北海道大学創設150年に向け、本学が持続可能な発展を遂げ、世界の課題解決に貢献する人材を育成するためには、「持続的発展のための教育」(Education for Sustainable Development: ESD)の推進が不可欠である。そこで「サステナビリティ教育検討プロジェクトチーム」が設置され、サステナビリティ教育の在り方について検討を開始した。

### 任務

次の事項について検討し、総長に答申すること。

- ・サステナビリティ教育を推進する方策
- ・サステナビリティ教育に関するネットワークの構築
- ・サステナビリティ教育の学内外への積極的な発信

北海道大学におけるサステナビリティ教育の内容には踏み込まない。  
本学におけるサステナビリティ教育のシステム(枠組み、運営、発信など)を検討する。

サステナビリティ教育検討プロジェクトチーム  
President's Project Team for Sustainable Development in Hokkaido University Education

3

### 構成員 Members

座長 副学長(理学研究院) Chief, President's Project Team for Sustainable Development in Hokkaido University Education/ Vice-President, Faculty of Science	教授 Professor	山下正兼 Masakane YAMASHITA
総長補佐(文学研究科) Advisor to the President Graduate School of Letters	教授 Professor	神和順 Kazuyori YUHAZU
文学研究科 Graduate School of Letters	教授 Professor	瀬名波栄潤 Eijun SENAHARA
高等教育推進機構 Institute for the Advancement of Higher Education	教授 Professor	細川敏幸 Toshiyuki HOSOKAWA
地球環境科学研究所 Faculty of Environmental Earth Science	教授 Professor	谷本陽一 Yoichi TANIMOTO
サステナブルキャンパス推進本部 Office for a Sustainable Campus	特定専門職員 Coordinator	池上真紀 Maki IKEGAMI

### 会議 Meetings

予備会、3/28; 本会議 1<sup>st</sup>、5/11; 2<sup>nd</sup>、7/22; 3<sup>rd</sup>、8/19; 4<sup>th</sup>、9/7; 5<sup>th</sup>、9/30; 6<sup>th</sup>、10/14

本講演の趣旨 The Aim of This Talk

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### サステナビリティ教育検討プロジェクトチーム

サステナビリティ教育検討プロジェクトチームは北海道大学総長のイニシアチブにより設置された。その任務は本学におけるサステナビリティ教育の現状と問題点を整理した上で、総長へ提言する将来構想の素案を提示することである。本講演ではプロジェクトチームが検討した素案に基づき、SDGsに貢献する大学に相応しい構想とはどのようなものかについて、指定討論者ならびに会場の参加者と共に議論を行う。

### President's Project Team for Sustainable Development in Hokkaido University Education

The "President's Project Team for Sustainable Development in Hokkaido University Education" was established as an initiative by the president of Hokkaido University. The team will summarize the current state and issues of the University's sustainability education and then present a draft proposal to the president for future strategy and action plan for sustainability education. Based on the team's presentation, designated commentators and session attendees will discuss the appropriate initiatives for universities that aim to contribute to SDGs.

北海道大学で開講されているサステナビリティに関する科目  
Sustainability-related Classes in Hokkaido University

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平成26、27年度 サステナビリティに関する科目の割合は 8~11%  
FY2014 and FY2015 The ratio of sustainability-related classes is 8-11%

年度	学部 Undergraduate	大学院修士課程 Postgraduate (Master level)	博士・法科・専門職大学院 Postgraduate (Doctoral level)	合計 Total	該当率 Ratio
平成26年度 FY2014	425科目	319科目	35科目	779科目	8%
平成27年度 FY2015	415科目	343科目	88科目	846科目	11%

北海道大学では相当数のサステナビリティに関する科目が開講されている。  
Many sustainability-related classes have already opened in Hokkaido University.

ASSC Sustainability-related classes are identified in our Assessment System for Sustainable Campus, Hokkaido University.  
サステナブルキャンパス推進本部 調査データ

サステナビリティ教育に関する将来構想案  
Proposal for Future Strategy and Action Plan for Sustainability Education

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### 1. 北海道大学学位授与の方針 Modification of Diploma Policies

ディプロマ・ポリシーに「人類社会の持続的発展に貢献できる人材の育成」を明記  
Declaration of the production of graduates who will contribute to the sustainable development of the human society in diploma policies.

### 2. SDGsに対応したシラバス New Syllabus and Registration System

シラバスで各開講科目と持続可能な開発目標(SDGs)との対応を示す  
Clarification of the correlation between classes and SDGs in syllabi.

### 3. ESDプログラムの開設 New ESD Program

全学教育に持続的発展に関する新たな教育プログラム(ESD)を開設する  
Establishment of a new ESD program in the Core Curriculum (General Education Courses).

### 4. 組織整備 New Organization for Sustainable Future

サステナビリティに関する活動の統合と全学展開を可能とする組織を整備する  
Setup of a new organization in which the sustainability-related activities are unified and propagated to the whole university.

北海道大学

1a. 北海道大学学位授与の方針 Modification of Diploma Policies

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北海道大学の基本理念  
Basic Philosophies of Hokkaido University

北海道大学における開講科目区分  
Courses in Hokkaido University

北海道大学で育成する人材  
Human Resource Fostered in Hokkaido University

持続可能な社会の重要性を理解する。  
Understanding the significance of sustainable society.  
持続可能な社会に貢献できる人材として活躍する。  
Contributing to the sustainable development of the human society.

北海道大学

1b. 北海道大学学位授与の方針 Modification of Diploma Policies

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学士課程ディプロマ・ポリシー 現行文 (Present Undergraduate Diploma Policy)

北海道大学の学士課程教育は、世界における市民としての自覚をもって社会に参加できること、専門の基礎となる学問やコミュニケーションの方法を身につけること、専門分野を広い視野の下に学ぶことをめざした教育を進めています。それを通じて、国際的に通用する高度な学問的素養をもち、的確な判断力とリーダーシップを発揮する人材を育成します。すなわち、本学は卒業生に対し、多様な文化を理解し、人類の未来に寄与する創造的かつ指導的役割を担う人材であることを求めます。

Hokkaido University promotes undergraduate education which aims students to be socially involved with the awareness of being a world citizen, to acquire communication skills and basic knowledge for a certain discipline, and to study a specialized field from a broader perspective. Through the provision of education, we produce quality graduates with academic sophistication at an international standard and capacity to provide good judgement and leadership. In other words, we expect our graduates to assimilate diverse cultures and take a creative and leading role in contributing to the future of humanity.

北海道大学

1c. 北海道大学学位授与の方針 Modification of Diploma Policies

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学士課程ディプロマ・ポリシー 修正案 (Suggested Undergraduate Diploma Policy)

北海道大学の学士課程教育は、世界における市民としての自覚をもって社会に参加できること、専門の基礎となる学問やコミュニケーションの方法を身につけること、専門分野を広い視野の下に学ぶことをめざした教育を進めています。それを通じて、国際的に通用する高度な学問的素養をもち、的確な判断力とリーダーシップを発揮する人材を育成します。すなわち、本学は卒業生に対し、多様な文化を理解し、創造的かつ指導的役割を担い、人類社会の持続的発展に貢献できる人材であることを求めます。

Hokkaido University promotes undergraduate education which aims students to be socially involved with the awareness of being a world citizen, to acquire communication skills and basic knowledge for a certain discipline, and to study a specialized field from a broader perspective. Through the provision of education, we produce quality graduates with academic sophistication at an international standard and capacity to provide good judgement and leadership. In other words, we expect our graduates to assimilate diverse cultures and take a creative and leading role in contributing to the sustainable development of the human society.

北海道大学

1d. 北海道大学学位授与の方針 Modification of Diploma Policies

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大学院課程ディプロマ・ポリシー 現行文 (Present Graduate Diploma Policy)

北海道大学大学院は、本学が掲げる4つの基本理念の下に、専攻分野における高度な教育研究と先端・学際的な教育研究を行うことにより、高度な専門性に加えて、広い視野ならびに高い倫理観を備え、人類社会の持続的発展に貢献する高度な専門家および職業人の養成を教育目標としています。

また、大学院の各課程において学位を授与される者は、次に掲げる学識・能力を身に付けている必要があります。

中略

上記の教育目標を達成し、各課程で身に付けることが必要な学識・能力を修得させるため、各研究科等において、各々の教育目標に即した学位授与方針を定めています。そして、当該方針に基づく教育課程を編成・実施し、各研究科等で求める学力、能力、資質を満たす認められる者に対し、修士もしくは博士の学位または専門職学位を授与します。

Graduate schools of Hokkaido University conduct advanced education research in specialized fields as well as leading-edge and interdisciplinary education research under our four basic philosophies. Through promoting the education research, our educational goals have been determined as to train advanced experts and professionals who can contribute to the sustainable development of the human society with high level of expertise, a wide perspective and high ethical standards.

Students are required the following educational attainment and capability to receive a postgraduate degree from the University at the completion of their education program.

北海道大学

2a. SDGsに対応したシラバス New Syllabus and Registration System

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SUSTAINABLE DEVELOPMENT GOALS  
17 GOALS TO TRANSFORM OUR WORLD

1 NO POVERTY  
2 ZERO HUNGER  
3 GOOD HEALTH AND WELL-BEING  
4 QUALITY EDUCATION  
5 GENDER EQUALITY  
6 CLEAN WATER AND SANITATION  
7 AFFORDABLE AND CLEAN ENERGY  
8 DECENT WORK AND ECONOMIC GROWTH  
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE  
10 REDUCED INEQUALITIES  
11 SUSTAINABLE CITIES AND COMMUNITIES  
12 RESPONSIBLE CONSUMPTION AND PRODUCTION  
13 CLIMATE ACTION  
14 LIFE BELOW WATER  
15 LIFE ON LAND  
16 PEACE, JUSTICE AND STRONG INSTITUTIONS  
17 PARTNERSHIPS FOR THE GOALS

北海道大学

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2b. SDGsに対応したシラバス New Syllabus and Registration System

北海道大学

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2c. SDGsに対応したシラバス New Syllabus and Registration System

シラバス登録画面

SDGs との対応をシラバスへ登録  
Clarification of the Correlation between Classes and SDGs in Syllabi

北海道大学

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2d. SDGsに対応したシラバス New Syllabus and Registration System

シラバス検索画面

SDGsをキーワードにシラバス検索が可能  
New System Enables to Search Syllabi by SDGs' Keywords

北海道大学

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3a. ESDプログラムの開設 New ESD Program

- 独立した全学教育のコースとして設計 Planned a course in the Core Curriculum
- 1～2年で修了 Complete within freshman or sophomore
- 多くは既存の科目で併用可能 Elective course including existing lectures
- 合計10単位を修了要件 Require 10 credits
- 必修科目(2単位) サステナビリティ概論 文系理系が融合した講義 / 全体像がわかる Compulsory course (2 credits) Introduction to sustainability studies: Can view global image from arts, humanity and science
- 選択科目(以下の全学教育科目から8単位) Elective (Select 8 credits from followings)
  - 一般教育演習 Freshman seminar
  - 環境と人間 Environment and people
  - 社会の認識 Perceptions of society
  - 科学・技術の世界 The world of science and technology
  - フィールド型合宿授業(年2回、サステナビリティ概論受講が受講条件) Training camp in field (Twice per year, Open for students completed the Introduction to sustainability studies)

北海道大学

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4a. 組織整備 New Organization for Sustainable Future

総長 President

総長直轄の組織 President-directed Organization

現状 Present Situation

教育・研究 Education and Research

キャンパス整備 Sustainable Campus

社会貢献 Outreach

広報・情報発信 Public Relations

本学のサステナビリティ活動 Sustainability-related Activities in Hokkaido University

総長直轄の担当組織を設置し、現状、様々な組織で行われているサステナビリティに関する活動を統合、全学展開する。  
We propose to set a new president-directed organization, in which the sustainability-related activities presently performed in various organizations are unified and propagated to the whole university.

北海道大学

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4b. 今後の展開と可能性 Sustainable Future We Believe in

総長直轄の組織の検討課題

サステナビリティにおける大学ガバナンス: 事業戦略とアクションプランづくり  
全構成員が持続可能性の問題を考え、意識する

教育・研究 Education and Research	学部・大学院でのサステナビリティ教育プログラムの確立 実践的教育の実施 イノベーション研究・実践 世界のサステナビリティ研究の実践拠点
キャンパス整備 Sustainable Campus	アカデミック・プランを支えるキャンパス整備 社会実験の場としてのキャンパスの活用
社会貢献 Outreach	長期的視野に立って社会のニーズを分析 北海道の地域課題を捉え「持続可能な北海道」に貢献 札幌サステナビリティ宣言(SSD)実現の牽引
広報・情報発信 Public Relations	教育研究活動をリオ宣言やSDGs等を援用して国際社会へ発信 基本理念および近未来戦略を世界にPR 広報拠点、情報窓口機能、総合博物館の活用 サステナブル人材育成のための大学賞

平成27年9月サステナビリティに関する提案  
(総務企画部ほか)より抜粋

北海道大学



御静聴ありがとうございました。  
御意見・御批判をいただけると幸いです。

Thank you for your attention.  
We appreciate your comments and criticism.

## 北海道大学で開講されているサステナビリティに関する科目

### 学部科目

#### 26, 27年度ともに開講されているもの（抜粋）

100年後の未来学  
「大人になる」とジェンダー  
2030年エレクトロニクスの旅  
インフラストラクチャーの世界 ― 古代ローマから現代まで ―  
グローバル化と環境の社会学  
ヒガム学入門  
海のふしぎ ― 海と人との関わり ―

#### 26年度のみ開講されているもの（抜粋）

地球に暮らす～生活と土木・建築技術の関わり～  
ソ連前線とその後の世界  
ホルモンの生物学  
環境・美学・芸術

#### 27年度のみ開講されているもの（抜粋）

アジア政治論  
フェミニズム法学  
ヒトとは何か：人類学入門  
観光創造学の世界に触れる

## 北海道大学で開講されているサステナビリティに関する科目

### 大学院（修士）科目

#### 26, 27年度ともに開講されているもの（抜粋）

Hydrogeology (地下水保全工学E)  
PARE基礎論Ⅰー人口・活動・資源・環境の連環  
インバウンド・ツーリズム論演習  
エネルギー・メディア変換材料科学特論  
リサイクルシステム特論  
温暖化影響論  
家畜生産生物学総論

#### 26年度のみ開講されているもの（抜粋）

Urban Planning (都市環境デザイン学E)  
Water Quality Risk and Control (水・物質循環工学E)  
サステナビリティ学総論Ⅰ 地球システムと人間の関わりと持続性  
サステナビリティ学総論Ⅴ サステナビリティ学最前線  
メディア文化特論 メディア、そして文化

#### 27年度のみ開講されているもの（抜粋）

アイヌ・先住民研究特別講義Ⅰ  
フィールド環境情報学  
環境適応学総論  
教育社会特論 職業能力形成特論2015  
極東・北極圏の環境・文化・開発ーRUE3概論

## 北海道大学で開講されているサステナビリティに関する科目

### 科目の選定方法

#### 156の検索キーワード一覧

シラバスキーワード検索でヒットした科目を  
選定

1 LCA	31 環境化学
2 エコマテリアル	32 環境改善
3 エネルギー	33 環境管理
4 エネルギー材料	34 環境技術
5 エネルギー資源	35 環境教育
6 エネルギー変換	36 環境経済
7 グリーンツーリズム	37 環境計測
8 グローバル・イシュー	38 環境材料
9 サステイナブル・ミストリー	39 環境社会
10 ジェンダー	40 環境修復
11 ツーリズム	41 環境浄化
12 バイオマス	42 環境政策
13 バイオ燃料	43 環境工学
14 マイノリティー	44 環境設計
15 まちづくり	45 環境調和
16 ライフライン防災	46 環境動態
17 リサイクル	47 環境食料・環境
18 レクリエーション	48 環境保全
19 温暖化	49 環境法
20 科学コミュニケーション	50 観光
21 火山災害	51 気候
22 海洋環境	52 気候変動
23 海洋資源	53 気象
24 開発・援助	54 環境・環境
25 環境	55 環境形成
26 環境デザイン	56 環境生態
27 環境モデリング	57 経済思想
28 環境リスク	58 芸術・芸術
29 環境影響評価	59 建築環境
30 環境衛生	60 建築計画

## 北海道大学で開講されているサステナビリティに関する科目

61 交通工学	91 食料自給	121 地震災害	151 民俗学
62 公害	92 食料政策	122 地方自治	152 民族学
63 公共政策	93 森林教育	123 高層バイオマス	153 木質バイオマス
64 再生可能	94 水質汚染	124 低炭素社会	154 有用遺伝子組み換え
65 再生可能エネルギー	95 水工学	125 低炭素社会	155 緑化
66 災害リスク評価	96 水収支	126 低炭素社会	156 緑地管理
67 参加型まちづくり	97 水環境教育	127 電力系統工学	
68 施設園芸	98 生育環境	128 都市環境	
69 資源環境バランス	99 生態・環境	129 都市環境デザイン	
70 資源経済	100 生態系	130 都市経済	
71 資源循環システム	101 生態系サービス	131 都市計画	
72 資源循環	102 生物多様性	132 都市農村交流	
73 持続可能	103 生物分解物質	133 土壌	
74 自然エネルギー	104 先史・歴史	134 土地利用	
75 自然環境	105 多文化教育	135 土木環境	
76 自然共生	106 太陽地球システム	136 土木計画	
77 社会システム工学	107 炭素収支	137 燃料電池	
78 社会思想	108 地域力バランス	138 廃棄物	
79 社会集団	109 地域環境・災害	139 比較民俗学	
80 社会人類学	110 地域教育	140 復旧・復興工学	
81 社会組織	111 地域居住	141 物質循環	
82 住居環境	112 地域景観	142 文化遺産	
83 住居計画	113 地域経済	143 文化財	
84 住生活	114 地域計画	144 文化政策	
85 省エネルギー	115 地域政策	145 文化政策	
86 省エネルギー技術	116 地域防災	146 文化人類学	
87 省資源	117 地域防災計画	147 保全	
88 橋生	118 地域防災政策	148 保全修復技術	
89 橋脚工学	119 地域環境	149 保全生態学	
90 食と環境	120 地産地消	150 保存・再生	

## サステナビリティ活動ポータルサイト



5.2 教育プログラムによる年度別修了者数、統計資料等

本センターが提供した教育プログラムに関係する修了証を取得した学生数を以下に示す。

修了年度	HUIGS	StraSS 環境リーダー	StraSS 環境マイスター	履修証明 プログラム	SSC
平成 20 年 3 月	8				
平成 20 年 9 月	8				
平成 21 年 3 月	14				10
平成 21 年 9 月	3				0
平成 22 年 3 月	14	0			13
平成 22 年 9 月	5	0			0
平成 23 年 3 月	19	2			3
平成 23 年 9 月	8	1			5
平成 24 年 3 月	18	8	0	3	8
平成 24 年 9 月	4	2	0	1	3
平成 25 年 3 月	12	8	0	6	7
平成 25 年 9 月	2	2	1	2	3
平成 26 年 3 月	20	12	0	9	6
平成 26 年 9 月	5	4	0	3	0
平成 27 年 3 月	25	10	0	6	7
平成 27 年 9 月	6	3	0	3	3
平成 28 年 3 月	14	8	0	6	4
計	185	60	1	39	72

CENSUS  
活動成果報告書  
(2016.3.31)より

基本方針

- サステイナビリティー学教育研究センターのような教育組織等を新たに作るのではなく、現行の科目を上手く利用して、本学においてサステイナビリティー教育を積極的に実施していることを外に向かってアピールする具体的方策を練る。
- ディプロマポリシー等に、北大(学部並びに大学院)での教育の柱の一つが「サステイナビリティー」であることを明確に示す。
- 現行のサステイナビリティーに関連する科目を束ねて適切な名称を付した枠を作る。例えば、全学教育においては、サステイナビリティーに関連する科目が外から見える形になるように、全学教育科目の授業区分を修正あるいは変更する。各学部で実施されているサステイナビリティーに関連する科目は、第三期中期目標期間中に実施予定となっている「学部共通授業科目」に組み込み、サステイナビリティー教育枠を可視化する。大学院共通授業科目の①特別科目群(社会的要請に対応するため、大学が戦略的に開講する科目)として開講する、など。
- サステイナビリティー科目の必修化や副専攻化など、さらに進んだ教育システムについては、取組実績を踏まえた上で新たに検討することとし、本チームでは具体的な方策について扱わない。
- サステイナビリティー科目の見える化に加え、サステイナビリティーに関連する科目を担当する教員や、SDGsに関する研究に関わっている教員が情報共有できるネットワークの構築を検討する。例えば、サステイナビリティーに関連する授業の紹介、研究論文が公表された場合の案内、関連研究・教育集会の案内などを公表できるサイトを構築し、北大におけるサステイナビリティー関連情報を一元化することで、学外から本学の取組を見えやすくする。



## Chair

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Toru Onai  
Dean, Faculty of Education, Hokkaido University Professor  
Faculty of Education  
Hokkaido University

## Designated Discussant 1

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Chan-Jong Kim  
Professor of Earth Science Education and Dean of  
College of Education  
Seoul National University

## Profile

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Chan-Jong Kim is Professor of Earth Science Education and Dean of College of Education, Seoul National University. He received doctoral degree from the University of Texas at Austin in 1989. He had served as Chairperson of International Geoscience Education Organization (IGEO) during 2006-2010. He also served as Chairperson of Advisory Committee of International Earth Science Olympiad (IESO) during 2004-2010. His area of research interests are science learning in informal settings and modeling in school science classes with sociocultural perspective.

## Comments on Future Design of ESD in HU

**Chan-Jong KIM**  
Prof. Earth Science Education  
Dean, College of Education, SNU



1

## Sustainable Development (SD)

- "Meeting the needs of the present without compromising the ability of future generations to meet their own needs."  
(Brundtland report, 1987)
- Three dimensions of SD (Complex and integrated)
  - economic
  - social
  - Environmental
- Need integrated approaches in Social science, Humanities & Arts as well as Science & Engineering
- Education for Sustainable Development
  - 2005-14 "Decade of Ed for SD" (UN 2003)
  - IAU, UNESCO, UNEP/GUPES

2

## Focus of discussion

- Coordinated, whole-institution approach
  - Leadership, Plan, Implementation, Participation, Assessment
- Academic Staff Development
  - Transform curricula and pedagogy towards SD
- Overcome disciplinary boundaries
- Empowering and mobilizing youth

3

## HU Status

- SD Initiative continuity for last 10 years
- Many SD-related courses:
  - 8% (2014)
  - 11% (2015)
- University wide SD week
- Much more

4

## Coordinated, Whole-institution Approach

- HU Proposal
  - Established "**President's Project Team**" for SD in HU, review status and plan for future
  - Establish "**President-directed Organization**"
  - Plan for every level (Diploma, syllabus & registration, Program, and organization)
  - Aligning to UN 17 SDGs

5

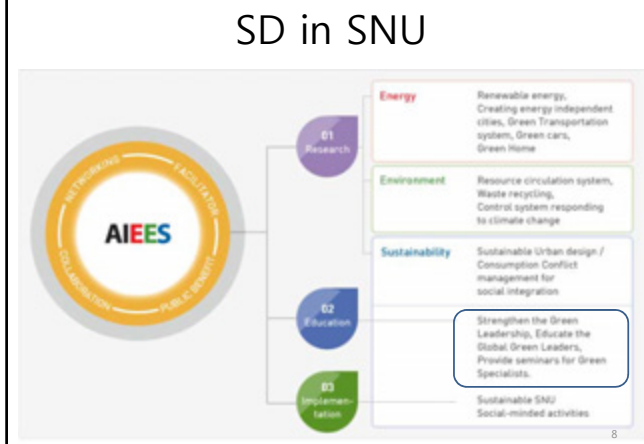
## Coordinated, Whole-institution Approach

- Leadership: Transformative
- Plan: Systematic
  - Core curr., Elective courses, Training camps
  - Assessment and feedback (need to be visible)
- Challenges
  - Staff development
  - Overcome disciplinary boundaries
  - Empowering and mobilizing youths

6

**AIEES** Asian Institute for  
Energy, Environment &  
Sustainability  
아시아에너지환경지속가능발전연구소

- 7



## 9

## 10

## 12

- 13



## Designated Discussant 2

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Yuto Kitamura  
Associate Professor at Graduate School of Education  
The University of Tokyo  
Adjunct Associate Professor at Integrated Research System for  
Sustainability Science  
The University of Tokyo

### Profile

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Dr. Yuto Kitamura is Associate Professor at Graduate School of Education and Adjunct Associate Professor at Integrated Research System for Sustainability Science, The University of Tokyo. He graduated from Keio University and received his M.A. and Ph.D., both in education, from University of California, Los Angeles (UCLA). He had worked at Education Sector of UNESCO in Paris and taught as Associate Professor at Nagoya University and Sophia University. He was Fulbright Scholar at the George Washington University, Visiting Professor at the University of Dhaka in Bangladesh, and is currently Special Advisor of the Rector at Royal University of Phnom Penh in Cambodia. He is specialized in comparative education and educational development studies. He has been conducting researches extensively on education policy in developing countries in Southeast Asia, with particular focus on Cambodia. His recent publications include: *The Political Economy of Schooling in Cambodia: Issues of Quality and Equity* (co-editor, Palgrave Macmillan), *Emerging International Dimensions in East Asian Higher Education* (co-editor, Springer) and *The Political Economy of Educational Reforms and Capacity Development in Southeast Asia: Cases of Cambodia, Laos and Vietnam* (co-editor, Springer). He has been a member of the Science Council of Japan, a special member of Central Council for Education (Division of Sports and Youth) of the Government of Japan, and a board member of the Japan Comparative Education Society.



## Comments The Learning Beliefs Supporting Sustainability Education

Yuto Kitamura

Associate Professor, Graduate School of Education, The University of Tokyo  
Associate Professor, Integrated Research System for Sustainability Science

1

## Introduction

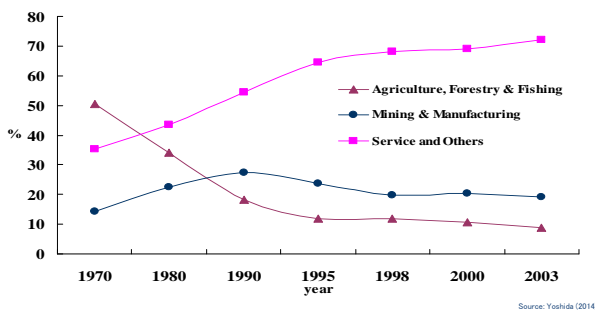
Sustainability Education at Hokkaido University  
Fostering of individuals who can understand diverse cultures, contribute to the future of humanity and play a creative and leading role as well as contributing to the sustainable development of the world



Considering how learning beliefs support sustainability education

2

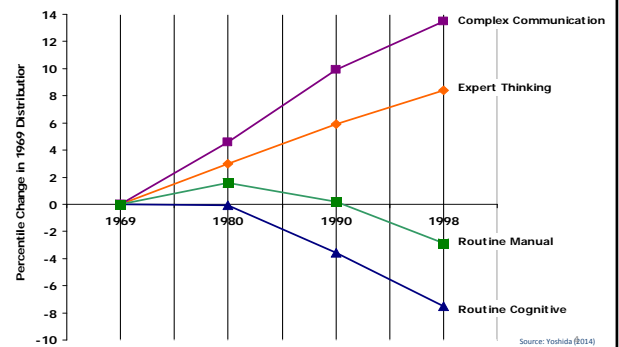
## Employment by Industry (1970-2003)



3

## How the Demand for Skills Has Changed

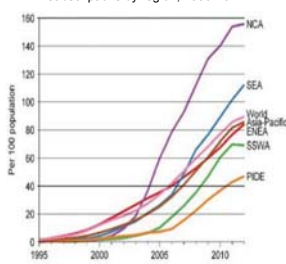
Economy-wide measures of routine and non-routine task input: 1969-1998 (1969=0)



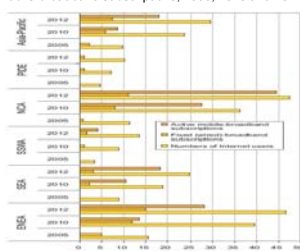
Source: Yoshida (2014)

## Technological Advancement

Number of mobile-cellular subscriptions by region, 1995-2012



Number of Internet users, fixed (wired)-broadband and active mobile-broadband subscriptions, 2005, 2010 and 2012



Presented by Dr. Gwan-Jo Kim, Director of UNESCO Bangkok at the University of Tokyo on December 10, 2015

5

## “Infollution”



Information  
+ Pollution

→ Infollution

Overflow of digital information on the internet left children exposed to unsafe digital pollutants such as obscene and violent contents, cyber bullying, and technology addiction.

Presented by Dr. Gwan-Jo Kim, Director of UNESCO Bangkok at the University of Tokyo on December 10, 2015

6



## Ideal Flexible Learning

- Systematized knowledge and skills alone soon become outdated.
- It is impossible to understand the world with a single correct answer alone.
- Seize diverse learning opportunities including failures.
- Learn how to learn.

7

## Transforming Learning Beliefs

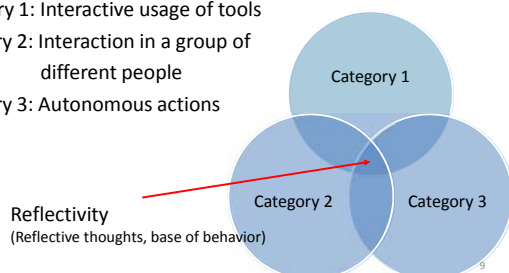
Traditional approaches	Progressive approaches
Education about citizenship	Education for and through citizenship
Reproduction of social order	Shift/adaptation to change
Conformity/compliance	Action and civic engagement
Content-led	Process-led
Knowledge-based	Principle-based
Lecture-based communication	Interactive approach Critical reading
Teacher-centered approaches	Student-centered approaches
Examination oriented	Whole person development
Textbook dominated classroom	Multi-media learning environment
Subject knowledge	Skills for lifelong learning
Imitation	Creation
Modern pedagogy	Pedagogy for the future

Source: created by the author based on Tawil (2013)

8

## International Trend regarding Academic Ability

- Definition and Selection of Competencies: DeSeCo  
OECD Educational Indicator Project
- Competencies
  - Category 1: Interactive usage of tools
  - Category 2: Interaction in a group of different people
  - Category 3: Autonomous actions



9

## Five Pillars of Learning

- Learning to know
- Learning to do
- Learning to live together
- Learning to be

*Learning: Treasure Within* (a report of the International Commission on Education for the Twenty-first Century submitted to UNESCO, 1996)

+

- Learning to transform oneself and society

10

## Importance of SDG 4.7

By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, the promotion of a culture of peace and non-violence, global citizenship and the appreciation of cultural diversity and of culture's contribution to sustainable development

⇒ The issues contained in Goal 4.7 are very important in today's dynamically changing society.

11

## Global Citizenship Education as the Basis for ESD

Many countries form multicultural states based on a multiethnic population, multiple languages and multiple religions.

Focusing on sociocultural values unique to each country

Deepening understanding of universal values transcending national boundaries

Universal ≠ Western

## Ideal Sustainability Education

- **Commonality and diversity in learning beliefs**
  - Transformation of the ways of learning and teaching
  - Fostering of individuals who contribute to political, economic and sociocultural global competition
  - Local context including traditional culture, religion, language and political regime (= education as autonomous activities for each society)
- Focusing on **learning outcomes**
- Fostering of **citizens**, who are members responsible for a democratic society

13

## Localization of SDGs

In the Project on Sustainability Transformation Beyond 2015 (Ministry of the Environment S-11, principal researcher: Norichika Kanie, Professor, Keio University), prescriptions to achieve SDGs in Japan were considered and put into a report.

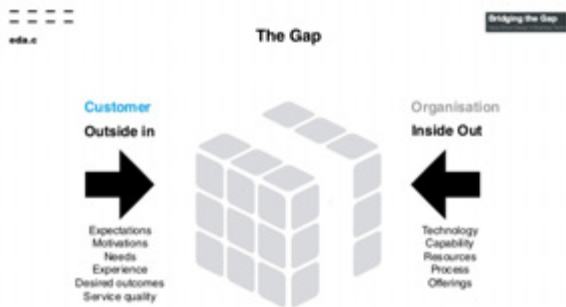
Themes: poverty and unequal society, food, health, education, gender, water, resources/energy, biodiversity, governance

This may serve as a useful reference for curriculum development based on SDGs.



14

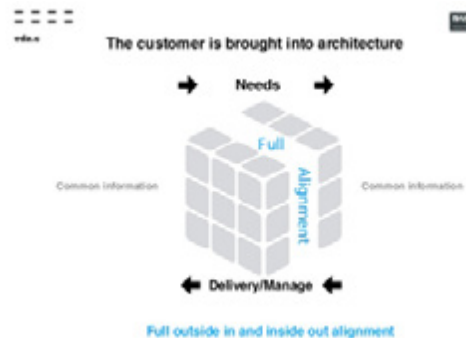
## Inside Out, Outside In Transformation of Approach?



Source: Designing Experiences with Outside-In Architecture by Mike Clark, Business Designer and Milan Guenther, eda.c, Enterprise Architecture Conference Europe June 16-18 2014 (<http://www.slideshare.net/PMAC12/designing-experiences-with-outside-in-architecture-mike-clark-milan-guenther>)

15

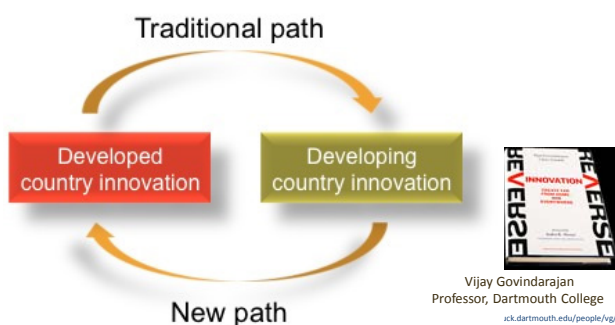
## Civic Engagement Possibility of a **Trans-disciplinary** Approach



Source: Designing Experiences with Outside-In Architecture by Mike Clark, Business Designer and Milan Guenther, eda.c, Enterprise Architecture Conference Europe June 16-18 2014 (<http://www.slideshare.net/PMAC12/designing-experiences-with-outside-in-architecture-mike-clark-milan-guenther>)

16

## Reverse Innovation



Vijay Govindarajan  
Professor, Dartmouth College  
[ck.dartmouth.edu/people/vg/](http://ck.dartmouth.edu/people/vg/)

<http://ajayswamy.com/2013/08/21/reverse-innovation-and-the-role-mobile/>

## Conclusion Great Expectations and Questions

- Ideal ways of **learning** in a rapidly changing society and **a transformation of learning beliefs**
  - ⇒ Great expectations on Hokkaido University's **highly motivated and pioneering initiatives**
- How to balance **universal** values and **intrinsic sociocultural** values
- How to **evaluate the learning outcomes** of sustainability education

18



Yuto Kitamura  
Associate Professor, Graduate School of  
Education, The University of Tokyo  
Associate Professor, Integrated Research System  
for Sustainability Science

19

## Designated Discussant 3

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Mats Engström  
Science and Innovation Division  
Swedish Embassy in Tokyo

### Profile

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Mats Engström is Science and Innovation Counsellor at the Swedish Embassy in Tokyo. Earlier, he held positions as Director of the International Department and Deputy State Secretary at the Swedish Ministry for the Environment. In those roles, he participated in Swedish and European decision-making on sustainable development strategies. He has also been Special Adviser to a Swedish Foreign Minister and Editor-in-Chief of a major technology magazine. Mats Engström holds a M.Sc. in Engineering Physics.

## KTH's sustainability initiative

- Sustainable Campus – focus on campus activities and the development of an Environmental Management System led by the Environmental Manager
- KTH-Sustainability – focus on integrating sustainability in education, research and cooperation led by the vice-president for sustainable development.
- Two parts working together and since 2016 organized as KTH Sustainability Office.

Source: Göran Finnveden, KTH Vice-President for Sustainable Development

1

## KTH Sustainability Office

- 6.5 people employed at the moment
- JPY 100 million (億円) per year (8 million kronor, 0.9 million US \$)
- Vice-President for Sustainable Development is also Director of the Sustainability Office
- EMS (14001) Environmental Manager

<https://www.kth.se/en/om/miljo-hallbar-utveckling/kontakt/organisation-och-kontakt-1.424825>

2

## Sustainable development in education: Two complementary approaches

- Evaluation of the progress of integration of sustainable development on the program level
- and
- providing tools and support for Program directors and teaching staff to achieve the goals set by the university

Source: Göran Finnveden, KTH Vice-President for Sustainable Development

3

## Integration of sustainable development at the program level

- 2011 – Education Assessment Exercise and career surveys pointed out the need for integration
- 2012 - all programs submitted self-assessments
- 2013 - follow-up through a dialogue with schools
- 2013 - all schools set up an action program for integration of sustainable development into their educational programs
- 2014 - all schools followed the action programs
- 2015 - a follow-up
- 2016 - new action programs set up

Source: Göran Finnveden, KTH Vice-President for Sustainable Development

4

## Tools for integration of sustainable development in educational programs

- Clarification of the overall learning outcomes
- Mapping of courses and programs with ESD-relevance
- "Coaching" of teachers and Program directors, contact information on teacher resources
- Pedagogical course - Learning for Sustainable Development
- Development of a Toolbox for Teachers
- Development of course modules
- Seminars and networking
- Seed funding for developing new courses etc.

Source: Göran Finnveden, KTH Vice-President for Sustainable Development

5

## Requirements for master exam

- Ability to develop and design products, processes and system taking account of human circumstances and needs and society's goal for economically, social and environmentally sustainable development.
- Understanding of technology's possibilities and limits, its role in society and human responsibility for how technology is used, including social, economic, environmental and working environment aspects.

6

## Clarification of the overall learning outcomes

### Students should be able to

- Reflect on and discuss the definition of sustainable development with regard to the motives, history, definitions, identifying the most important global challenges. Students should also be able to give examples of connections between ecological, economic and social sustainability.
- Critically discuss current objectives for sustainable development in Sweden, the EU and the UN.
- Describe those activities and technological solutions in society, that are within the scope of the educational programs, and which affect global and prioritized Swedish sustainability aspects. The students should also be able to discuss and evaluate various strategies to strengthen environmental impacts and prevent negative impacts.

7

- Explain economic and institutional factors that can inhibit sustainable development
- Describe, evaluate and apply general, and sectoral and technology-specific methods and strategies used in the development and design of products, processes and systems that contribute to sustainable development.
- Identify and understand the link, with relevance to the educational program, between sustainability concept and innovation.

8

- Discuss ethical aspects, especially relating to their future profession, of gender perspectives and other equity issues of sustainable development, such as the distribution of resources within and between generations.
- Connect an understanding of sustainable development (as described in the goals above) to the skills and knowledge specific for the educational program by proposing and discussing technical solutions, innovations and ideas that can contribute to sustainable development.

9

## Chalmers University of Technology

- Vice-President for Education coordinating ESD
- Programme Directors responsible for ESD within the respective fields
- Different design of mandatory SD course depending on programme
- Collegial Educational Developer for ESD

10



## **Designated Discussant 4**

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Hiroshi Matsumoto  
Senior Advisor, Trade Technology Division  
Royal Norwegian Embassy

### **Profile**

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Hiroshi Matsumoto worked in plasma physics and fusion engineering R&D for 35 years, then on international projects for over 20 years. Having subsequently been involved with the K supercomputer project and the EU framework program Horizon 2020, he now works for the Royal Norwegian Embassy in Tokyo as a senior advisor and as a representative to Japan from the Norwegian University of Science and Technology (NTNU) and the University of Bergen.

## 10th HESD Forum in Hokkaido

### Report

#### Report presenter: Junko Oshima, Professor, University of the Ryukyus

The Higher Education for Sustainable Development (HESD) Forum was established in 2007 to help higher education institutions enhance the quality of their education for sustainable development (ESD) through the sharing of related information. The organizers of the 10th HESD Forum, which was held as part of the Hokkaido University Sustainability Weeks program, are grateful to the Hokkaido University Secretariat for Sustainability Weeks for providing the venue and co-hosting the event.

The Forum's morning University Session featured case reports from five universities. First, Hokkaido University outlined the outcomes and prospects of the ESD Campus Asia's Pacific Program. This was followed by a report from Rikkyo University's ESD Research Center on the potential of ESD education and research at university-affiliated institutions and on its initiatives over the past decade.

Next, Tokushima University outlined a program for the promotion of environmental education toward the establishment of a sustainable society as adopted within the framework of the Ministry of Education, Culture, Sports, Science and Technology (MEXT) Support Program for Contemporary Educational Needs, under which many other universities have also implemented programs since 2000. The university also shared information on post-program developments.

Kanazawa University then laid out its ESD initiatives. Although these efforts have undergone various changes, the university remains a successful example of ESD offered as part of liberal arts and science courses.

Lastly, the University of the Ryukyus outlined the current status of MEXT's Program for Promoting Regional Revitalization by Universities as Centers of Community (a.k.a. the COC + Program), which is designed to support the resolution of regional problems, and highlighted related issues. The university representatives present engaged in frank discussions, based on specific examples, on the current status of their MEXT-subsidized programs, related problems and future directions.

The University Session was followed by the Student Session, during which students from Hokkaido University and the University of the Ryukyus gave presentations. Representatives from the latter highlighted student views on initiatives taken by the university's Ecological Campus Student Committee, which feature credit-bearing on-campus activities. Hokkaido University students outlined a short-term overseas exchange study program using photographs.

The HESD Forum previously focused on presentations by university teachers as university representatives. The Student Session was instituted in 2015 because university initiatives lacking student perspective (i.e., those implemented without prior student feedback) turned out to be one-sided. Adaptation to involve student participation in addition to faculty member input is seen as a positive development.

The organizers plan to continue organizing the HESD Forum as an informal platform for discussions on how universities might continue ESD as part of general education courses. More information on the case reports presented will be provided on the Forum website at a later date.



Student presentation



Presentation at the University Session

## Purposes and overview

The Higher Education for Sustainable Development (HESD) Forum is a network of universities promoting the UN Decade of Education for Sustainable Development (DESD). Since the first HESD Forum held at Iwate University in 2007, the universities involved have dispatched representatives to subsequent forums at Rikkyo University, Okayama University, Sophia University, Tokushima University, Kyoto University, Kanazawa University, Nagoya City University and the University of the Ryukyus. This year's HESD Forum at Hokkaido University marks the event's 10th anniversary.

## Schedule

9:30 Opening  
(MC: Junko Oshima, Faculty of Tourism Sciences and Industrial Management Department of Tourism Sciences, University of the Ryukyus)

Outline of the HESD Forum  
(Osamu Abe, Representative of the HESD Forum and Research Center for Education for Sustainable Development, Rikkyo University)

## University Session

9:35 - 9:50 Outcomes and Prospects of ESD Campus Asia's Pacific Program  
(Masao Mizuno, Faculty of Education, Hokkaido University)

9:50 - 10:05 Possibilities of ESD Education and Research at Institutions Attached to Universities: A Decade of Initiatives by the ESD Research Center, Rikkyo University  
(Osamu Abe, ESD Research Center, Rikkyo University)

10:05 - 10:20 Report on a Support Program for Contemporary Educational Needs Entitled "Environmental Education to Ensure the Sustainability of the Fertile Yoshino River" and the Reorganization of the Program: Consideration on Sustainable Regional Development  
(Norikazu Miyoshi, Faculty of Science and Technology, Tokushima University)

10:20 - 10:35 ESD Initiatives at Kanazawa University  
(Katsunori Suzuki, Institute of Liberal Arts and Science, Kanazawa University)

10:35 - 10:50 Initiatives Taken by the University of the Ryukyus in its Role as a Regional  
(Knowledge) Center, and Related Issues  
(Junko Oshima, Faculty of Tourism Sciences and Industrial Management, the  
University of the Ryukyus)

10:50 - 11:00 Break

### **Student Session**

11:00 - 11:15 Activities of the University of the Ryukyus Ecological Campus Student  
Committee  
University of the Ryukyus (Mei Shimizu, Toshiki Miyagi, Akari Yo)

11:15 - 11:30 Short-term Overseas Exchange Study Program Offered by Hokkaido University  
School/Graduate School of Education  
Hokkaido University (Fuga Masuda, Yuji Manabe, Shinichiro Tanaka)

11:30 - 12:00 Plenary discussion by teachers and students

12:00 End

## Higher Education for Sustainable Development: Lessons to be Learned from North European and Baltic Nations

### Report

**Report presenter: Yoshihiro Narita, Director, Helsinki Office, Hokkaido University**

Since its opening in April 2012, Hokkaido University's Helsinki Office in Finland has liaised with colleges and research institutions in Europe, primarily in Nordic countries, to promote academic exchanges. The Office also helps Hokkaido University students gain overseas experience in Europe through the First Step Program (FSP) and overseas internship programs. Europe is known for its keen interest in realizing a more sustainable society. Northern European countries are particularly noted for their promotion of education to help build a sustainable society. This session was intended to offer insights into sustainable higher education schemes in countries that are advanced in this field, and featured three speakers from outside the university.

First, Mr. Hiroshi Matsumoto from the Royal Norwegian Embassy in Tokyo outlined higher education initiatives in Norway aimed at building a sustainable society. Then, Mr. Mats Engström from the Embassy of Sweden in Tokyo detailed cutting-edge higher education initiatives for sustainable development that were implemented in Sweden and reported their results. Mr. Argo Kangro from the Embassy of Estonia in Tokyo, the only representative from the Baltic countries here, shared an Estonian view of sustainable development and education – a view different from that of Norway and Sweden. Lastly, representing Hokkaido University's Helsinki Office, Director Yoshihiro Narita summarized trends in higher education in Europe as a whole before outlining the history of college reform in Finland.

The session was attended by around 30 audience members, many of whom asked questions to the three outside speakers after their presentations beyond the scheduled times. It is hoped that sessions like these will continue to be held in the following years due to a lack of opportunities in Sapporo to attend presentations on higher education in Nordic and Baltic countries, particularly on initiatives to build a sustainable society in those countries.



Mr. Argo Kangro from the Embassy of Estonia in Tokyo



Post-event commemorative photo of the four speakers (from left: Mr. Matsumoto, Mr. Engström, Prof. Narita and Mr. Kangro)



## Purposes and overview

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The North European nations of Finland, Sweden, Norway and Denmark and the Baltic states of Estonia, Latvia and Lithuania are known for providing higher education focused on the development of a sustainable society. This session highlights the current status of these progressive approaches.

## Schedule

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9:55	Opening
10:00 - 10:30	Norwegian Efforts for Higher Education toward the Realization of a Sustainable Society (Hiroshi Matsumoto, Royal Norwegian Embassy in Tokyo)
10:30 - 11:00	From words to results. Swedish experiences with higher education for sustainable development (Mats Engström, Swedish Embassy in Tokyo)
11:00 - 11:30	Sustainable development and education: a view from Estonia (Argo Kangro, Estonian Embassy)
11:30 - 12:00	The History of Higher Education in Europe and the Development of University Reform in Finland (Yoshihiro Narita, Hokkaido University Helsinki Office)

## Lecturer 1

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Hiroshi Matsumoto  
Senior Advisor, Trade Technology Division  
Royal Norwegian Embassy

## Profile

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Hiroshi Matsumoto worked in plasma physics and fusion engineering R&D for 35 years, then on international projects for over 20 years. Having subsequently been involved with the K supercomputer project and the EU framework program Horizon 2020, he now works for the Royal Norwegian Embassy in Tokyo as a senior advisor and as a representative to Japan from the Norwegian University of Science and Technology (NTNU) and the University of Bergen.

## Lecturer 2

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Mats Engström  
Science and Innovation Division  
Swedish Embassy in Tokyo

## Profile

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Mats Engström is Science and Innovation Counsellor at the Swedish Embassy in Tokyo. Earlier, he held positions as Director of the International Department and Deputy State Secretary at the Swedish Ministry for the Environment. In those roles, he participated in Swedish and European decision-making on sustainable development strategies. He has also been Special Adviser to a Swedish Foreign Minister and Editor-in-Chief of a major technology magazine. Mats Engström holds a M.Sc. in Engineering Physics.

## Lecturer 3

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Argo Kangro  
Counsellor, Deputy Head of Mission  
Embassy of Estonia in Tokyo

## Profile

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Argo Kangro is Counsellor at Deputy Head of Mission, Embassy of Estonia in Tokyo.

He graduated from Tallinn University Law School and received M.A. in Law in 1997. He had worked as Attaché and Policy Officer at Estonian Ministry of Foreign Affairs (MFA) during 1999-2002, and as Director, Division of Visits and Ceremonies, State Protocol Department during 2006-2008. He also served as Counsellor at Embassy of Estonia in the Netherlands during 2011-2014 and also at External Economic and Development Co-operation Department, MFA, Tallin during 2014-2016.

## Organizer

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Helsinki Office, Hokkaido University

Entrance: free

Language: Japanese, some English (slides subtitled in Japanese)

## A Challenge by College Students – Connecting Global Goals with Personal Ideals

### Report

**Report presenter: Mika Ohsaki, Environmental Partnership Office Hokkaido, Ministry of the Environment**

Sustainable Development Goals (SDGs) are often thought to relate only to faraway countries. This session featured three students who outlined initiatives aimed at helping achieve SDGs and shared their views on SDGs in terms of their own activities.

The session began with a presentation on the background and characteristics of SDGs by a representative of EPO Hokkaido. The speaker touched on the 1972 publication of *The Limits to Growth* and other milestone events to stress that the finiteness of global resources has made it imperative to create a sustainable society.

Megumi Wada (senior, Faculty of Policy Management, Keio University) outlined the initiatives for promoting SDGs undertaken by the laboratory to which she belongs. It promotes SDGs to people of her generation using SNS, as well as conducts the Campus SDGs Project, in which they place stickers about SDGs around campus. These initiatives are intended to encourage people to consider global goals as being relevant to them.

Miwa Mishina (sophomore, Department of Environmental and Symbiotic Science, Rakuno Gakuen University) and Ryotaro Akamatsu (junior, School of Biological Science, Tokai University Sapporo Campus) outlined activities of the non-profit organization to which they belong – the Daisetsuzan National Park Mt. Asahidake Nature Conservation Project of the Ezorock organization. They also illustrated how their activities relate to SDG 4 (Quality Education) and SDG 15 (Life on Land). In addition, they explained in detail how each activity (e.g., an activity involving the renting of boots to mountaineers) helps to conserve the natural environment.

The presentations were summarized using graphic recording (see the photo) by Megumi Makihara (Sustainability Dialogue, Inc.) and Tatsunori Marufuji (youth community designer).

The presentations appeared to provide participants with useful ideas, with one student saying that the session familiarized her with SDGs. After this session, the participants also attended another Students Workshop, entitled "Higher Education for a Better Global Future – Consideration from Student Perspectives."



Workshop



Student presentation

## Agenda

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Sustainable Development Goals (SDGs) have emerged as a global trend, yet the term "Sustainable Development Goals" can feel too lofty and sound like something that has little to do with us. If we change our viewpoint, however, we can see that these goals are related to us in many respects. This session will feature three college students who will give participants ideas as to how they are related to SDGs. Don't miss the opportunity to enjoy interacting with them over lunch.

The participants are encouraged to also attend a Student Workshop entitled "Higher Education for a Better Global Future – Consideration from Student Perspectives," which will be held from 14:00 as part of Parallel Session 4. The workshop will focus on how students can help achieve global goals through education – a familiar topic for them.

## Time Schedule

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12:15	Opening
12:20 - 12:30	Presentation: The SDGs – Global Goals
12:30 - 13:00	Example 1: "Education and Awareness-raising Efforts to Promote the SDGs on Campus"
13:00 - 13:30	Example 2: "SDGs as Part of Daily Life"
13:30 - 13:45	Networking session for speakers and participants
13:45	Closing

## Chair

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Mika Ohsaki, Environmental Partnership Office Hokkaido

## Example 1: Education and Awareness-raising Efforts to Promote the SDGs on Campus

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### Presenter

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Megumi Wada  
senior, Faculty of Policy Management  
Keio University

### Abstract

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The Kanie laboratory is located in the Shonan Fujisawa Campus of Keio University. It promotes the Sustainable Development Goals (SDGs) through practical research. For instance, activities using Instagram motivate students to think about the relationships between their interests and the 17 SDGs. We also conduct the Campus SDGs Project, with which we place posters about the SDGs around campus. In this session, I would like to tell you about these projects, which use the campus as a place for learning about and promoting the SDGs.

### Profile

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Megumi Wada is a senior at Keio University, where she belongs to the Kanie laboratory and works as a student leader. Her major is in environmental governance and the implementation of research into the SDGs on a national/global level. Presently, the lab is conducting an SDG promotion event called Campus SDGs on the campus. She will continue her study at Keio's Graduate School of Media and Governance, on an environmental design and governance course.

Outside of university, she works in various organizations, such as the NGO Junior United Nations ECO Workshop, International Youth Exchange Organization of Japan, NPO Shinjuku Eco Action Network and as an OECD Student Ambassador.

In her school days, she participated in international conferences such as the Ship for World Youth Leaders Program organized by Japan's Cabinet Office, the UN Global Compact Network China-Japan-Korea Roundtable and the China-Japan-Korea Tripartite Environmental Ministers Meeting as a representative of Japanese youth. She also actively promoted the SDGs using Instagram at the 18th Tripartite Environmental Ministers Meeting held in Shizuoka this year.

This is her second time to visit Hokkaido, and she is very excited to enjoy the Genghis Khan barbecue.

## Example 2: SDGs as Part of Daily Life

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### Abstract

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Miwa Mishina learned about biodiversity at college. She gained book knowledge, but also wanted to learn what was actually taking place in the real world. This is how she came to participate in environmental conservation activities by an outside environmental organization (an incorporated nonprofit organization named Ezorock). Her understanding of biodiversity has deepened as she comes to know at firsthand what the terms and concepts she learned at college actually mean, including the relationship linking plants, soil and water. This session will outline the activities of the organization and illustrate how they relate to the SDGs.

### Presenter 1

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Miwa Mishina  
sophomore, Department of Environmental and Symbiotic Science  
Rakuno Gakuen University

### Profile

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Miwa Mishina is volunteering to help conserve the environment as a member of the Daisetsuzan National Park Mt. Asahidake Nature Conservation Project in an incorporated nonprofit organization named Ezorock. She entered the university to study wildlife, but found that the number of courses on the natural environment that were open to first-year students was limited. This made her realize that she should not just take courses at university, so she began working for Ezorock, an organization engaged in various environmental activities.



## Presenter 2

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Ryotaro Akamatsu  
junior, School of Biological Science  
Tokai University Sapporo Campus

### Profile

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Ryotaro Akamatsu has loved wildlife since he was a small child, often observing various living beings and wondering what they were thinking about. His fascination with wildlife continued when he was a junior high and high school student. He took biology as an elective science course at high school and entered the university to learn about wildlife.

He decided to study the environment quite recently. He had wanted to do a job relating to wildlife, but had not known what kinds of job would be available. The only job he could think of was a keeper in a zoo. Then, he learned about Ezorock when he happened to participate in a program offered by Fukushima Kids, an organization working to protect children in Fukushima. As he was involved in a variety of environmental activities, considering relevant issues from various perspectives and employing different approaches, he realized that in-depth knowledge about the environment would help him better understand the purposes and significance of those activities. That is why he came to think that he should learn more about the environment.

### Organizer

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Environmental Partnership Office Hokkaido

### Co-host

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Hokkaido University

### Sponsor

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Sustainability Dialogue, Inc.

## How and What Higher Education Could Contribute to SDGs

### Report

**Report presenter: Norikazu Miyoshi, Professor, Faculty of Science and Technology, Tokushima University**

The format of the initially planned discussion featuring Professor Osamu Abe of Rikkyo University and Professor Katsunori Suzuki of Kanazawa University on the theme of How and What Higher Education Could Contribute to SDGs was changed to better suit the audience of 10 or so, with the presenters providing subjects for discussion and answering questions from the floor.

Attendees discussed education for sustainable development (ESD) to establish a common understanding of the field before moving on to discuss the SDGs. ESD involves promotion of the perception switch needed for a transformation from competition-driven capitalism to a safe, secure society of mutual sharing and support.

Higher education institutions must consider ideal provision of ESD programs. ESD in such education may resemble primary teaching, in that related hands-on programs are intended to familiarize students with regional issues. However, students in higher education engage in deeper learning and investigate/research toward problem resolution.

Against this background, ESD may be considered indistinguishable from professional education. While it is true that ESD includes professional education in problem resolution, it also incorporates general education as an important element that will change values as outlined above toward the establishment of a safe, secure society characterized by mutual sharing and assistance. These discussions helped to develop attendees' mutual understanding.

Although SDG-related deliberations were limited by the time restraints of the session, fruitful discussions were held on how higher-education institutions might contribute to ESD initiatives within the post-Decade of Education for Sustainable Development (DESD) framework. The 10th HESD Forum featured a summary of the related decade of activities and lively discussions toward the next decade.



Discussion

## Agenda

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The Higher Education for Sustainable Development (HESD) Forum is a network of universities promoting the UN Decade of Education for Sustainable Development (DESD). Since the first HESD Forum at Iwate University in 2007, the universities involved have dispatched representatives to subsequent forums at Rikkyo University, Okayama University, Sophia University, Tokushima University, Kyoto University, Kanazawa University, Nagoya City University and the University of the Ryukyus. This year's HESD Forum at Hokkaido University marks the event's 10th anniversary and coincides with the 2016 launch of the UN Sustainability Development Goals (SDGs). In this landmark year, the session will feature a discussion between two professors specializing in the field of ESD and an open audience discussion on the roles of institutions of higher education toward the achievement of the SDGs as part of the post-DESD agenda.

## Time Schedule

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- 12:15 - 12:30    Session Opening and Presentation on a Decade of the HESD Forum
- 12:30 - 13:15    Discussion: Prof. Osamu Abe and Prof. Katsunori Suzuki (incl. responses to pre-submitted questions and views)
- 13:15 - 13:45    Open Audience Discussion

## Chair

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Norikazu Miyoshi  
Faculty of Science and Technology, Tokushima University

## The Role of Higher Education for Sustainable Development Goals (SDGs)

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### Abstract

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The Higher Education for Sustainable Development (HESD) Forum is a network of universities promoting the UN Decade of Education for Sustainable Development (DESD). Since the first HESD Forum at Iwate University in 2007, the universities involved have dispatched representatives to a number of subsequent forums. This year's HESD Forum at Hokkaido University marks the event's 10th anniversary and coincides with the 2016 launch of the UN Sustainability Development Goals (SDGs). In this landmark year, the session will feature a discussion between two professors specializing in the field of ESD on the roles of institutions of higher education toward the achievement of the SDGs as part of the post-DESD agenda. The interaction will be based on pre-submitted questions and views, and will be followed by an open audience discussion.

### Presenter 1

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Osamu Abe  
Professor, College of Sociology, Director, ESD Research Center  
Rikkyo University

### Profile

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Born in Niigata Prefecture in 1955, Osamu Abe is a professor at Rikkyo University's Graduate School of Sociology and College of Sociology specializing in environmental education and education for sustainable development (ESD). He is also engaged in environmental education and ESD research/practice in Japan and other parts of the Asia-Pacific region in his role as the director of the university's Education for Sustainable Development Research Center and in other capacities. He previously served as president of the Japanese Society of Environmental Education.

## Presenter 2

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Katsunori Suzuki  
Institute of Liberal Arts and Science, Environment Preservation  
Center Professor, Director of the Environment Preservation Center  
Kanazawa University

### Profile

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Katsunori Suzuki previously worked for the Ministry of the Environment (formerly the Environment Agency) on initiatives to protect the ozone layer, international negotiations on climate change, international collaboration for environmental protection, and other projects. During this period he was dispatched to a number of international organizations, including the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), the World Bank, the Acid Deposition and Oxidant Research Center of the Japan Environmental Sanitation Center (JESC), and the United Nations University Institute for the Advanced Study of Sustainability (UNU-IAS). While at UNU-IAS, he was involved in the development of the International Implementation Scheme for the UN Decade of Education for Sustainable Development (DESD-IIS) in collaboration with UNESCO to promote the DESD. He also contributed to the promotion of Regional Centres of Expertise for the education of sustainable development (RCEs). Based at Kanazawa University, he currently promotes ESD activities in the Hokuriku region.

### Organizer

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HESD Forum

### Co-host

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Institute for International Collaboration, Hokkaido University

## Higher Education for a Better Global Future – Consideration from Student Perspectives

### Report

**Report presenter: Mika Ohsaki, Environmental Partnership Office Hokkaido, Ministry of the Environment**

This workshop focused on ideal higher education for the development of a better community. To become more familiar with Sustainable Development Goals (SDGs), participating students discussed which of the SDGs related to their daily lives and aspirations. The discussion was then followed by a presentation by Yurie Makihara (Sustainability Dialogue, Inc.) on ideas for the achievement of sustainability. Ms. Makihara also exchanged opinions with the students about ideal higher education for SDGs.

Attendees of the workshop had a variety of opinions about higher education. Some saw it as an open place connecting them with others on campus and elsewhere, while others viewed it as an opportunity to challenge what may turn out to be useless. Opinions also included those regarding syllabus development together with teaching staff and recommendations for and support of getting married while in school. The workshop also provided an opportunity to reaffirm that institutions of higher education are a great place for learning.

The workshop ended with Susumu Ohnuma (associate professor, Graduate School of Letters, Hokkaido University) summarizing the session as having resulted in lively discussions and the sharing of valuable opinions.

Many respondents to a post-event questionnaire suggested that the workshop provided a forum for discussion with people they usually do not see. One respondent found it interesting that despite the various opinions, what participants wanted out of higher education turned out to be the same.

EPO Hokkaido plans to continue its education and awareness-raising activities to promote SDGs as it did through the two Parallel Sessions. It will also help young people become leaders in the creation of a better society by offering a platform from which to participate in society and make presentations about their activities to spread the word about their work across Hokkaido, Japan and beyond. We express our heartfelt appreciation to all parties concerned for their cooperation with the organization of this session.



Workshop



Attendee group photo



## Agenda

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This workshop is intended to facilitate discussion on education from a student perspective and then share the opinions expressed with all symposium participants. Topics will include how to help achieve the SDGs and how to connect to the world.

Participants are encouraged to give shape to their ideas through discussion based on the knowledge they gain at the earlier lunch session. Of course, you can participate only in this session. Join us in conveying student perspectives to higher educational institutions so that they will provide programs relating to global goals. These will include student requests ranging from small-scale suggestions like offering courses on the SDGs to large-scale initiatives like providing study-abroad programs to learn about overseas initiatives for the achievement of the SDGs.

## Time Schedule

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14:00	Opening
14:05 - 15:45	Workshop-style discussion on education that helps to achieve global goals
15:45 - 16:00	Summary
16:00	Closing

## Chair

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Yurie Makiyara  
Sustainability Dialogue, Inc.

## Chair's Profile

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Yurie Makiyara became interested in sustainability after her son was born and then spent four years in Sweden completing two sustainability-related masters courses. She promotes in Japan the holistic knowledge of sustainability she learned in Scandinavia – the knowledge which she believes will make people's lives better. She is the steward of the global participatory leadership community Art of Hosting Japan, a faculty member of the CIYO (Coming into Your Own) Japan inter-leadership program for women, and an advocate for graphic harvesting for regional reactivation.

[www.sustainabilitydialogue.vision](http://www.sustainabilitydialogue.vision)

## Organizer

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Environmental Partnership Office Hokkaido

## Co-host

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Hokkaido University

## Sponsor

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Sustainability Dialogue Inc.

## Learning for Creating the Knowledge beyond Conflict -Possibility for Reconciliation under the Divided Society-

### Report

**Report presenter: Takashi Miyazaki, Professor, Faculty of Education, Hokkaido University**

Efforts to achieve SDGs always involve conflict as a result of conflicting interests. This session focused on conflict itself, and discussed three examples of the type of learning necessary to achieve peace through reconciliation and forgiveness. The session was attended by a total of 52 people, including 3 staff members and 4 speakers

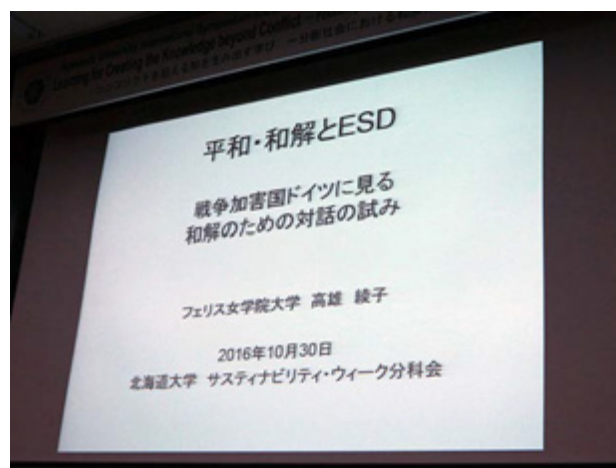
Ayako Takao (associate professor, Ferris University) outlined how people in Germany and Poland sought and achieved grassroots reconciliation. Yoko Sasaki (instructor, Nanzan University) focused on expressive activities under Israeli occupation at the Palestinian community-based Freedom Theatre in the Jenin Refugee Camp. Kanayo Ueda, (representative, Cocoroom café), outlined initiatives to engage local residents in self-expression in Osaka's Kamagasaki district, one of Japan's largest day laborer towns. Tomonori Ishioka (associate professor, Faculty of Education, Hokkaido University) commented on these speeches.

During the discussions, the speakers agreed on the need to build peace at a micro level – that is, between individuals – rather than to achieve reconciliation at a macro level as a means of conflict resolution. They concurred that it is necessary to: (1) provide a forum where people torn apart in a divided society can express their opinions to a receptive audience; (2) explore the possibility of helping people regain their emotions and relevance using simulations such as theatrical performances until a system including the above-mentioned forum is established; and (3) realize the importance of ongoing activities that will allow relationships to evolve, rather than become fixed.

Although the concepts of environmental justice and global citizens are occasionally discussed as part of conflict resolution, this session clarified that rather than viewing such concepts as the harbinger of peace, people should first recognize the reality of conflict and then learn to find answers to in-depth questions while making ceaseless efforts to address any inconsistencies. We at the Faculty of Education and the Research and Clinical Center for Child Development, Hokkaido University, plan to continue addressing these challenges by involving even more experts in related fields.



Discussion



Slide shown by Associate Professor Ayako Takao

## Agenda

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A society that tolerates social exclusion creates division and "enclosure," causing conflicts between and inside people. What kinds of knowledge are needed for us to settle these conflicts and achieve peace through reconciliation? This session is intended to answer this question through discussion on a dialogue approach based on victim-offender reconciliation, theatrical performances in conflict areas, and art activities in poor communities. Topics also include the significance of these activities as education for sustainable development (ESD).

## Time Schedule

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14:00	Opening
14:00 - 14:05	Symposium Background
14:05 - 14:25	Speech 1: Peace, Reconciliation and ESD: Dialog for Reconciliation after the War in Victimizer Germany
14:25 - 14:45	Speech 2: Performance Art under Occupation; Freedom Theater in Jenin, Palestine
14:45 - 15:05	Speech 3: Ideas born at Cocoroom, a Café Offering Opportunities for Expression in Kamagasaki
15:05 - 15:15	Discussant Panel: From the Perspective of People Living in Poverty: Based on an Example in the Philippines
15:15 - 16:00	Discussion and Summary

## Speech 1: Peace, Reconciliation and ESD: Dialog for Reconciliation after the War in Victimizer Germany

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Ayako TAKAO  
Ferris University

### Abstract

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During war between countries, the peace of individuals becomes obscured by "big picture" issues like country development, world peace and self defense. This gives rise to unconscious discrimination – the root cause of conflicts that follow for many years. This speech will discuss the knowledge necessary to overcome conflicts based on examples of Polish and German women who have begun conversation for personal reconciliation beyond the victim-offender relationship of their nations.

### Profile

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Nihon University's Department of Literature and Science (Bachelor of German Literature), Tokyo Metropolitan University's Graduate School (Master of Urban Science), University of Tokyo's Graduate School (Master of Education), Associate Professor of Ferris University.

## Speech 2: Performance Art under Occupation; Freedom Theater in Jenin, Palestine

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Yoko Sasaki  
Nanzan University

### Abstract

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Israel's colonialist military occupation of Palestine has caused a myriad of hardships over an extended period that go beyond the notable land confiscation and denied access to the basic infrastructure Palestinians need, such as water and transportation. Consequences of occupation are also evident in the invisible psychological sphere – Palestinians' ability to freely come up with ideas necessary to seek self-esteem and self-governance is being undermined. This speech will outline an example of local theatrical art activities involving children as part of various ongoing non-violent resistance through art. These activities will be highlighted as resistance to the confiscation of land and other resources and also as an attempt toward coexistence and symbiosis.

### Profile

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Yoko Sasaki has been engaged in research and education on communication for multicultural coexistence as an instructor at the Faculty of Policy Studies, Nanzan University, after engaging in international educational exchanges at Hong Kong University and then at Kumamoto University.

She views postcolonialism as an approach to harmonious coexistence, and promotes workshops and engages in communication design with a focus on people's knowledge in everyday life.

### Speech 3: Ideas Born at Cocoroom, a Café Offering Opportunities for Expression in Kamagasaki

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Kanayo Ueda  
The NPO Cocoroom

#### Abstract

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Art NPO Koe-to-Kotoba-to-Kokoro-no-Heya (Room of Voices, Words and Thoughts), also known as Cocoroom, has offered opportunities for expression in Kamagasaki for more than a decade. Kamagasaki is one of Japan's largest day laborers' towns. Masquerading as a café in the shopping district, Cocoroom offers opportunities for self-expression daily. It has established a media center to promote daily conversation, launched a community healthcare project and engaged in various other activities. Against the backdrop of Japan's rapidly graying society, Cocoroom also initiated Kamagasaki Geijutsu Daigaku (literally Kamagasaki Art University) using local facilities to offer free courses for locals. It launched a guest house project in the spring of 2016.

#### Profile

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Born in Nara Prefecture in 1969, poet Kanayo Ueda started creating poems at the age of three and began public readings when she was 17 years of age. She first organized a poetry workshop in 1992 and declared herself a poetry entrepreneur in 2001. She established Cocoroom café in 2003 with the theme Expression, Autonomy, Jobs and Society, and she has also published a book titled "Cocoroom, a Café Offering Opportunities for Expression in Kamagasaki" (in Japanese; Film Art, Inc.). She is a research fellow at the Urban Research Plaza of Osaka City University. She received the New Face Award of the Minister of Education Award for Fine Arts (from Japan's Agency for Cultural Affairs) in 2014.

## **Discussant Panel: From the Perspective of People Living in Poverty: Based on an Example in the Philippines**

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### **Designated Discussant**

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Tomonori Ishioka  
Faculty of Education, Hokkaido University

### **Chair**

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Takashi Miyazaki  
Professor  
Faculty of Education  
Hokkaido University

### **Chair's Affiliation**

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Faculty of Education, Hokkaido University

### **Organizer**

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Graduate School of Education



## Cultural heritage and the Sustainable Development Goals. A missed opportunity?

### Report

**Report presenter: Shunzo Majima, Associate Professor, Center for Applied Ethics and Philosophy, Graduate School of Letters, Hokkaido University**

This session featured a presentation titled *Cultural Heritage and the Sustainable Development Goals. A missed opportunity?* by Professor Peter Stone from Newcastle University in the UK, who is a world authority on cultural heritage protection education/research and a leading expert in sustainability ethics research.

Professor Stone stressed that protecting cultural heritage and cultural property should be an urgent focus of present-day society as specified in SDG Target 11.4, and highlighted its essential role in the establishment of a sustainable society. He also detailed challenges and prospects related to such establishment through cultural heritage and cultural property protection.

Before entering the academic world, Professor Stone worked for English Heritage (a charity dedicated to protecting England's past). Based on his practical experience in supervising the management of Hadrian's Wall (a World Heritage site), his assertions highlighted the importance of education. He also outlined surveys in which he had been involved, including a UK Ministry of Defence investigation relating to the destruction of cultural property during the Iraq War and UNESCO surveys on cultural property that was looted and destroyed during armed conflicts in Libya and elsewhere. His initial accounts were probably known only to those directly involved, and were therefore of significant interest and value here.

Professor Stone, who is also a historian, stressed the role of history studies in understanding the present and shaping the future. Highlighting the importance of historical learning based on the protection of cultural heritage and cultural property can be considered compatible with the purpose of the International Symposium Commemorating the 10th Anniversary of the Sustainability Weeks, which was to provide a platform for consideration toward the creation of a sustainable society characterized by harmony and respect.



Prof. Peter Stone



Venue

## **Presenter**

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Peter Stone  
UNESCO Chair in Cultural Property Protection & Peace

## **Abstract**

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On September 25<sup>th</sup> 2015 the UN launched its Sustainable Development Goals, which together would, by 2030, work to "end poverty, protect the planet, and ensure prosperity for all as part of a new sustainable development agenda".

The 11<sup>th</sup> Goal is "Sustainable cities and communities", which has as its sub-heading to "Make cities inclusive, safe, resilient and sustainable". Target 11.4 is tasked to "Strengthen efforts to protect and safeguard the world's cultural and natural heritage". None of the other Goals relate specifically to heritage or culture.

For an initiative based around the concepts of "People, Planet, Prosperity, Peace, and Partnership" to subsume the protection of heritage under a Goal dealing predominantly with cities appears somewhat bizarre – not least as little of the world's natural heritage occurs in cities! Indeed, while an increasing proportion of the world's population lives in urban areas a significant amount of the world's tangible cultural heritage also lies outside this, ever increasing, march of concrete. To a non-economist, the belief that the Goals can deliver their targets in "a world in which every country enjoys sustained, inclusive and sustainable economic growth" also seems to defy any realistic law of reality.

At their heart, the Goals set a very necessary, very laudable agenda to help realise the long-term survival of the human species. Implicitly they acknowledge that the root cause of much that threatens the world is the human species. So why do they seemingly ignore, or at least give so little attention to, the one thing that separates us from all other species on the planet: our culture?

## **Organizer**

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Center for Applied Ethics and Philosophy

## The Role of Higher Education for Sustainable Development Goals (SDGs)

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### Report

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**Report presenter : So Kawanobe, Deputy Director, Institute for International Collaboration, Hokkaido University (MC, Plenary Session)**

At this session, presentations made by the representatives of the Parallel Sessions and following plenary discussions laid bare the following issues that would require ongoing discussion.

- How institutions of higher education can contribute to the realization of the world envisaged in paragraphs 7, 8 and 9 in the UN resolution entitled *Transforming Our World: The 2030 Agenda for Sustainable Development*, which underlies the Sustainable Development Goals (SDGs)
- How we can develop an educational institution in which students can learn in a changing society while transforming themselves and help society change for a better future
- The need for teachers and students to work together to develop a method/system for improving classes and subject courses by actively reflecting the opinions of students, who actually take the classes and courses
- How we should institutionalize initiatives to implement, assess and review educational programs to produce future leaders capable of contributing to the achievement of sustainable development, and to develop and implement necessary faculty development programs

### Outline

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On the second day of the symposium, four Parallel Sessions will be held under the themes of (1) education for sustainable development, (2) student perspectives, (3) cultural heritage and (4) reconciliation. Participants of these Parallel Sessions will have the opportunity to share experiences in education and learning and to discuss related challenges under these themes. This session, which will wrap up the symposium, will feature five-minute presentations by the representatives of the Parallel Sessions. They will discuss ideal values on which universities should rest when providing education that contributes to the achievement of SDGs as well as the ideal actions universities should take based on such values. These are intended to raise issues facing teaching and learning based on the discussions at the Parallel Sessions. The participants will also discuss how universities should be in the era of SDGs while paying due attention to the needs of those working on the front lines of education.

### Time Schedule

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16:15 – 17:00 Discussion

## Chair

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Masakane Yamashita  
Vice-President  
Hokkaido University

## Profile

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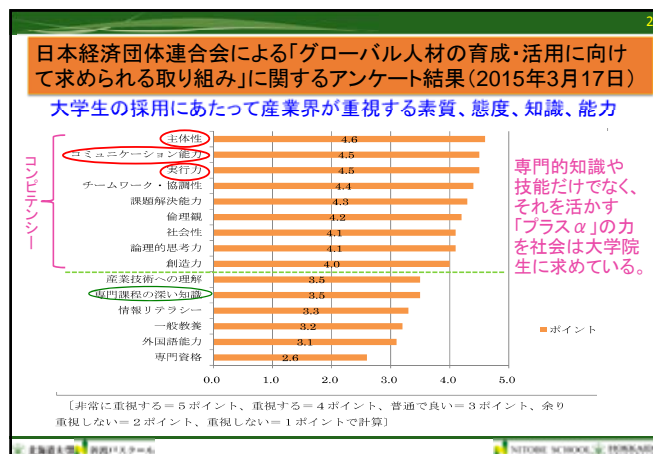
Chief, President's Project Team for Sustainable Development in Hokkaido University Education  
Vice-President, Hokkaido University  
Professor, Faculty of Science  
Vice-Principal, Nitobe School

## 新渡戸学校の概略

- 総長を校長とする全学教育プログラム
- 2015年5月開校
- 対象: 本学の全大学院生(18大学院・51専攻)
- 定員: 基礎プログラム(修士課程) 60名
- 修了要件: 修士号取得、新渡戸学校科目8単位、ポートフォリオ作成
- 入校者: 64名(2015年度)[78名(2016年度)]

2017年度より

- 基礎プログラム(修士課程) 120名
- 上級プログラム(博士課程) 25名 [2016年度に試行]



## 「3+1の力」: 専門性を活かす力

新渡戸学校では、現在社会が期待する「専門性を活かす力」を「3+1の力」と定義した

- 能力更新力:** 問題に応じて自己能力を把握し、向上を図る力(自分に対する力)
- 組織形成力:** 多様な専門性を持つ人材を組織・統率し、課題を解決できる力(他者に対する力)
- 社会還元力:** イノベティブな解決によって、社会に創造的価値をもたらす力(社会に対する力)
- 専門職倫理:** 多様な価値観の中で、専門家として公平・公正な判断ができる

## 新渡戸学校の特徴(1/5): 国際社会の縮図

様々な知識、技能、経験、価値観を持つメンバーから構成されるチームにおいても、コミュニケーションを十分に取ることで相互理解を深め、課題解決に向けて自身の持つ専門的能力を最大限に生かすことができる人材を育成する

チーム学習を中心としたアクティブラーニング

新渡戸学校において、多様な専門性、文化、国籍を背景に持った学生が全大学院から参加する教室「国際社会の縮図」を創り出す

北海道大学には、6,000名以上の大学院生が在籍する80の国(地域)から約1,500名の留学生を受け入れている18大学院・51専攻で多種多様な専門分野の教育・研究を実施

