

# International Expansion of Educational Activities

## - Hokkaido University Initiative for Sustainable Development (Hokkaido University)

### Summary

Hokkaido University (HU) developed an international initiative utilizing its strength as a global research university in 2005 in response to a call from the international community to realize a sustainable society. HU promotes “Education for Sustainable Development (ESD)” for not only HU students, but also for students, specialists, educators, and citizens all over the world. HU activities include:

- (1) building international networks of education and research with universities and research institutes overseas as well as international organizations
- (2) international cooperation through human resource development
- (3) holding international symposia to discuss various issues concerning sustainable societies
- (4) making policy recommendations to promote ESD

Information on these activities is available at the web site:

(<http://www.sustain.hokudai.ac.jp>)



Prof. Takeo Hondoh  
Executive and Vice-President, HU  
Manager, HUISD

### Background

Sustainability of the global environment and human society is the most important theme for international and academic society today. For over one hundred thirty years, HU’s basic philosophies of education and research have been: “Frontier Spirit”, “Global Perspectives”, “All-round Education”, and “Practical Learning.” Now HU is pursuing universal and present-day meanings of these philosophies for today’s international society.

### Goals

With 12 faculties and 18 graduate schools, HU is a core university in Japan, and recognizes its responsibility to contribute on an international scale so human beings can continue to develop sustainably. In order to solve common themes such as conservation of the global environment, HU set a goal to accelerate research and is striving to raise the quality of education, especially at the graduate level to nurture students who will play active roles in international society.

### Implementation

HU’s President established a project office, named the “Hokkaido University Initiative for Sustainable Development (HUISD)”, and the vice president of international affairs manages it. HUISD serves as the liaison between ongoing educational programs and research at the various graduate schools and research centers of HU. It is also responsible for planning projects and public relations concerning any sustainable development activity. In April 2008, we opened the “Center for Sustainability Science (CENSUS)” to improve the cooperative environment amongst graduate schools to create and develop educational programs that cross-over boundaries between the Arts and Sciences.



Website: Hokudai Network for Global Sustainability  
<http://www.sustain.hokudai.ac.jp>

# Activities

HU uses the latest research results from various academic fields for educational purposes, and strives to develop a favorable environment for ESD.

## 1. International Networks

HU has formed many research networks and educational networks with other universities, research institutions, and international organizations from all over the world. Some examples of these networks are: “The International Antarctic Institute Consortium”, “Promotion of Sustainability in Postgraduate Education and Research Network”, “Pan-Okhotsk Environmental Research Network”, and the “Emerging Infectious Disease Global Surveillance Network”.

## 2. International Cooperation

HU engages in ESD with a mindset of international cooperation. We provide intensive programs to train university instructors and professionals so that they are able to wrestle with various issues such as infectious disease and waste disposal. In particular the Research Center for Zoonosis Control has received international attention for its work on setting up a worldwide prevention system to combat Avian Influenza.

## 3. International Symposia

HU has held international symposia and public lectures actively every year since 2006, providing opportunities for discussions based on the latest research results for students, researchers, and citizens of the world. In particular, since 2007, HU established “Sustainability Weeks”--a period of time devoted to symposia. During “Sustainability Weeks 2008”, fifty sessions covering six disciplines were held with the participation of more than 6,000 people not only from HU but also from overseas. Students had great opportunities to listen to the latest research reports by leading researchers that are working on creating a sustainable society, and were also able to participate in the discussions.

(For details, please visit <http://www.sustain.hokudai.ac.jp> )



### 6 Disciplines

Climate & Environment Change  
Technological Innovation, Social Change  
Biodiversity, Nature Conservation  
Food, Water, Health  
Education, Communication  
Human Rights, Culture, Peace

## 4. Policy Proposals for ESD

HU is engaged in policy proposals concerning ESD. In 2008, HU, in collaboration with other Japanese universities, hosted the G8 University Summit; a gathering presidents of universities in G8 countries as well as other countries in the world. HU contributed significantly to the adoption of the “Sapporo Sustainability Declaration” on global sustainability and the role of universities. (For details, please visit <http://g8u-summit.jp>)

# Features

HU’s ESD is a comprehensive program involving all of HU, conscious of the international expansion. In cooperation with universities and research institutes overseas and international organizations, HU provides educational programs to fully utilize the latest research results in the educational fields in which HU specializes. The programs, which cover a multitude of educational fields, are intended for not only HU students, but also overseas students, specialists, people involved in education, and the general public.

## CONTACT

### **Hokkaido University Initiative for Sustainable Development (HUISD)**

Address: N8W5, Kita-ku, Sapporo, Hokkaido 060-0808  
TEL : +81-(0)11-706-2093 FAX : +81-(0)11-706-2095  
MAIL: [office1@sustain.hokudai.ac.jp](mailto:office1@sustain.hokudai.ac.jp)  
URL : <http://www.sustain.hokudai.ac.jp/>

### **Center for Sustainability Science, Hokkaido University (CENSUS)**

Address: N9W8, Kita-ku, Sapporo, Hokkaido 060-0809  
TEL : +81-(0)11-706-4530 FAX : +81-(0)11-706-4534  
MAIL: [jimu@census.hokudai.ac.jp](mailto:jimu@census.hokudai.ac.jp)  
URL : <http://www.census.hokudai.ac.jp/>

# ESD in Higher Education

## Project “Galaxy of Learning” (Iwate University)

### Outline of Activities

Iwate University will embed ESD, not only in the environmental education classes, which have represented the core curriculum to date, but also in all the other general education classes, in order to restructure its general education program as an education program for nurturing “21st-century citizens.” The “21st-century citizens” are those who will play not only an important role in the society with their specialized knowledge, but also make a steady effort to make their society much more sustainable standing on awareness of global issues such as environmental problems. (<http://esd.iwate-u.ac.jp/>)



Shinnosuke Tama  
Vice President, Iwate University

### Background and problems

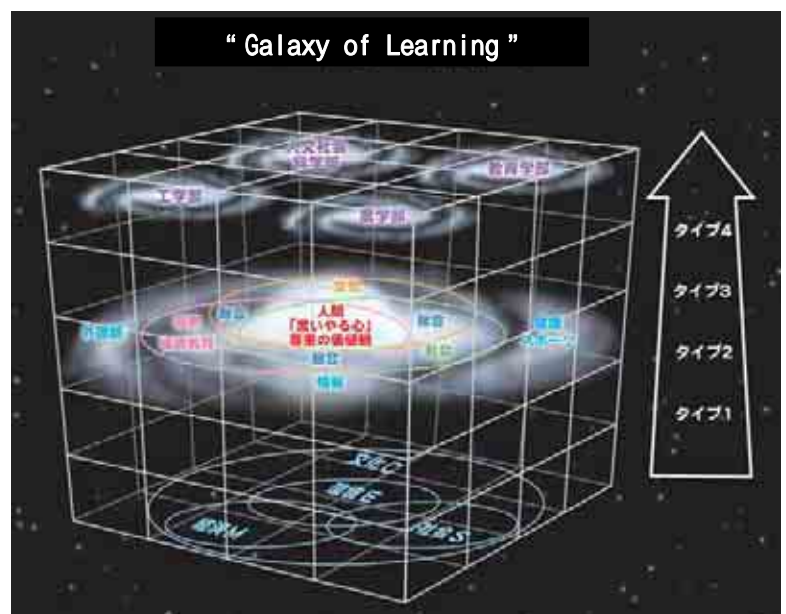
General Education of Japanese University has been declining both in quality and in quantity since 1991 when university education was deregulated and universities were given discretion to develop education programs on their own. General education curriculum covers diverse areas of classes, but that diversity has made no connections of one class with another. In short, the objective of general education as a whole has been unclear. The students, too, have been less motivated to learn through general education classes. As a result, many Japanese universities have been increasing specialized education classes and decreasing general education ones.

### Objectives and Goals

Iwate University started to restructure its general education by embedding ESD because we wanted to make the objective of general education clear. The objective of general education we want to clarify is to nurture “21st-century citizens,” who can take the complicated and global challenges such as environmental deterioration and widening economic disparities as their own problems and move to help solving them.

### Outline

- (1) The general education classes are structured in to four categories, consisting of the environment, society, economy, and culture, with four types, consisting of “the creation of interest,” “broadening and deepening of understanding,” “student participation,” and “experience of problem solving.” Students are required to select classes to study by imaging the above as an assembly of stars. This is to allow them to develop a wide view. (“Galaxy of Learning”)
- (2) New liberal arts class will be set for higher grade students with specific regional issues as theme, such as Tsunami prevention, environment improvement of Kitakami River, in cooperation with organizations outside the University.
- (3) ESD sub-major course will be introduced. ESD will be authorized in the specialized course in each faculty so that general education and specialized education will be interacted with each other. This will foster those who would take leadership to realize sustainable society.



- (4) We will promote cooperation on ESD programs with Universities in overseas and local preschools, primary schools, junior high schools, high schools.



## Implementation

A main entity of implementation of this program is the University Education Center which is a locomotive of educational reform in Iwate University. Active plans and many activities are promoted by the ESD promotion committee which is consisted of teachers who are well aware of needs for ESD in higher education.

## Fund

2006-2008 : "Support Program to meet the current education needs" by Ministry of Education and Technology

2006- : Iwate University

## Activities

### (1) "ESD Galaxy Seminar"

We hold seminars on many subjects by inviting lecturers outside University in order to promote ESD in higher education. We named this seminar the "ESD Galaxy Seminar."

( <http://esd.iwate-u.ac.jp/semm.html> )



International Symposium

### (2) International Symposium

"On Education for Sustainable Future :the roles of and collaboration among Asian universities" held at Iwate University with the participation of representatives from universities in South Korea, China, Cambodia and Thailand in August 2007.



HESD Forum in Morioka

### (3) HESD Forum in Morioka

16 Universities which have a program on ESD gathered at Iwate University and held Forum on higher education for sustainable development. Each university made presentation on its program and exchanged information and experiences.

( <http://esd.iwate-u.ac.jp/semm/hesd.html> )

### (4) School Leaders Summit on ESD in Iwate Prefecture

School Leaders Summit on ESD is held in 5th July 2008 in Iwate Prefecture. Principals of preschools, elementary schools, junior high schools, high schools and presidents of universities in Iwate Prefecture participated and discuss how to embed ESD in their education.

( <http://esd.iwate-u.ac.jp/summit/> )



School Leaders Summit on ESD in Iwate Prefecture

## Features

"Unless people around the world are happy, individuals cannot be happy." These are the words of Kenji Miyazawa, a graduate of Iwate University and a well-known writer and poet. Iwate University is seeking to embed these thoughts of Kenji Miyazawa in our general education as a core value, which is one of the most important features of the Project "Galaxy of Learning" at Iwate University.

### CONTACT

#### Iwate University ESD promotion secretary

ADDRESS : 3-18-34 Ueda, MORIOKA city, Iwate pref. (〒020-8550)

TEL : 019-621-6554

FAX : 019-621-6065

MAIL : [ginga@iwate-u.ac.jp](mailto:ginga@iwate-u.ac.jp)

# ESD promotion by Interregional Networking ( RCE Greater Sendai )

( Refer to UNU/RCE )

## Summary

Greater Sendai RCE horizontally coordinates the network of its participating regional centers. The centers conduct the following activities:

- ( 1 ) Sendai City mainly conducts environmental education and learning for cyclical society.
- ( 2 ) Kesenuma City connects elementary, junior high, and high schools to practice environmental and international education.
- ( 3 ) Osaki Tajiri develops sustainable agriculture and environmental education. The main site is around the Kabukurinuma, a site designated under the Ramsar Convention.
- ( 4 ) Miyagi University of Education (MUE) is responsible for these three regional centers and fosters research, development and teacher training to facilitate education for the upcoming sustainable society.



Takaaki Koganezawa,  
Miyagi University of Education

## Background and Problems of the Region

In June 2005, MUE organized a committee to prepare the application to become a United Nations University RCE. As MUE coordinates the region, Greater Sendai is designated as one of the first RCEs in the world.

Greater Sendai RCE consists of three regional centers and MUE. The problem is to develop a common understanding about ESD through cooperative learning both to advance regional cooperation and to manifest regional characteristics. Quarterly acting committee meetings and quarterly executive board meetings cover activity reports of the entire RCE and discuss the policy for immediate actions. We have not had enough time to discuss the reason to develop ESD in the entire RCE. However, as a result of the interregional seminar for mutual learning last year, the acting committee accepted a new region, Shiroishi/Shichigashuku in October.

We feel it is difficult to organize ESD in a sustainable way. Advancing ESD projects to a new stage continue to challenge us with new problems.

## Objectives and Goals

The network of Greater Sendai RCE moderately shares the information among regions with one or two strengths. In a few years, as regional center teaches the others its advantageous aspects, each region makes its ESD activities comprehensive depending on the for region's condition. The following goals shall be pursued.

- Citizens are involved with ESD activities to learn the meaning and image of ESD.
- Greater Sendai RCE increases the number of regional centers. Through ESD seminars for mutual learning, three regions and MUE learn with each other. By sharing experiences and positive outcomes, they are able to acknowledge other centers' activities.
- Three regions and MUE share a common problem about ESD activities: network strength the development of a cooperation project among regional centers.

## Participants and Institutions

An acting committee manages Greater Sendai ESD • RCE. The committee consists of 26 members: the representatives of MUE and three regional centers, Miyagi Prefecture, Sendai City, the Ministry of the Environment, United Nations University, private corporations and NPOs.

We also select 13 administrative staffs. They are responsible for administrative work: presenting problems in order and getting data and documents ready. There is a promotion committee in each regional center. All centers inform the acting committee of all the centers' activities.

## Funds

In the fiscal years of 2006 and 2007 the Ministry of the Environment entrusted a promotion project for the UN Decade of ESD to Greater Sendai RCE. "Igone School", a member of the acting committee, conducted an entrusted project for Japan Fund for Global Environment. The funds from this project became part of Greater Sendai's funds. Also, each regional center obtains financial help from various sources.

# Activities

## < MUE >

UNU held the 7th session its Global Seminar. UNU holds this seminar in seven regions of Japan to raise awareness of global issues in contemporary society and UN projects.

MUE played a major role in planning this seminar. This four-days meeting was held from September 20 to September 23. The theme was “Human Resource to Sustain the Earth: The Role of Education.”



(1)United Nations University Global Seminar

## < Sendai Area >

Forum for Environment, Education & Learning in Sendai (FEEL Sendai) seeks for cyclical society as it cooperates with various actors to conduct environmental education and learning. The examples of events are:

- (1) Morimori Environment Rescue Project
- (2) Sendai Environment Forum
- (3) Sustainable Future Project in Sendai
- (4) Citizen forum
- (5) Public relations of their activities and objectives



(2)FEEL Sendai Environment Festival

## < Osaki Tajiri Area >

While the Kejonuma was newly designated under the Ramsar Convention, the regional center develops sustainable agriculture, symbiosis in agriculture, ecotourism, and environmental education with the residents in the Kabukurinuma.

Also, a local NPO, Kabukurinumakko Club, mobilizes local government and the entire area to conduct projects for the environment such as environmental education at school.



(3) Migrant Birds in the Kabukurinuma in Osaki Tajiri

## < Kesenuma Area >

In the area, the board of education leads to link elementary to high schools and practice environmental and international education.

With this approach, Kesenuma City develops and practices ESD program and develops ESD in the area.

- (1) Development of systematic exploration learning program based on the region
- (2) Systematic practice to link elementary to high schools
- (3) Network with community, universities, and institutions for basic knowledge
- (4) Promotion of global perspective through cooperative learning with other domestic and foreign areas
- (5) Use of ICT to share learning beyond time and space
- (6) Promotion of international education to enhance communication abilities



(4) ESD Teacher Training Workshop in Kesenuma

## < Changes in Participants and Society >

While many people have never heard about ESD, we hold seminars for mutual-learning. We slowly increase participating regions. Shiroishi/Shichigashuku in southern Miyagi Prefecture plans to participate.

### CONTACT

The Organizer of Acting Committee for Greater Sendai ESD • RCE  
(in Miyagi University of Education)

Address : 149 Aoba, Aramaki, Aoba-ku, Sendai 980-0845

TEL : 022-214-3856 FAX : 022 - 214 - 3342 MAIL : RCE-miya@adm.miyakyo-u.ac.jp

# For Bringing Up Teachers with the Mind for ESD - The national university corporation - (Miyagi University of Education)

## Outlines

To rear men of talents who are expected to make the society for sustainable development is one of the social responsibilities for teacher training universities whose tasks are to do teacher training and in-service training. Miyagi University of Education (MUE) has been doing various things on ESD under the basis of the experience of environment education (<http://www1.miyakyo-u.ac.jp/>). In the new curricula started from 2007, Environment Education and Special Needs Education (each 2 units) are required to be compulsive, and some relevant subjects for contemporary issues (3 units) are set up, by which the basis has been built for sustainability education in the undergraduate course.

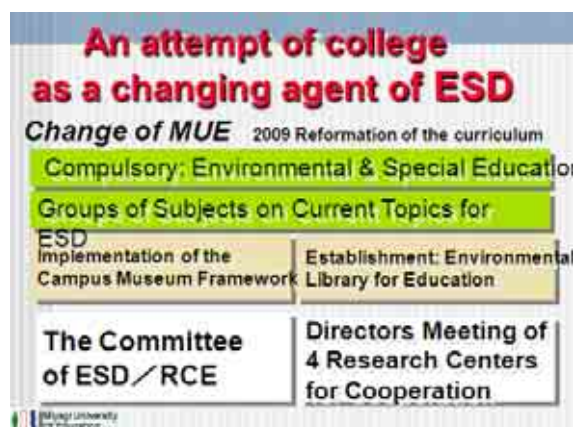


President of MUE  
KOUSUKE Takahashi

## Backgrounds

MUE is in Sendai, a city designated ordinance and an environment advance city. Around Sendai there expands primary industries such as agriculture and fishery, being blessed with affluent nature. The awareness for maintenance of natural environment and safety of food are highly developed in this region. MUE is doing activities for supporting ESD in schools, and for supporting developing countries under the joint agreements with several cities in Miyagi prefecture. Supporting schools in Kesenuma is one of the typical examples.

ESD has started in 2005, and new curricula have started in 2007. Sustainability is expressed in the new guidelines announced in 2008. ESD on UNESCO School Network (ASPnet) has been shown in the basic plan for building up education published in July, 2008. The fact that Sendai is the birthplace of the world UNESCO non-government activities contributes to develop ESD through ASPnet.



## Objectives

In MUE, four affiliated centers and the conference for promoting ESD/RCE makes efforts under the global point of view.

ESD has the close relationships with many subjects, so we'd like to make a contribution to local community, through bringing up teachers who have the mind for ESD, through the curricula, through facilities in education, through in-service training, through building up closer connections with local communities and other universities.

## Implementation

By making use of the revised curricula which has started from 2007 and aiming for making ESD penetrate among teachers, the conference for promoting ESD/RCE has been established. This is carried out mainly by the meeting for the directors of four affiliated centers, Environment Education Center, Research Center for International Understanding in Education, Special Support Education Research Center, and Center for Clinic Education.

Subject groups on Current topics	
Subject groups	Key words
1 Special Education	Specia Edu. Normalization, Coexisting, etc.
2 Adaptation Edu.	Counseling, Moral, Delinquency, etc.
3 Multicultural Understanding	International exchange & cooperation, Language and culture, etc.
4 International culture	Eastern & western culture, Tradition, etc.
5 Modern world	ESD, Kogai, Traditional/modern culture, etc.
6 Food & Health	Food, School lunch, Health Education
7 Environmental Edu.	Nature, Field activities, Energy, etc.
8 Art & Expression	Art activities, General design & administration
9 Media & Information	Information society, Homepage, Database,
10 Natural Science	History of Sciences, Mathematics & Science,

## Activities

[Sustainable Development Education in Curricula]

Under the new curricula, the classes of Environment Education and Special Needs Education are compulsive, and

some relevant subjects for contemporary issues as well as sustainable development education are set up. By these curricula, students can be expected to be teachers who gain the mind for ESD.



Butterflies garden

#### [Developing the Plan of Campus Museum]

MUE highly considers ESD important element for campus circumstances. Such policy can be seen for planning up universal campus in which all students including for handicapped students and foreign students can study to the full, and students who want to become teachers can observe nature around them. This aims to be the campus for the future, and is called the designing for “campus museum.” We attempt to create the local community in harmony with nature under the joint relationships with Sendai city and Tohoku University.

#### [ELFE]

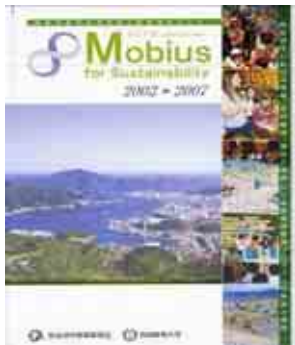
ELFE, Environmental Library for Education, has been founded to support students who are studying environment education and to support schools. (<http://elfe.miyakyo-u.ac.jp>)

#### [In-service Training]

Every year extension lectures under the theme of ESD are held for in-service training mainly by Environment Education Center. As one of the trial training series for the renewal of teacher’s license in 2008, the center carried out lecture “Reinforcing interdisciplinary sides of ESD, and gained high esteem”. It can be thought to be a good opportunity for developing understanding for ESD.

#### [Supporting Schools in Local Communities]

Miyagi University of Education has concluded the joint agreements with neighboring four cities, Kesennuma city, Iwanuma city, Tome city, and Kurihara city, taking the opportunity of passing the joint agreements with the Board of Education of Miyagi prefecture and the Board of Education of Sendai city. Through these agreements we have supported education of these four cities including for ESD. (<http://www1.miyakyo-u.ac.jp/renkei/kizuna2007.pdf>) The representative case is the environment education in Omose primary school at Kesennuma city. Such activities are collected in the leaflet, Mobius.



#### [Cooperation with Other Universities, Institutions, and Local Communities]

We precede ESD under the regional relationships with Sendai city, Kesennma city, Oosaki city and so on. This is admitted by RCE as one of the seven regions of the world advanced ESD areas proceeded by United Nations University. We have joined in ProSPER Net, the ESD network for graduate school education in 2008. Affiliated primary school of Miyagi University of Education and Miyagi University of Education have joined in UNESCO Schools, considering that UNESCO school network is highly effective for cultivating the global view at schools. We make every effort to build the ASPnet universities network, recommending some universities overseas which activate on ESD.

## Features

Almost all the staff members of Miyagi University of Education haven’t understood what ESD is, but for these several years the connection of ESD and sustainability has been recognized. ESD can be also accepted when they realize many activities they have been doing are a part of ESD. We can feel for sure that not only children but also parents can promote their interest for ESD through going ahead with it.

#### CONTACT

National University Corporation MIYAGI UNIVERSITY OF EDUCATION  
〒980-0845 149, Aramakai-aza-Aoba, Aobaku, Sendai  
TEL : 022-214-3305 FAX : 022-214-3309  
MAIL : shomu@staff.miyakyo-u.ac.jp



# Integrated Research System for Sustainability Science ( IR3S ) ( The University of Tokyo, Participating Universities and Cooperating Institutions )

## Summary

Sustainability is a key concept in any discussion of science, technology and economics in the 21st century, the Century of the Environment. And "Sustainability Science" is a new, transdisciplinary field that seeks to address the urgent problems we face in this century by developing visions and strategies to create a sustainable global society.

Integrated research System for Sustainable Science (IR3S) is a research network founded with the aim of serving as a global research and educational platform for sustainability scientists. IR3S is administered by the University of Tokyo, it consists of five participating universities - Kyoto University, Osaka University, Hokkaido University, Ibaraki University, and the University of Tokyo - and six cooperating institutions -Toyo University, the National Institute for Environmental Studies, Tohoku University, Chiba University, Waseda University and Ritsumeikan University.



(left) Dr. Hiroshi Komiyama

President  
University Tokyo

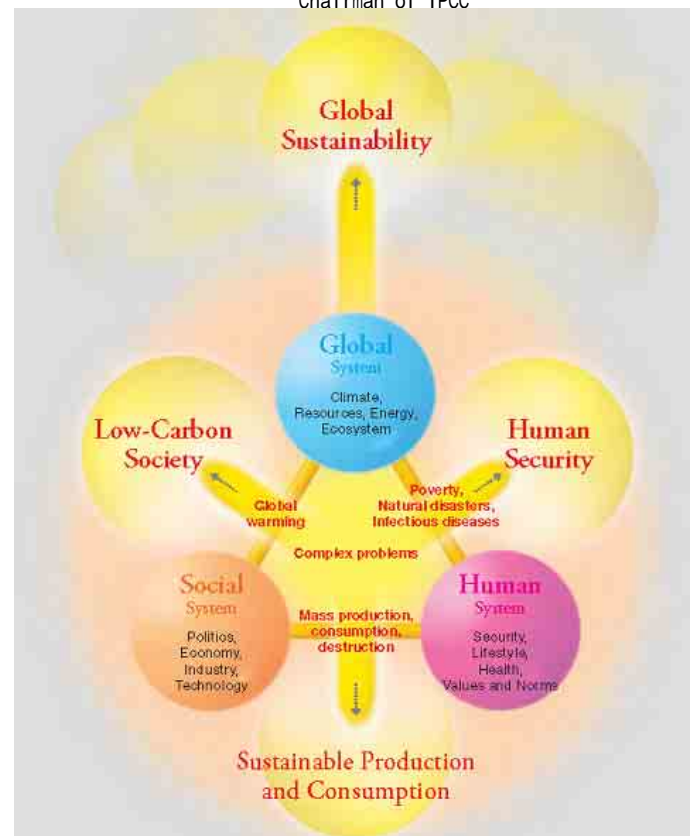
Executive Director, IR3S

(right) Mr. Rajendra Kumar Pachauri  
Chairman of IPCC

## Background

The existing academic inquiries based on the traditional reductionism are not adequate for resolving our complex and intertwining contemporary problems, and therefore we need some form of "structuring of knowledge" in order to overcome these problems. Sustainability is typical of issues that require the application of "structured knowledge". In this context, we have, with the participation of many researchers at the University of Tokyo, promoted the Alliance for Global Sustainability (AGS) with Massachusetts Institute of Technology, The Swiss Federal Institute of Technology (ETH) and Chalmers University of Technology.

Against this background, we have embarked on the creation of a new academic discipline that we call "Sustainability Science," through the establishment of IR3S, an alliance comprised of the University of Tokyo, Kyoto University, Osaka University, Hokkaido University, Ibaraki University and other universities and research institutes. Taking on a challenge of addressing global environmental and sustainability issues in the "Century of the Environment," the IR3S will promote education and research in Asia, which in every sense holds the key to understanding and solving these pressing problems. We hope to see this initiative develop into a model for academic reform not just at the University of Tokyo but in the entire academic community worldwide.



## Goals

The goal of sustainability science is to establish a transdisciplinary academic structure and foster specialists who can make an active contribution to the construction of a sustainable society on the global stage. IR3S sees as its ultimate objective the development of visions and policies for rebuilding the global, social and human systems and repairing the links between them as well as identifying the mechanisms that threaten these systems and their interconnections.

## Implementation

IR3S consists of the Planning and Administrative Headquarters, the research centers of the five participating universities, and the cooperating institutions.

The Planning and Administrative Headquarters is established as the seat of administration for unifying and

coordinating the activities of the research centers of the five participating universities and the cooperating institutions. It is responsible for general planning and administration and the administration of collaborative flagship projects, establish and operate a consortium of companies committed to sustainability, and engage in outreach activities. It engage in planning and administration in consideration of the opinions of an Integrated Research Promotion Advisory Board established by the Planning and Administrative Headquarters director and decide basic research and education policy and implementation plans. It establish an internal Strategic Research Center Development Evaluation Committee and weigh the committee's evaluation results in the pursuit of new initiatives and directions.

## Funds

It is supported by the Special Coordination Funds for Promoting Science and Technology of the Ministry of Education, Culture, Sports, Science and Technology (MEXT).

## Activities

Sustainability science by definition embraces a broad range of phenomena and principles.

The goal of IR3S is to help develop and expand sustainability science as an academic discipline, beginning with collaborative efforts by nine Japanese institutions with demonstrated potential for research and education in this field.

Emblematic of these joint efforts are the flagship projects of IR3S in the three categories of Philosophy, Research and Education.

The Research category comprises the following three flagship projects.

### < Flagship project 1 >

“Sustainable measures to mitigate and adapt to global warming”

University of Tokyo, Ibaraki University

### < Flagship project 2 >

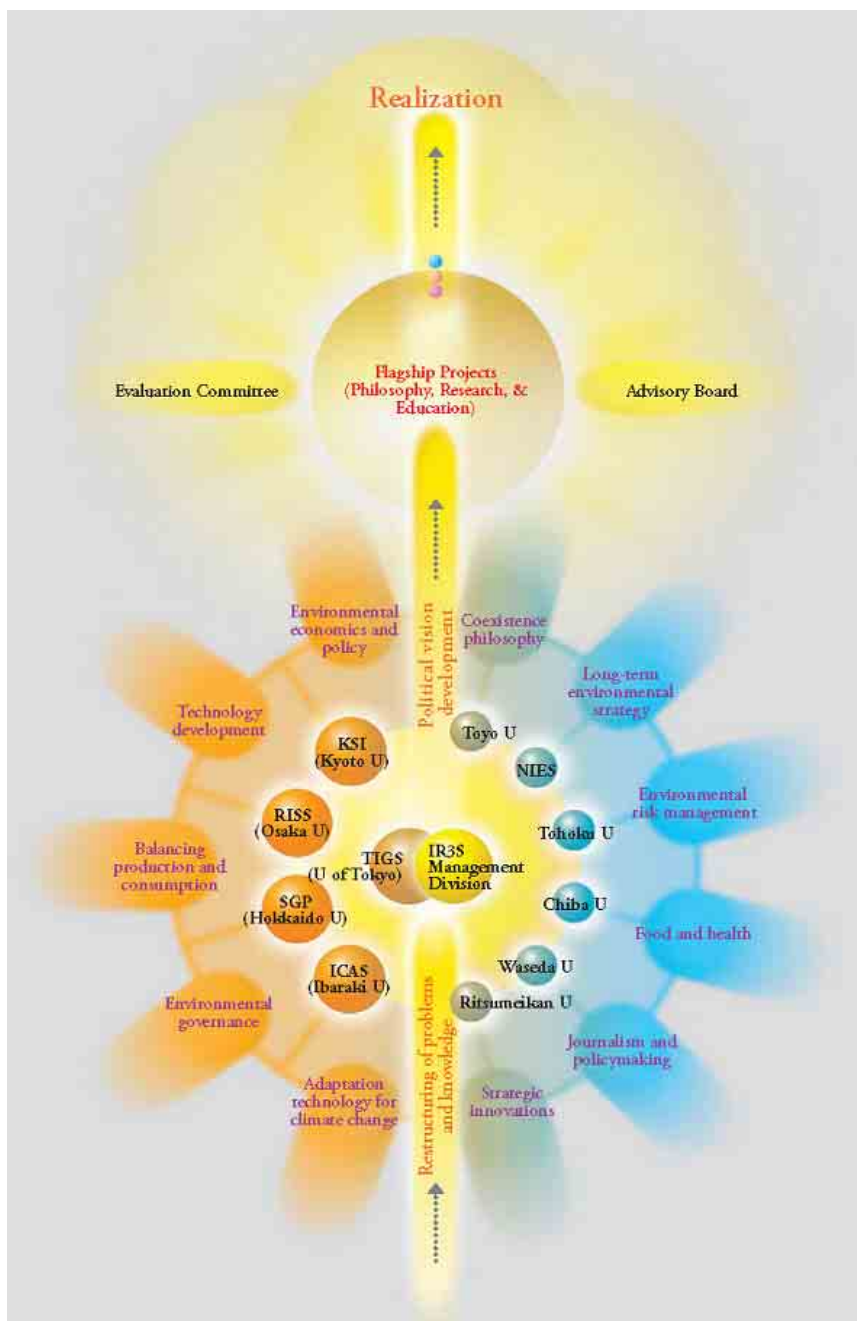
“Building a resource-circulating society in Asia”

Osaka University, Hokkaido University

### < Flagship project 3 >

“Global sustainability - conception and development”

Kyoto University



## CONTACT

Integrated Research System for Sustainability Science (IR3S)

The University of Tokyo

ADDRESS: 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8654, Japan

TEL : +81-3-5841-4834

FAX : +81-3-5841-1545

MAIL : [info\\_ir3s@ir3s.u-tokyo.ax.jp](mailto:info_ir3s@ir3s.u-tokyo.ax.jp) HP: <http://www.ir3s.u-tokyo.ac.jp/index.html>

# Promotion of ESD in Chubu area in Japan ( RCE Chubu )

( Refer to UNU/RCE )

## Summary

RCE Chubu aims to promote ESD and to create a sustainable region in "Ise-Mikawa Bay Watershed," area that covers Aichi, Gifu and Mie Prefectures.



Chair of the Steering Committee  
Prof. Tsuneo Takeuchi (Nagoya University)

## Background *Why RCE-ESD in Chubu area?*

**Geographical Factors (ethos):** The Chubu region has a diversified natural setting with rivers running through to Ise-Mikawa Bay. The down-stream reaches are heavily industrialized, while the up-stream reaches have areas where considerable environmental destruction has resulted from down-stream conditions.

**The Human Factors (ethos):** As a traditional manufacturing region, Chubu has a history of production systems that were developed with strong consideration for human harmony, and moreover has had strong inflows of foreign population required for manufacturing, making it one of the most multicultural regions of Japan.

**The Time Factors (kairos):** The region experienced the World Exposition 2005 (Aichi EXPO) and will host COP10 to the Convention on Biological Diversity in the year 2010.

## Objectives

The Chubu RCE will promote ESD activities in order to tackle environmental, economic and social problems that hinder sustainable development in the area of Ise-Mikawa Bay Watershed. The objectives of RCE Chubu are as follows:

- (1) Practical education in both formal and non-formal educational settings.
- (2) Taking a relativistic view of humans within nature from comprehensive and critical standpoints.
- (3) Creating "toolboxes" to serve ESD, including textbooks, databases, networks and teaching methods.

RCE Chubu will implement projects under the following two main perspectives:

### 1) **Spatial Perspective:** Focus on the particular spatial composition of the Chubu region

Instead of using political or economic districts, RCE Chubu adopts a natural environmental district to identify the regional center: (1) Ise-Mikawa Bay and (2) the river basins draining into Ise-Mikawa Bay.

### 2) **Thematic Perspective:** Horizontal themes based on the characteristics of the region

The Chubu RCE will emphasize the perspective of horizontal themes aligned with the characteristics of the region. The themes to be taken up will include manufacturing, energy, forest conservation, river and tideland conservation, and multicultural harmony.



The spatial and thematic perspectives of RCE Chubu

# Projects

The initial flagship project of Chubu RCE is “Ise-Mikawa Bay Watershed Project”. In addition, the project shall contribute to the Convention on Biological Diversity (COP10), collaborate with Ise-Bay Renaissance Project and Ise-Mikawa Bay Watershed -80(% of CO2) Project will be developed.

## **Ise-Mikawa Bay Watershed Project (Flagship project)**

For each of the river basins that comprise the vertical, spatial axis of the scheme, there will be a horizontal axis drawn from a wide range of thematic content. Information exchange and coordination will be fostered with a focus on local activities relating to sustainable development, which will be put into expanded practice through the project nodes. The themes to be taken up will include manufacturing, energy, forest conservation, river and tideland conservation, and multicultural harmony. The initial activities are as follows:

- Shonai River Watershed Database project
- Ise-Mikawa Bay Watershed Research project

## **RCE Chubu Biodiversity Project**

- Collaborative action plan with regional NGOs and organization engaged in CBD COP10.
- Contribution of RCE Chubu as a counselor of CBD COP10 Promotion Committee.
- Collaboration with global RCEs in the theme of Biodiversity in order to share information and seek for organizing side events during the COP.

## **Collaboration with Ise-Bay Renaissance Project**

- Establish the Research Center of Ise Bay Policy, aiming for the development of a proposal of total Bay area development policy based on field research of Ise Bay area.
- Check the activities and collaborate with Ise-Bay Renaissance Project, enacted in 2007.
- Investigations of local oriented activities of the Bay area development, and promote the collaboration among diverse stakeholders in the Ise Bay area.

## **Ise-Mikawa Bay Watershed -80 Project**

- Sharing the idea of “The Earth Charter.”
- Development of methods for the effective use of local resources such as Carbon Offset in the region based on both citizens’ and private sectors’ participatory research and evaluations.
- Development of “Ise-Mikawa Bay Watershed Inventory”.
- Establishment of methods for effective use of regional energy and resources.

### **CONTACT**

Chubu RCE-ESD Office (Chubu University)  
ADDRESS : Chubu University(Research Center)  
1200 Matsumotocho Kasugaishi Aichi Japan 487 - 8501  
TEL : 0568 - 51 - 1111 ( ex. 5711 ) FAX : 0568 - 51 - 4736  
MAIL : office@chubu-esd.net

## Practice reports from teacher-training university

### -- World Heritage Education as a tool to ESD

(Nara University of Education)

## Outline of Activities

A key term of ESD is “projects rooted in the region.” Japan has 14 World Heritage sites, and three of them are concentrated in Nara Prefecture. We have been making World Heritage into practical application as a tool to ESD based on the characteristics of this region. Moreover, as the first UNESCO Associated Schools Project Network (ASP) member-school at a university, we have created the following ESD educational content along with the attached junior high school.

We wish to report on our (1) programs as research and education activities, (2) programs of the attached junior high school, (3) “World Heritage Education, aimed at ESD” projects in cooperation with the Nara City Board of Education.



Isoo Tabuchi  
Professor at Nara University of Education

## Objectives and Goals

There is an international exchange/regional cooperation committee in the university. It aims to hold open classes and collaborative projects with the region and fulfill the role of an ESD promotion/training center in the area.

## Activities

1. Undertakings by the university: the noteworthy activities are as follows.

- (1) Holding open courses on World Heritage: Open classes for citizens have been held continuously for the past five years centered on Professor TANNO Akihiko. Through open classes education for citizens, the case has been made for World Heritage’s universality as “humankind’s treasure” and that we have the responsibility to preserve it.
- (2) Twenty subjects have been set up within the curriculum as “UNESCO School Recommended Subjects,” so this is reflected in the content of our education. In particular, field work on regional World Heritage sites are carried out by the students who have classes “Curriculum and Instruction Primary and Secondary on Social Studies, and they have been turning that into educational materials with Power Point.



Lecture by ASP International Coordinator Dr. Sigrid Niedermayer at the UNESCO Japan Workshop

- (3) In March 2007, “How Do We Accept the Education Proposed by UNESCO—Centered on World Heritage Education and ESD,” a UNESCO workshop on World Heritage Education in the East Asia Region was jointly hosted in Japan with the Ministry of Education, with about 260 participants. ASP International Coordinator Dr. Sigrid Niedermayer was invited to attend from UNESCO Headquarters in Paris, so we learned about advanced ASP programs in Europe “The Examples of Educational Material on World Heritage Education Practices” was published as a result.
- (4) In fiscal 2007, 12 staffs in charge of curriculum and instruction received the university president’s special fund to do analysis of elementary school textbook from the perspective of ESD. In addition, a joint training program was held with teachers from the attached elementary and junior high schools, to which D-ESDJ representative ABE Osamu was invited. Thus, understanding of ESD was deepened.
- (5) In July 2007, Professor TABUCHI gave lectures on the theme of ESD in “Reflections on the Teaching Profession,” a required subject in the training program under the trials for the new Teacher Certificate system. One hundred teachers—mostly in administrative positions—took the course, and there were many reactions along the lines, “I learned the basic idea of ESD for the first time and now recognize its importance.” We thereby confirmed that using the new Teacher Certificate system is effective in spreading the concept of ESD.

2. Projects at the attached junior high school: Since fiscal 2006, we have been deepening training on the theme of “Building schools based on the Idea of ESD.” From 2007, we have been holding open study conference and thereby contributing to the dissemination of ESD in the region.

- (1) We have continuously carried out “Nara Touring” for the past 20 years, which conducts fieldwork in regional Cultural Heritage. Since fiscal 2007, we have been using the “Classes of Integrated Study” to implement practical applications in line with the general ideas of UNESCO World Heritage Education to take a re-look at the region through comparisons with other World Heritage sites.
- (2) In October 2008, we held an open study conference on the theme of “classroom research with eyes on ESD.” NAGATA Yoshiyuki (Sacred Heart University, formerly of the National Institute for Educational Policy Research) gave a commemorative lecture at the event, which had 160 participants.
- (3) We held an open study conference on October 2008, on the theme of “subject learning and school events for studying the concept of ESD.” We opened to the public classes with an eye on ESD in all subjects, and held a symposium with NAGATA Yoshiyuki and KOJIMA Yujro (teacher at Kuritani junior high School in Ohtake City) invited.
- (4) From the perspective of ESD, we clarified the links with each respective subject and indicated them with a time table for curriculum that ought to be dealt with during a three-year period. Since this could be called the junior high school edition of the “ESD Calendar,” it is the first case of a curriculum frame including all subjects at the actual site of education in Japan. Practical applications, such as ESD logo mark-making by pupils, and so on were carried out as part of that.

3. Collaborative projects with the Nara City Board of Education: We have advanced “World Heritage Education” in collaboration with the Nara Board of Education since FY2007. Professor Tabuchi ascended to the chairmanship of the “Nara City World Heritage Education Promotion Committee,” which has been placed within the Nara City Board of Education. Professor MORIMOTO Koichi also bears considerable responsibility on the committee. All elementary schools in Nara City use 10-15 hours annually of the Classes of Integrated Study to develop World Heritage Learning with an eye on ESD, and engage in practices to transmit their results. Science Research Grants (Base B, Research representative: Professor Tabuchi) are to be made to these projects from 2008-10.

- (1) In February 2008, the 1<sup>st</sup> Nara City World Heritage Education Practical Research Meeting/Nara University of Education UNESCO Education Practical Study Meeting” was held jointly by the Nara City Board of Education, the Nara National Museum, and, the Japan Association for International Education, with 212 people participating.
- (2) In August 2008, we published “World Heritage Learning, which Is Beloved to Nara,” a supplementary reader for pupils to study World Heritage, and “Teachers’ Guide,” a guidebook for instructors.



The supplementary reader “World Heritage Learning, which Is Beloved to Nara”  
Published by the Nara City Board of Education

## Features & Challenges

World Heritage is an educational resource--not only tourism resource. The challenge is to create an educational content at the university that will connect cultural diversity, environmental education, human rights and peace education through World Heritage Education. Moreover, a system for developing “World Heritage Learning” was established at all elementary schools in the city with the cooperation of the Nara City Board of Education, yet how to raise the quality of practical applications will be a challenge for the future. We are planning to make approaches to the Boards of Education of all regional governments nationwide that have a World Heritage Site in 2010, and want to develop World Heritage Education, which includes ESD, throughout Japan.



Chart of the General Concept of World Heritage Education and ESD

translated by MEXT

### CONTACT

Curriculum and Instruction on Social Studies Education Office, Nara University of Education  
 ADDRESS : Takahata-cho, Nara City 630-8528  
 TEL : 0742-27-9177, FAX : 0742-27-9177  
 MAIL : tabuchi@nara-edu.ac.jp

# Promoting ESD in Higher Education

## ESD Development and Promotion: An Action Research Program (Kobe University)

### Summary

A joint project of Kobe University's Faculty of Human Development, Faculty of Letters, and Faculty of Economics, titled "ESD Development and Promotion: An Action Research Program", has been selected for the Ministry of Education, Culture, Sports, Science and Technology's Support Program for Contemporary Educational Needs (Contemporary GP Program). This program seeks to align the "search of sustainability" at the Faculty of Economics, the "search of new innovative ethics" at the Faculty of Letters, and the "search of the possibility of personal transformation" at the Faculty of Human Development. They will mutually take advantage of the qualities of each faculty, and develop a new curriculum in Education for Sustainable Development (ESD) from an action research



perspective.



Project Leader: Makoto Suemoto  
(Professor, Graduate School of Human Development and Environment)

### Background

The Earth Charter (2000) plainly shows that ESD requires an approach that incorporates a broad range of perspectives, including, not only environmental concerns, but also poverty, peace, ideology, governance & democracy, justice, human rights, health issues, and gender equities, towards sustainable development. Therefore, ESD needs not just a traditional education method of knowledge transmission, but also a new approach to solve these issues: students will go out into the field to nourish their sense of ownership and ability to solve problems.

### Goal

Kobe University aims to train the practitioners, who can understand and treat sustainable development as their immediate issues, and be active in local community. Establishing an ESD sub-course, we will foster the students who have a broad perspective, communication ability and a strong will to solve problems. After graduation, they are expected to take the initiative in various fields of society concerning ESD.

### Implementation

Action Research Center for Human Community & Development (HC Center) at Faculty of Human Development, Project Innovative Ethics at Faculty of Letters, and NPO 'Gomi.jp' at Faculty of Economics cooperate in this project, and HC center functions as the hub of their network. This structure plays a coordinating role of ESD curriculum, and engages in an effort to partner with outside frontline stakeholders so that students are able to go out into the field and have practical experiences.



### Fund

○2007-2009 : "Support Program for Contemporary Educational Needs"(Contemporary Good Practice Project )

About the Contemporary Good Practice Project

The Contemporary Good Practice Project is an educational reform program administered by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) designed to improve student education and promote good educational practices at Japan's public and private universities. [http://www.mext.go.jp/a\\_menu/koutou/kaikaku/gp/004.htm](http://www.mext.go.jp/a_menu/koutou/kaikaku/gp/004.htm)

持続可能な社会を担う人材を育成

## Activities

### (1) ESD Classes

The three faculties jointly offer subjects such as ESD Basics, ESD Theory etc.

### (2) ESD Field Seminar & Tour de ESD

ESD Field Seminar is offered for third year students. They can directly experience and learn about the various fields at stakeholders outside the university. First and second year students participate in a work-study program called “Tour de ESD” as a part of ESD Theory.

### (3) ESD sub-course & Certificate

ESD sub-course is offered by the three faculties, and students, who have acquired prescribed 12 credits, will be awarded a certificate.

### (4) Symposium

We already held ESD Symposium twice, and plan to hold the 3rd Symposium in March of 2009, inviting Professor Muhammad Yunus, Nobel Laureate in Peace in 2006.



## Features

The feature of this project is to emphasize informal education addressed through off-campus Field Seminar that is rooted in action research, as well as formal education within the university. Students test their research hypotheses on Sustainable Development, and form new hypotheses while participating in activities and practices being carried out in various fields. They are also expected to learn on their own initiative. Through repetition of this process, students will deepen their understanding of ESD by increasing their awareness of the various issues, and acquire practical expertise as an ESD practitioner.

### CONTACT

Kobe University Contemporary GP Project

ADDRESS : Action Research Center for Human Community & Development  
3-11 Tsurukabuto, Nada-ku, Kobe 657-8501, Japan

TEL : 078-803-7970 FAX : 078-803-7971 MAIL : esdkobe@koala.kobe-u.ac.jp

URL : <http://gpsed.h.kobe-u.ac.jp/>



# Establishment of a Regional Centre of Expertise on ESD in Hyogo Prefecture and development of a regional network (RCE Hyogo-Kobe)

( refer to UNU/RCE )

## Summary

We establish the Regional Centre of Expertise (RCE) on ESD in Hyogo Prefecture that is promoted by the United Nations University – Institute of Advanced Studies to promote ESD by developing a network of stakeholders in the regional community and support dispatching and exchanging information on the practices and experiences in the region through the international network of RCE's.



Secretary General: Masayuki Itoh  
(Professor, Kobe University)

## Background

Hyogo Prefecture and its ordinance-designated major city Kobe have rich experiences on sustainable development and ESD such as restoration of the forests in *Rokko* mountain range and preservation of the natural environment in *Toyooka* area motivated by the protection of white stokes which are once extinguished. The great Hanshin-Awaji earthquake in 1995 caused severe damage to the south Hyogo area including Kobe. In the rescue and recovery process, the activities by volunteers played significant roles, which led to the development of civil activities in the following period to date. Further development of such activities should have significant meaning in formation of sustainable society in Japan as well as in the region. We also believe that disaster prevention/mitigation should be included in the concept and efforts toward sustainable development as one of the key elements, and that RCE Hyogo-Kobe should be able to make a significant contribution.

## Objectives

The purpose of establishing RCE by the UNU is to promote ESD starting from regional communities with the scope including environment, society, and economy. Wide range of organizations and people from schools, universities, institutions for social education, civil organizations, local governments, industries, and mass media in the region participate in and promote information and knowledge sharing, creating a platform for dialogue, and producing new collaborations toward sustainable society. Having these in mind, RCE Hyogo-Kobe set up the following objectives.

- We will create a platform of dialogue between various stakeholders of ESD in the region, and enhance the social capital that works as the fundamentals for the sustainable development.
- While including the environmental education as the essential element, we will make efforts to integrate the ESD with wider scope in formal and non-formal education and enhance regional people's awareness and activate practices on the sustainable development and ESD.
- We will aim at transforming education and learning through dissemination and extension of ESD (from knowledge-transfer type education to active learning through actions and experiences in finding problems and solving them, and/or to education that lead people to recognize complexity of the problems and enable critical thinking)
- We will integrate disaster prevention/mitigation as one of the key elements of sustainable development, and create and disseminate culture of disaster prevention/mitigation.

## Implementation

RCE Hyogo-Kobe is an open network organization and the member institutions will increase as it develops. The key institutions at this stage are the following;

Kobe University, Museum of Human activities and nature, Hyogo Environmental Advancement Association, JICA Hyogo International Center, Hyogo International Association, Asian Disaster Reduction Center, United Nations Centre for Regional Development Disaster Management Planning Hyogo Office, Kobe City Board of Education, Kobe Shimbun (newspaper), Sun Television

These are the main members of the steering committee of RCE Hyogo-Kobe. The secretariat office is set up at the Action Research Center for Human and Community Development, Graduate School of Human Development and Environment, Kobe University.

## Fund

Since RCE Hyogo-Kobe is a network organization, it does not have its own funds; its activities are supported by resources of the member organizations. In some areas, they apply and gain grants for activities in fields related to ESD. The secretariat function is being taken upon mainly by some staffs of Kobe University.

## Activities

Major activities in 2007-2008 periods are as follows;

- (1) Creation of platform of dialogue between regional ESD stakeholders
  - ESD forum “Sustainable Society spun out of learning”
  - Support to meetings (Kobe University ESD symposia, 1<sup>st</sup> “Groping for the depth of the concept of ESD – what is necessary to promote ESD?”, 2<sup>nd</sup> “Rearing leaders for the sustainable society from Japanese youth – message from Kobe to the world; EUIJ Kansai workshop “Environmental education in EU and Japan”)
- (2) Development of ESD program in higher education at Kobe University focused on participatory action research
- (3) Support to civil activities in the regional community through the expertise of each member institutions (environmental conservation, community building, disaster mitigation, international understanding etc.)



The 1st ESD Forum (March, 2008)

Following are the flagship projects;

- (1) Creation and dissemination of culture of disaster prevention/mitigation: Having the experiences from the Great Hanshin-Awaji earthquake and the recovery process, we will strain to create and disseminate “culture of disaster prevention/mitigation” rooted in people’s daily life through collaboration with the international organizations and research institutes in the region.
- (2) Promotion of dialogue and collaboration between scientists and citizens: Science café on themes related to Sustainable development and ESD, support to environmental research by citizens, networking of science communication activities in the regional community

### CONTACT

Secretariat office, RCE Hyogo-Kobe (Action Research Center for Human and Community Development, Graduate School of Human Development and Environment, Kobe University)  
Address: 3-11, Tsurukabuto, Nada-ku, Kobe, Hyogo, 657-8501, Japan  
TEL : 078-803-7758 (Secretary General : Masayuki Itoh)  
FAX : 078-803-7761  
MAIL : mitoh@kobe-u.ac.jp

# Collaboration between “ UNESCO Chair ” at Okayama University and Local Stakeholders for ESD (Okayama University)

## Outline

Okayama University was accredited on April 2007 by UNESCO as UNESCO Chair in Research and ESD, whose application had been filed through Japan National Commission for UNESCO in 2006, and UNESCO Chair at Okayama University has been undertaking ESD projects both within and outside of its campus. The Programme of UNITWIN/UNESCO Chair of UNESCO aims to promotion of North-South and South-South cooperation through international university collaboration.



Dr. Hirofumi ABE,  
Dean, Graduate School of Environmental  
Science, Okayama University (Chair-Holder,  
UNESCO Chair at Okayama University)

## Background

Okayama region is one of the initially designated 7 of the Regional Centres of Expertise on Education for Sustainable Development (RCE) by United Nations University on June 2005. While RCE Okayama was coordinated by municipalities, schools, NGOs and civil society organizations, their collaboration with higher education institutions has not been enough. The establishment of UNESCO Chair at Okayama University has facilitated the university’s involvement as a whole to ESD efforts and its collaboration with RCE Okayama stakeholders. The below-mentioned chart indicates that the core entities and partners have been regularly collaborating for formal education and non-formal education, as well as in the field of international and interregional cooperation.

## Objectives and Goals

UNESCO Chair at Okayama University, in line with the United Nations Decade of Education for Sustainable Development (2005-2014), aims as follows;

1. Foster experts who will work for international agencies and United Nations agencies in environment-related fields, and who will contribute to creating a sustainable society on a global level in the future;
2. Foster experts who will become engaged in activities to create an appropriate environment for realizing a sustainable society on a local level.
3. Create a curriculum to contribute to sustainable society construction on a local level as well as at a global level;
4. Undertake practical education to transfer knowledge and technology related to environmental management for developing countries through inter-university collaboration.



## Organization and Partnership

UNESCO Chair at Okayama University is managed as a campus-wide organization of Okayama University. The vice-president of Okayama University serves as a chairperson of the organization and the dean of Graduate School of Environmental Science serves as a Chair-Holder of this UNESCO Chair. The Managing Committee consists of professors, as well as officials of municipalities and experts of partner organizations, and the Steering Committee under advice of the Managing Committee considers the ESD activities at all the sections of international activities, communities’ engagement and curriculum development and management. Okayama University concluded the cooperation agreement with Okayama City Hall for ESD promotion, and thus professors of Okayama University have been engaged in the management of RCE Okayama activities.

## Fund

It has been funded by the University’s own resources, and fund-raised from the Ministry of Education, Culture, Sports, Science and Technology (MEXT), and main resource is the special education and research fund for collaborative activities “Development of Environmental Experts: Creation of International ESD Centre via UNESCO Chair program”(2007-2009). The funds from Support Program for Improving Graduate School Education are being utilized, and some activities are supported by fund-in-aid projects of Asia/Pacific Cultural Centre for UNESCO.

## Activities

### (1) ESD collaborating with community based groups

The feature of RCE Okayama is the collaboration among the civil society organizations, like Okayama ESD Promotion Commission, Kyoyama ESD Promotion Commission, Conference of Okayama International NGO Network (COINN), etc., in order to promote environmental education and international understanding. RCE Okayama has also been cooperating with other RCE entities domestic and overseas. UNESCO Chair at Okayama University has been providing some advice for the organizations, and has also cooperated with international collaborative activities. Especially, Okayama University hosted the ESD International Conference 2006 and Kominkan Summit in Okayama 2007 in collaboration with NGOs.



“Kominkan Summit in Okayama 2007”

Another feature of ESD efforts in Okayama has been the Kominkan-based activities. UNESCO Chair at Okayama University has been cooperating with Kyoyama ESD Promotion Commission, which is administered by Kyoyama Kominkan, and has been conducting Environmental Survey projects, regional ECO tours, ESD Festivals, ESD Summits and workshops, aiming at promotion of educational capacity of civil society organizations and raising awareness of importance of ESD.

### (2) Collaboration with other universities domestic and overseas

Okayama University has participated in the networking of Higher Education for Sustainable Development (HESD) forum, which aims to facilitate information and experiences sharing and exchanges on ESD introduction to university education. In addition, Okayama University has participated in the project of United Nations University Institute of Advanced Studies: Promotion of Sustainability in Postgraduate Education and Research Network (ProSPER. Net), established on June 2008, and organized the university student exchange program in the field of urban and rural development and ESD with Tongji University of China.

### (3) Curriculum and Program Reform by ESD introduction

In line with introducing ESD into foundation course of Okayama University, it has designated on 2008 “ESD related subjects”, while the pamphlets outlining them and briefing ESD were distributed to all the new comer students at undergraduate and postgraduate courses. At the postgraduate course, an ESD basic subject was opened both at master’s and doctor’s courses, and special lectures by foreign visiting professors and practical sessions and internship programs for ESD were also introduced. In 2008, the program of “Human Resource Development program for Environmental Rehabilitation in Asia: Integration of Studies of the Establishment of Sound Material-Cycle Society and Education for Sustainable Development” of Graduate School of Environmental Science was adopted by MEXT for its Support Program for Improving Graduate School Education. Under this program, the Graduate School has established the new course based on ESD. In addition, the Okayama University ESD Research Forum was established within its campus, to raise awareness of faculties, staff and students on ESD, and ESD experts were invited for lectures.

### (4) Collaboration with formal education from primary to secondary

A working group on ESD promotion methods was established by Okayama Municipal Government and Okayama University, to mainly promote ESD at formal education and discussing for development of the school curriculum. Yakage High School and Okayama Ryukoku High School in Okayama joined the network of UNESCO Associated Schools and promote ESD, in collaboration with UNESCO Chair at Okayama University.

### (5) Human Resources Development in the environmental field in developing countries

Okayama University established its branch office at Hue University, Vietnam, and launched the master’s course on Agriculture and on the Environmental Management at Rural Area. The university concluded the memorandum on cooperation for environmental management and economic development with the government of Republic of Palau, and launched a human resource development project.

## Features & Challenges

Collaboration among Okayama University, Kominkans, municipalities, and civil society organizations has been recognized as a good practice for ESD promotion. However, there will be more rooms for ESD introduction into primary and secondary formal education, especially through collaboration among formal and non-formal education institutions, and UNESCO Associated School projects can be one of the best tools in this regard.

### CONTACT

The Secretariat, UNESCO Chair in Research and Education for Sustainable Development at Okayama University

Address: 3-1-1 Tsushima-Naka, Okayama City 700-8530

TEL : +81-(0)86-251-8005 FAX : +81-(0)86-251-8021

MAIL : unesco@cc.okayama-u.ac.jp URL : <http://www.esd-okayama-u.jp/>