

ESD Campus Asia

In Hokkaido University



Program & Abstract

Program for ESD Campus Asia Project

August 19, 2013 ~ August 26, 2013

**Hokkaido University
School of Education**

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ESD Week at a Glance

ESD Campus Asia Project (Hokkaido University Week)							
Date		10:00 ~11:30			13:00 ~15:00	15:15 ~16:15	16:30~
8/18	Sun	Arrival					Welcome Reception
8/19	Mon	Campus tour	Lunch	Guidance			Cultural Exchange
8/20	Tue	Lecture 1 & 2	Lunch	Workshop (1)			Cultural Exchange
8/21	Wed	Lecture 3	Lunch	Workshop (2)			Cultural Exchange
8/22	Thu	Lecture 4 & 5	Lunch	Workshop (3)			Cultural Exchange
8/23	Fri	Lecture 6	Lunch	Workshop (4)			Cultural Exchange
8/24	Sat	Excursion (Option)					
8/25	Sun	Free					
8/26	Mon	Preparation	Lunch	Presentation with Discussion			Farewell Party

Workshop includes group discussion (13:00~15:00) and short presentation (15:15~16:15).

Guidance & welcome party will be held on **the 3rd floor of School of Education**.

Farewell Party will be held at **the Faculty House, Enreiso**.

Program:

Agenda 1: Health & Sustainable Society

1st day

Lec.1: Social Determinant of Health (Prof. Kawaguchi)

Lec.2: Physical Activity & Health (Prof. Mizuno)

Agenda 2: Reorientation of Education

2nd day

Lec.3: Sustainable Competence on Future Planning (Prof. Tschapka & Kim)

Agenda 3: Alternative Views on Technology, Culture, and Sustainability

3rd day

Lec.4: Cultural Aspects of Science and Technology in Modern Societies (Ass. Prof. Tsuchida)

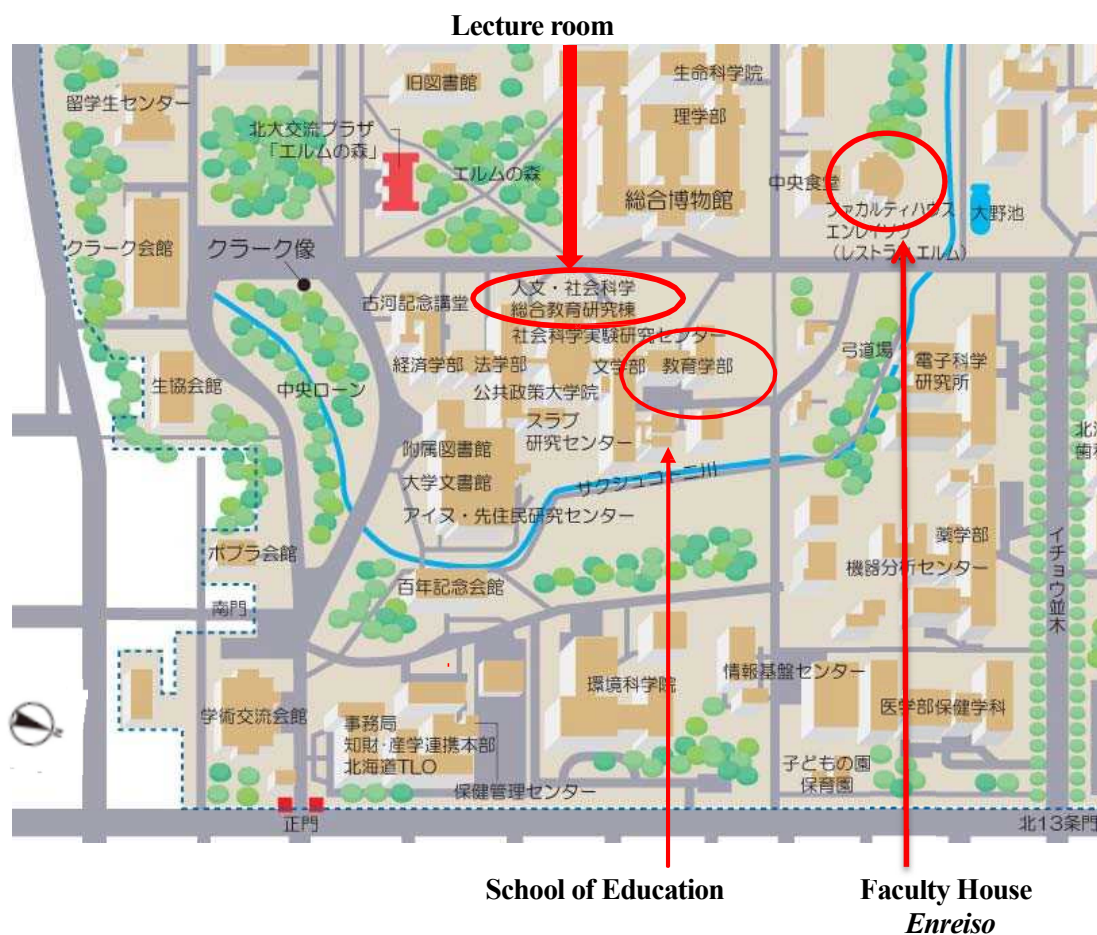
Lec.5: Sustainability and Indigenous Peoples (Ass. Prof. Gayman)

Agenda 4: Symbiosis with Nature

4th day

Lec.6: Building a sustainable fishing community in the post-tsunami recovery of Kesennuma Fishery
(Ass. Prof. Ishimura)

- (1) Topics associated with ESD will be explained by an academic member. All lectures (except for lecture 3) will be given in room **W410 (4F)** of West-building (A general seminar building for humanities and social sciences) in Hokkaido University.
- (2) Subsequently, participating students will be split into 4 groups, and discuss freely on related issues, including research using the internet (e-journals) and library. Graduate students will help and support your learning as a facilitator in some sessions. Small-size meeting rooms (**5F = W509, W510, W511, W512, W513 and W518**) are prepared for group discussions.
- (3) Summarize your group's discussion in writing.
- (4) Select one member of the group as a speaker, and give a short presentation (less than 10 minutes) to share your thinking and research results with other participants. Short presentations are performed in room **W410**.



Farewell Party on August 26th at Faculty House, Enreiso

August 19 (Mon)

13:00~15:00

Guidance & Significance of ESD

Guidane

presented by Prof. KAWAGUCHI Akito

Health Science

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We are in the midst of fear and anxiety associated with the crisis triggered by global warming. At the same time, burst increase of human population over centuries on the earth has disturbed ecosystem. Unprecedented climate disasters such as heavy rain and storm have cost a number of human lives. However, the present problems for sustainable existence we confront are originated from modern society characterized by mass production, mass consumption and mass disposal, and are completely interlinked with our lifestyle and social structure based on not only economic activity, but also culture, science, and education. On the other hand, recent worldwide turmoil to call for a solution on poverty or the widening gap of inequality between haves and have-nots might represent that modern society has continued to produce various kinds of social gaps such as income, health, education, race and gender. Education is responsible for the present condition, because of its role to bring up experts for building and maintaining the modern society, and is also involved in finding out the ways to cope with the critical situation.

Although there is a wide range of interpretations of ESD, we are going to spark up the debate on the important role that education plays in the process to implement possible solutions. Sustainable development depends not only by the preservation of nature with ecosystem, but also on human activity to control and regulate natural resources. Moreover, it is also related to the improvement of social system associated with inequity and injustice among people.

This project emphasizes and focuses on the importance of pedagogical approach that plays an essential role in sustainable development of society, and aims to build a concrete step to form “ESD Campus Asia”, where Asian students who are responsible for next generation learn together. The project thus aims to support building human networks based on mutual trust and respect. To achieve the aim, we will provide an opportunity to international students to discuss and consider the functions of education to overcome the human-made crisis, critically analyzing the past. At the same time, we will foster future human resources to be capable of addressing the task of achieving the sustainable development of society.

Primary goals of the project:

First, to recognize the significance of education that plays a central role in sustainable development of society.

Second, to acquire the global public-mindedness with human right to live together based on interdisciplinary and scientific knowledge beyond the conflict of interest among nations.

Third, to foster ability and insight for closing any gap that exists in any society as a gradient.

Fourth, to build an international human network to address ESD and cooperate with each other in the future.

プロジェクトの目的と目標

現代世界は、地球温暖化や生態系の攪乱に触発された人類の将来への生存環境への不安の只中にある。しかしその根源は、近現代社会における科学を含めた人間の活動パラダイムに基づく。本プロジェクトは、その克服の唯一の方法である ESD (Education for Sustainable Development of Society) を中心的主題として、持続的な社会の形成に果たす教育の役割に関する課題への関心を喚起する。持続的発展は、人間の生存環境に影響をおよぼす自然環境の劣化や地球資源の過多のみに依存しているのではなく、その資源を評価し、利用・活用を制御する人間社会に一義的に依存している。今日直面している自然環境の劣化は、人間社会の大量生産と大量消費、生活習慣・態度、あるいは発展のために多くの人材を輩出した教育機能に支えられ、その社会構造はまた、経済格差や、健康格差、教育格差や性・人種差別を宿す社会でもある。持続性の危機は、自然環境劣化を生み出した社会そのものに起源し、同時平行的に生活環境・人間関係の脆弱性と連動し、それらは固有な社会の文化、健康への態度、生活様式や教育制度という社会の構造的な要因によっても支えられている。すなわち、自然環境の保全のみで社会の持続性が担保される訳ではなく、むしろ現代社会が孕む危機は、次世代への教育機能、人間の再生産や豊かな生を育む健康行動、平和を保障する市民性や人権への確信、あるいは公正や正義に関する倫理的観念など、多様な社会的側面に規定されたものである。

上記目標の達成のために、多元的価値観の尊重とともに、過去の批判的継承に基づき、人類の危機を克服するために果たすべき教育機能への議論と考察を深め、普遍的な価値について議論しうる人材を養成する。歴史的、文化的に共通項の多い東アジアの次世代を担う学生たちに、多文化的(multicultural)な学生・教員との国際的かつ積極的な交流を通して、多様な価値観を有する世界のなかで、アジアから発信する社会の持続性に関するあらたな価値観の形成、国際感覚の涵養および将来的にも継続的かつ国際的に交流し、また活躍しうる人脈の形成を支援する。

本プログラムの主要な到達・獲得目標は下記である。

- ①社会の持続的発展が、人類の地球上の自然を含む生存環境を利用し、制御する社会の構造そのもの—したがって一義的には人間の教育—に依存しているという認識と確信の醸成
- ②社会的発展の利害が錯綜する国際社会における学際的かつ科学的認識に基づく相互共生のための世界的公共精神の獲得
- ③いかなる社会にも勾配として存在する多様な社会格差是正への思考力と行動力の涵養
- ④将来に向かって共同して課題解決に向かう国際的人脈の形成

August 19 (Mon)

13:00~15:00

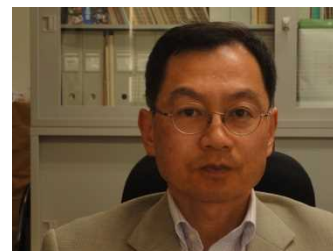
Guidance & Significance of ESD

Rethinking Peace from the view point of “Hokkaido”

presented by Prof. MIYAZAKI Takashi

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Hokkaido has a special historical feature as the domestic colony of Japan hence surplus population moved in this area. They were called “pioneer”, but actually they were excluded from their villages. Because of the deployment of resource exploration, indigenous culture was destroyed.

Before WWII, the economic system was established by rampant violence. It started with plundering land and fishing ground from Ainu people, and constructing roads and railways by using forced labor. These laborers were called Tako (=octopus) workers. During WWII, lots of young Koreans were forced to work at mining, construction sites and factories of which Japanese workers had been transformed to become soldiers. There were numerous victims including Korean and Chinese workers.

After WWII, Japanese government started the reclaiming policy for the return of people from colonies overseas. However, because the lands given were poor, most of them had to leave there without success.

Thus, violence appearing in the modern society is inscribed in the history of Hokkaido. At the same time, Hokkaido has been an arena for people who are against such violence and also for those who are learning and practicing to promote peace. In this session, referring to these movements (learning movement by workers and farmers, “my pace daily” movement, and learning movement by unearthing the remains of victims), we shall consider sustainable society based on the right to live in peace.

Key words:

domestic colony, violence, the right to live in peace, “my pace daily” movement, learning movement by unearthing the remains of victims

「北海道」から平和を考える

北海道は日本の中でも内国植民地という特殊な歴史的特徴をもつ。植民地は、開拓者という名の過剰人口の受け皿であり、資源の収奪と土着の文化の破壊が繰り返された場所でもある。戦前の北海道では、暴力による経済システムの構築が展開した。先住民族であるアイヌからの土地や漁場の収奪、囚人による道路建設、タコ部屋という名の強制労働による鉄道建設に始まり、戦争によって労働力が不足すると、多くの朝鮮人労働者が炭鉱や社会資本建設に動員され、犠牲者も多く出た。戦後には、海外の植民地から引き揚げてきた人々による緊急開拓も実施されたが、劣悪な土地条件のためにその多くが離農に追い込まれた。

このように北海道は、その歴史に現代社会の暴力性を深く刻み込んでいる。同時に北海道は、そのような暴力性を乗り越え、平和を希求する学習と実践が繰り返された地域でもある。このセッションでは、そのような取り組みを参照しながら、平和のうちに生きる権利に基づいた社会創造としての持続可能性について考えたい。

August 20 (Tue)

10:00~11:30

ESD International Agenda 1 Health & Sustainable Society

Lecture 1: Social Determinants of Health

presented by Prof. KAWAGUCHI Akito

Health Science

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About 60% of world death today is caused by chronic disease which primarily depends on lifestyle in modern society characterized by industrialization with economic development. As a disease or illness appears in an individual, the term “health” has been perceived to be a state of individual condition defined as absence of disease or infirmity. However, our health is affected by a variety of social aspects, not only economic status, but also education, gender, occupation, culture, social norm and human relationship. As far as “health” is affected by those structural factors in society, health is not only a social interest, but also a challenge of social sustainability.

In 19th century in England, public health had been a movement to change the society for the poor or the labor as a crowd. It required their health as one of fundamental human rights, which was rhetorically established in preface of WHO constitution in 1948. However, today, societal aspects such as climate disaster by global warming, pollution by industry, widening gap of socioeconomic status, and stress in competitive society are threatening our health more than ever.

This lecture takes two topics. As social competitiveness intensified, widening gap of socioeconomic status provide serious impact in mental health of people. Mortality rate by suicide has been drastically increased in recent Japan & Korea, since Asia financial crisis in 1997. WHO warns that social injustice is killing people on a large scale. On the other hand, as sense of beauty expanded, Japanese young girls with child bearing age have become excessively slender. Young girls who grow poorly, become stunted women, and they are likely to give birth to low birth weight baby (LBW: define as just at birth less than 2,500g) who may be likely to continue the vicious cycle by being stunted. Moreover, LBW is well recognized worldwide to be vulnerable to lifestyle-related disease in their later life. This phenomenon has been known as DOHaD (Developmental Origins of Health and Disease). How should we cut off the vicious cycle and what point we should intervene in the process for sustainable human reproduction? Let's consider what is responsible for such society, in order to actualize sound and sustainable society. How can we reconcile our health and economic growth?

- i) Recognize characteristic changes of modern society associated with health.
- ii) Consider about how to close health gap and to reconcile economic development and our health.
- iii) Recognize body composition and physiological significance of body weight.
- iv) What do you mean by health ?

Practical work:

Measure your body components (such as protein, muscle, fat, minerals and so on) by non-invasive bioelectrical impedance analysis (for a few minutes). Graduate students help you to measure.

Further reading:

(1) Suicide

OECD Health at a glance, 2011; <http://www.oecd.org/health/health-systems/49105858.pdf> PP.34-35, 2011, OECD WHO, SUPRE: http://www.who.int/mental_health/prevention/suicide/suicideprevent/en/index.html, 2012

(2) DOHaD

Baker et al.: The fetal origins of adult disease, BMJ. 2001 February 17; 322(7283): 375–376.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1119617/>

Ramakrishnan et al.: Role of intergenerational effects on linear growth. Journal of Nutrition, 129 (Suppl.2) S544-S549, 1999; <http://jn.nutrition.org/content/129/2/544.long>

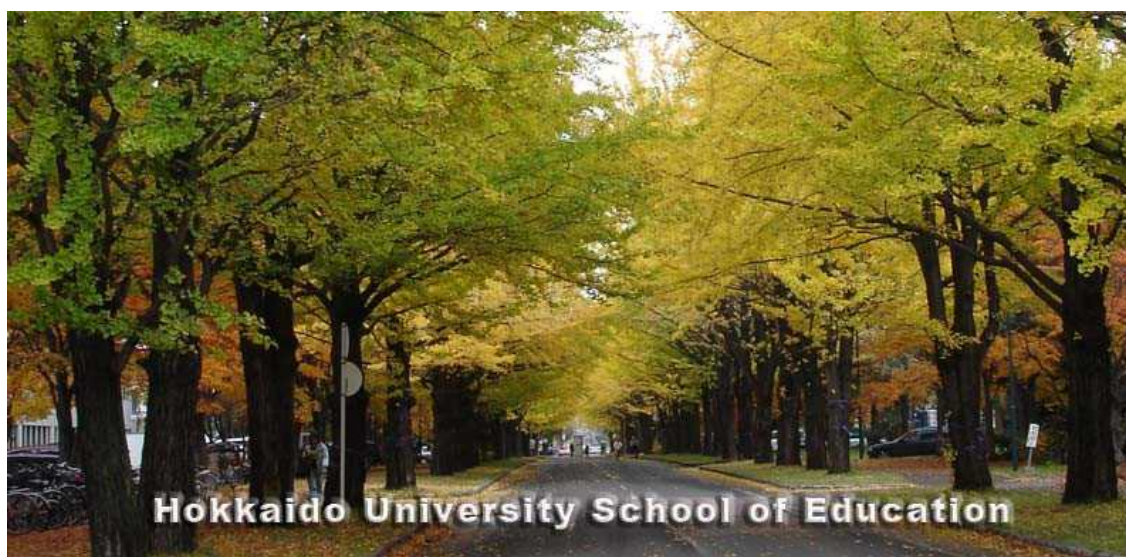
OECD Health at a glance, 2011; <http://www.oecd.org/health/health-systems/49105858.pdf> PP.38-39

講義 1 健康の社会的規定要因

世界の死因の 60%は生活習慣病であり、それは近代社会の高度な産業化と経済発展に依存している。疾病は個人に表現されるため健康は個人的事象とかがえられがちであるが、それは社会家いざの状態や教育、職業などに関連したものである。したがって健康とは社会的課題である。

19 世紀のイギリスの公衆衛生運動は貧困層のための社会改革の運動であり、それは人間の基本的人権を求めものであったが、WHO は 1948 年にそれを明文化した。しかしながら依然として、気候変動、環境汚染、格差の拡大、競争社会ストレスなど、社会的構造は依然として私たちの健康を脅かしている。

この講義では健康や生存に影響する深刻な社会的規定要因としての二つの話題を取り上げる。近年の東アジア、とくに韓国と日本では 1997 年のアジア通貨危機以降、自殺率が上昇している。WHO は社会的不正義が大規模に人を殺しているとの認識を示している。一方で、日本では、若い女性の痩身とそれにともなう低出生体重児の増加がつづき、これが世代を超えて受け継がれることが知られている。さらに低出生体重児は将来の生活習慣病のリスクが上昇することが世界的に知られるようになった。健全は持続的社会とはどのようなものか、上記の話題から考えよう。



August 20 (Tue)

10:00~11:30

ESD International Agenda 1

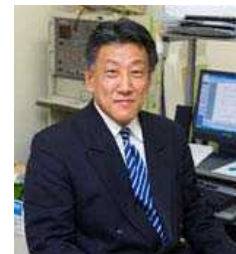
Health & Sustainable Society

Lecture 2: Physical Activity and Health

presented by Prof. MIZUNO Masao

Physical Fitness Science

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In Japan facing a super aging society with a declining birthrate, it appears an extremely important task to rebuild health promoting programs for obtaining a society with sustainable development. In concerning world-wide health obstructing risks, WHO estimates that cerebro-/cardio-vascular diseases and depression take over in 2020 instead of respiratory/digestive infections and perinatal diseases, those used to be the risks among under-developing countries in the end of 20th century. While a construction of active living has shown to be the most powerful factor for preventing and improving lifestyle-related diseases, it seems to be so hard to develop the ability for building active life as a person. In and throughout this program, it is expected that common and independent health problem(s) among four representative Asian countries will become clarify, and the discussion and debate will take place for reconstructing future health education.

1) To understand the interrelationships between health and physical activity in terms of the survival, the protective, and the developmental level.

2) To recognize socioeconomic status disparity inducing health status disparity to be approached by the present status of overweight/obesity and weight-loss/slimness

Reading:

WHO Global status report on noncommunicable diseases 2010

http://www.who.int/nmh/publications/ncd_report_full_en.pdf

Key words:

Physical activity, aging society, fitness, lifestyle-related disease, health education, nutrition

講義2 身体活動と健康

少子化と超高齢化社会に直面している日本において、社会問題に対応した健康教育の再構築が持続可能な発展を遂げる社会の創造にとって極めて重要な課題である。20世紀末における世界的な健康阻害要因として挙げられた発展途上国における呼吸器系・消化器系感染症と周産期疾患に代わって、2020年代に向けては先進国で先行されていた脳・心臓循環器系疾患と精神的疾患が世界各國の共通の健康問題となることが世界保健機構(WHO)により予想されている。日常を活動的に過ごすことが生活習慣病の予防と改善にとって最も効果的であることが明らかにされてきている一方で、健康主体である個人が運動を習慣化できる力量の形成は困難な様相を示している。本プログラムを通して、代表的アジア3諸国に関わり共通する健康問題と各国独自な問題とを明らかにして今後の健康教育の課題についての議論が期待される。

August 21 (Wes)

10:00~11:30

ESD International Agenda 2

Reorientation of Education

Lecture 3 : Sustainability Competencies on Future Planning

Presented by Prof. Johannes TSCHAPKA & KIM Tae-Yeon
(Seoul National University)
**Competences and Curriculum,
 Environmental Education**
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Education for Sustainable Development in the international debate is primarily oriented on solving problems instead of just collecting and memorizing facts and figures. Second, a central feature of ESD lays in its future orientation and its normative fundament in Human rights. As a matter of fact future can only be created by humans. Therefore the 'Brundtlandt report' opens with an interesting sentence: 'The Humanity has the ability to make development sustainable' (United Nations, 1987, Our Common Future) We have to figure out what is the Common Sense on Sustainability across the globe and what has to be negotiated and how can future be negotiated?

In the workshop we will use a kind of Scenario Technique. Knowledge has to be contrasted by experiences of the past and by estimations of future scenarios. In developing future scenarios and a clear definition of development paths students can lay a basis for democratic arguing, negotiating and deciding. Even normative settings of our Human Rights, based on liberty and equality have to be negotiated continuously. Sustainability comprises these ideals and requires specific competencies of students to anticipate a sustainable future.

The Scenario Technique is primarily a scientific approach to estimate best and worst or alternate developments in the future based on view points of different disciplines and judgement by arguments. The students are requested to use their personal education and learning processes as students of diverse disciplines (teachers, engineers, community organisers, lawyers,...) as a basis for the scenario development. It acquires knowledge and understanding to anticipate the context in which the students will have to act due to their disciplines. In three phases of the Scenario Technique students have to quest 30 year trend estimations for consistency, plausibility and tendentious presumptions. It is highly self-reflective and analysis current social discourses. Despite its future orientation, Scenario Technique offers real interdisciplinary work and collaboration among people of different cultures.

August 22 (Thr)

10:00~11:30

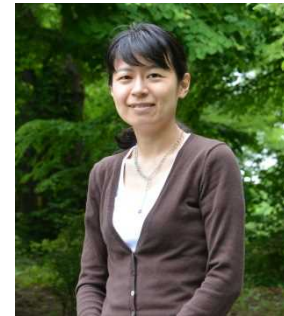
ESD International Agenda 3

Alternative Views on Technology, Culture, and Sustainability

Lecture 4: Cultural Aspects of Science and Technology in Modern Societies

presented by Ass. Prof. TSUCHIDA Eiko

American Studies
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It is generally assumed that science and technology are based on objective observations, measurements, and analyses, and that these features make them universally applicable to societies with different history and culture. This assumption has been partially proved true by the proliferation of scientific research and technological innovations that are taking place in non-Western nations, even though the origins of modern science and technology are mostly Western ones. It may be too naïve, however, to assume that science and technology are free from cultural influences and limitations of the society concerned. Far from it: the pursuits of scientific and technological achievements often reflect particular desires that stem from the cultural context of the society at a given time.

In this lecture, I would like to discuss some of the cultural aspects and roles that science and technology have had in the United States and Japan. In particular, I will focus on the symbolic functions of science and technology, which has served to construct certain national images that people of the respective nations have been urged to share. Finally, I hope to encourage you to think what possible issues might the ideological frameworks for understanding and appreciating science and technology generate, and what problems they might pose to the sustainment of environment and society.

Reading:

Hiraku Shimoda, “‘The Super-Express of our Dreams’ and Other Mythologies about Postwar Japan,” in *Trains, Culture, and Mobility: Riding the Rails* (Plymouth: Lexington Books, 2011), ed. By Benjamin Fraser, Steven D. Spalding. (Accessible on the Internet via the Google Books)

Key words:

Science and technology, symbols, representations, cultural icons, nationalism, national identity

講義4 文化としての科学・技術

科学・技術は一般的に、客観的な観察や計測、分析を基盤とするとされていることから、文化的・歴史的背景の異なる国々においても普遍的に通用するものと考えられています。現代の科学・技術のルーツは主に西洋にあるにも関わらず、非西洋圏の国々で科学研究や技術革新が花開いている現状からは、この理解は部分的には当たっているといえるでしょう。しかし、科学・技術が個別の社会の文化的影響や限界から自由なものであると考えるのは素朴に過ぎるかもしれません。むしろ、科学・技術の発展の追及は、当該社会のその時代における文化的文脈から発する、特定の欲求をしばしば反映しているのです。

この講義では、アメリカ合衆国と日本における科学と技術の文化的側面および役割の中から、特に科学と技術の象徴的機能について論じます。科学・技術は両国において、国民が共有すべき自国イメージを構築する役割を果たしてきました。科学・技術を理解・評価するための思想的枠組からどんな課題が生じうるか、またそうした枠組が環境や社会の持続についてどのような問題を生じさせるか、考える契機にしたいと思います。

August 22 (Thr)

10:00～11:30

ESD International Agenda 3

Alternative Views on Technology, Culture, and Sustainability

Lecture 5 : Sustainability and Indigenous Peoples

presented by Ass. Prof. Jeffry Gayman

Educational Anthropology

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Indigenous peoples represent groups of people and communities who have lived in a single place for hundreds and thousands of years. Through this experience they have developed sophisticated knowledge systems intricately adapted to the particular climactic, floral, faunal, and societal particulars of their locales, as well as to the needs demanded by living therein, in a way that has proved to be environmentally friendly, holistic and sustainable. In recent years, scientists have come to pay increasing attention to these knowledge systems, which they refer to as Traditional Ecological Knowledge (TEK).



Traditional ecological knowledge, in turn, has shaped traditional small-scale societies, coming to be reflected in and transmitted through all aspects of life in those communities: their values, social norms, worldview, language, and behavior patterns.

In this lecture we will be examining specific instances of traditional ecological knowledge from North America and Japan, to see how they are uniquely adapted to local environments, passed on to succeeding generations within each community, and can express continuity despite transformations in the society. We will reflect on how the values embodied therein have relevance for us as members of modern technological mainstream society by asking the question, “What potential benefit do the values and knowledge of indigenous peoples have for the modern world, and what are the issues involved for incorporating them into our societies?”

Reading:

Suzuki, David and Peter Knudtson 1992 *Wisdom of the Elders*. New York: Bantam Books.

United Nations Declaration on the Rights of Indigenous Peoples

http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf#search='United+Nations+Declaration+on+the+Rights+of+Indigenous+Peoples'

Key words:

indigenous peoples, traditional ecological knowledge, indigenous cultural transmission, environmental protection, cultural diversity, biological diversity, learning across cultures

講義5 先住民族とサステナビリティ

先住民族とは、ある一定の地域に何千も住み続けた人々や共同体である。このような経験を通じて、彼らはその場所の気候、動植物、社会的環境に密に対応した、高度な知識体系を築き上げてきた。また、彼らの生き方は包括的なもので、環境にやさしく、持続可能なものでもある。これを受けて、近年、これらの知識体系に注目してきた科学者はそれらを伝統的な生態学的知識 (Traditional Ecological Knowledge) と称している。

一方で、伝統的な生態学的知識は小規模・伝統的な社会の生活のあらゆる方面—価値観、社会的規範、世界観、言語、行為の形態—をかたどり、そこで反映され、その中伝承されるようになってきた。

この講義では北米および日本の伝統的な生態学的知識の具体的な事例を取り上げ、それらがローカルな環境に密接に対応されており、共同体の中で継承され、また、社会的環境の変容を通じても継承されることを検討する。近代の科学技術が非常に発展された我々現代の主流社会の人々にとって、これらの知識体系の中に具現化される価値観はどのような意義があるかをつききゅうするため、「現代人にとって先住民族の知識や価値観はどのような価値をもち、また、それらを現在の社会に生かすためにはどのような課題があるのか」という問いを立てます。

August 23 (Fri)

10:00~11:30

ESD International Agenda 4

Symbiosis with Nature

Lecture 6: Building a sustainable fishing community in the post-tsunami recovery of Kesennuma Fisher

presented by Ass. Prof. Gaku Ishimura

Resource Economics and Policy, Sustainability Science, Leadership
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Two years have passed since the Tohoku Earthquake that devastated the northeast region of Japan on 11th March, 2011. The violent tsunami that followed the earthquake resulted in the widespread destruction of the fishing industry in the Northern Japan, affecting 319 fishing ports and over 21,000 fishing vessels. Kesennuma in Miyagi prefecture, with the ninth largest annual fishery landings in Japan (2009), was not an exception. Although the most of fishing vessels at Kesennuma city were ruined, 16 out of the 18 off-shore longline fishery vessels survived because they were engaged in fishing activities away from the coast at the time of the tsunami. Activities of this sector are increasingly important to the region due to its landings, namely swordfish and blue shark. Its relevance to community resilience has intensified. One of the region's current priorities is to enhance production and stabilize the volume of landings to help regenerate the post-disaster economy. The biggest malaise facing the is the lack of off-shore longline fisheries vitality caused by the rigidity of the well-established Japanese fishery system and pressures on their shark fisheries by animal rights activists that stifles motivations to build a sustainable fishery system. In this lecture, first I will address "a sustainable fishery system" in the light of a fishery resource as a renewable natural resource and economic incentives as drivers of fishing activities. Second, current challenges in a rebuilding off-shore longline fishery will be introduced together with a sustainability of targeting fishery resources and viability of local economy. Then, on-going three rebuilding strategies by our research group, i) economic analysis on the fishery toward optimizing operations, ii) individual vision formulation to motivate rebuilding fisheries and iii) strategic marketing for the global shark marketing, will be explained.

In the workshop section, I will generate arguments on diverse perspectives of "sustainability" about the post-tsunami recovery, and facilitate for a role-playing for discussions.

Reading: Ishimura, G., and M. Bailey. 2010. "Defining sustainability of fishery resource,"

In *Sustainability Science*, Vol 1., United Nations University Press, Tokyo, JAPAN.

Keywords: Tsunami, recovery, sustainable fishery, global market, motivation, vision

講義6 文化としての科学・技術

大きな被害をもたらした東日本大震災から二年がすぎた。地震後の大津波は 319 もの漁港に被害を与え、21000 隻以上の漁船が失われ、北日本の水産業に大きな被害をもたらした。2009 年度に全国九位の年間水揚げ高を誇った宮城県気仙沼市も例外ではなく、大半の漁船が失われることとなった。けれども、津波時に遠洋で漁獲をおこなっていた近海延縄船 18 隻中 16 隻は生き残った。近海延縄船はメカジキとヨシキリ鮫を主に漁獲し、その水揚げは地震後、気仙沼地域にとって重要であるのみならず、地域経済の生存にとってますます不可欠なものとなっている。震災後、近海延縄船の水揚げの増加と安定は気仙沼地域経済再生にとって必須となっている。しかしながら、既存の漁業制度や鮫漁業に対する動物権利団体などからの無理解な反対活動などにより震災からの持続的漁業構築に向けた動きは遅々として進んではいない。今回のレクチャーでは、最初に再生産性天然資源である水産資源、そして経済活動としての漁業という視点から持続的水産システムをどのように考えるのかを話す。次に、現在我々が、直面している水産資源の持続性と地域経済の活性を考慮した近海延縄船団立て直しにおける問題について述べる。最後に、我々の研究グループが推し進める 3 つの復興戦略、i) 漁業活動の最適化に向けた経済分析、ii) 漁業復興の動機付けのための個人ビジョン形成、そして iii) 鮫漁業のためのグローバルマーケティング戦略について話をし、参加者の議論を喚起したいと考えています。

August 26 (Mon)



10:00~11:30 Preparation for presentation

13:00~16:00 Presentation and discussion

Presentation & Discussion

Each group will present the summary of ideas and opinions on an issue of group's choice.

Method: Using a presentation software (such as MS-Power Point) is recommended.

(1) Select a topic for the presentation:

Select a topic to present with the members of your group. The topic may take up multiple issues, and relations among them.

(2) Objectives, Backgrounds and Motivations for study:

In your presentation, include why you select the topic or issue, how it relates with ESD, and what kinds of significance it has. Background knowledge is very important for preparing the presentation and making you understood.

(3) Contents:

Express freely your idea, consideration, impression and concept. It is recommended that your comment is based on scientific data or solid facts (including references from handouts of classes, or international organizations such as UNESCO, WHO, OECD and so on.).

(4) Conclusion:

Summarize your opinions concisely and clearly in 2 or 3 sentences. If feasible, add comments for further research you would like.

Task

Deadline: September 13 (Fri)

All reports from the participants from one institution should be attached to one e-mail, and be sent to:

ichiro.matsumoto@edu.hokudai.ac.jp

Subject matter of the mail is your affiliation (University)

Report is individual-based. The following items (1) and (2) must be included.

(1) Report of your favorite subject after learning

Use A4 size paper (one sheet or more, but not more than 3 pages) including title, name and affiliation. A report should consist of following paragraphs:

- 1) Background (or basic knowledge)
- 2) Purpose (or Motivation to discuss)
- 3) Contents
- 4) Conclusion (How do you think of the issue)

(2) Report of study & research achievement for Short Stay Program by participating in ESD Campus Asia Project.

Please answer the questions below in your report.

Q1. How do you think your motivation for studying abroad, study/research and international understanding have been changed by participating in this program?

Q2. Do you want to participate in other kinds of study/research projects? If your answer is “yes”, when and what type of study/research projects do you want to participate? If your answer is “no”, what made you think so?

Your candid opinion is highly appreciated.

Use A4 size paper (one sheet or more, but no limited length if you have more things).