

Japan-Canada Academic Consortium Student Forum

**on
International Trade and Environmental Sustainability**

February 21-27, 2011

**University of Alberta
Edmonton & Calgary, Alberta, Canada**

Organized by the
**Prince Takamado Japan Centre for Teaching and Research,
University of Alberta**
in cooperation with
Meiji University

Final Report

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MESSAGE FROM THE ORGANIZER

On behalf of the organizing committee for the 2nd Annual Japan-Canada Academic Consortium Student Forum, I would like to extend my deepest condolences to the people of Japan. Over a month has passed since a magnitude 9.0 earthquake struck off the coast of north-eastern Japan, triggering a massive tsunami which has caused immeasurable damage and claimed tens of thousands of lives. It will take several months, if not years, for the region and country of Japan as a whole to recover from this tragedy. However, it is my strongest belief that Japan will successfully rebuild and regain its status as one of the world's leading nations. At the same time, I also believe that catastrophes such as these underscore the importance of international collaboration and cooperation among individuals spanning across nations, which is the central goal of the JACAC Student Forum.

The second annual Japan-Canada Academic Consortium Student Forum was held in February 2011, with the main theme of this year's forum being 'International Trade and Environmental Sustainability', and subthemes being 'Food Security', 'Biodiversity', and 'Climate Change.'

Building on the success of the first forum that Meiji University organized a year earlier, our goal was to explore a sustainable model for the forum, which we hope we will continue to be an annual event for the Japan-Canada Academic Consortium. 26 students, consisting of 18 from Japan and 8 from Canada, gathered in Edmonton, Alberta. I feel that it is important to note that some Canadian students, such as those from Prince Edward Island, had to travel nearly as far as the group of Japanese students to get to Alberta, thus serving to remind us of the sheer immensity of this country, and the importance of networks such as JACAC even within our own nation.

Being able to observe the students from different parts of the world, coming from different academic and social backgrounds, interacting in serious discussions, in more casual social settings, and giving superb group presentations at the closing ceremony demonstrated that incredible things can be accomplished when students are given the opportunity.

This forum truly showcased team efforts of the individual JACAC institutions from beginning to end. Preparations for the forum started as early as February 2009, even before the first forum took place in Tokyo. Specific details of the forum began to come together in May 2010, when the organizing committee was formed. We were very fortunate to have the enthusiastic and knowledgeable support of the organizing committee members, which included one faculty member and two graduate students, and one undergraduate student. Special thanks must also go to the supporters of the forum: the Canadian Government, the Japan Foundation, and the Prince Takamado Japan Canada Memorial Fund. Meiji University also provided very generous and thoughtful support throughout the planning process, as well as during the forum. Finally, we are also very grateful for the kind support from the Alberta Government, Japan Canada Oil Sands Limited, and the University of Alberta.

To all the student participants, our future leaders in the global society: Congratulations on your achievements, and best wishes for the future!

Dr. Kaori Kabata

*Director, Prince Takamado Japan Centre for Teaching and Research, University of Alberta
2nd Annual Japan-Canada Academic Consortium Student Forum Organizing Committee*

ABOUT THE FORUM

The 2nd Annual Japan-Canada Academic Consortium Student Forum was hosted this year by the Prince Takamado Japan Centre for Teaching and Research at the University of Alberta in Edmonton, Alberta, Canada. 8 students from 5 Canadian universities and 18 from 10 Japanese universities attended the week-long event from February 21-27, 2011. The theme of this year's forum was International Trade and Environmental Sustainability, with subthemes of Climate Change, Biodiversity, and Food Security.

The goal of the JACAC Student Forum is to provide students with the opportunity to interact with their peers from a different culture, in order to gain insight into their current areas of academic interest and to encourage a flow of ideas between Canada and Japan. Students attending this year's forum participated in lectures given by academic and industry professionals, as well as group discussions and consultations with graduate students.

Lectures and afternoon group sessions were held at the University of Alberta in Edmonton, Canada. Towards the end of the week, the group travelled to Calgary, Alberta, where they were treated to a guided tour of Banff National Park with Parks Canada, as well as enjoyed some time shopping and experiencing the Canadian Rockies. The forum was wrapped up at the University of Alberta's Calgary Centre, where students gave their final group presentations and a closing ceremony reception was held.

Students were divided into 7 groups of 3 to 4 members and assigned to a forum subtheme. Each group then chose from a set of questions posed by the Organizing Committee regarding their topics, and worked on a 10-12 minute presentation. The students' presentations provided an overview of the understanding acquired through attending the forum lectures, group discussions, and students' own research, and addressed the issues from several perspectives, including social, business, and environmental. Some groups were awarded special effort prizes courtesy of Japan Canada Oil Sands Ltd., and participants also voted for leadership prizes for their peers.

The opportunity for interaction between undergraduate students at the forum allowed participants to discuss issues relevant to their studies and research with their peers from a different country, gaining valuable insight from a multicultural viewpoint. Cultural exchange was also evident as students socialized both during organized and more casual events.

For the third forum, the venue moves back to Japan and is currently scheduled for February 2012. Ritsumeikan University in Kyoto will be the hosting institution.

2nd ANNUAL JAPAN-CANADA ACADEMIC CONSORTIUM STUDENT FORUM ORGANIZING COMMITTEE

Dr. Kaori Kabata

Director, Prince Takamado Japan Centre for Teaching and Research, University of Alberta

2nd Annual Japan-Canada Academic Consortium Student Forum Organizing Committee

Dr. Chokri Dridi

Assistant Professor, Dept. of Rural Economy, University of Alberta

JACAC Student Forum Academic Leader

Ms. Shari Clare

PhD Candidate, Dept. of Renewable Resources, University of Alberta

Student Group Facilitator

Mr. David Roberts

PhD Candidate, Dept. of Renewable Resources, University of Alberta

Student Group Facilitator

Ms. Jennifer Mc Getrick

JACAC Student Forum Alumnus

JACAC MEMBER UNIVERSITIES

Canadian Universities

University of Alberta

University of British Columbia

University of Manitoba

York University

Queen's University

Université de Montréal

Concordia University

Université Laval

University of Prince Edward Island

Japanese Universities

Meiji University

Josai International University

Sophia University

J.F. Oberlin University

Tsuda College

Kwansei Gakuin University

Hosei University

Ritsumeikan University

Kyoto Education University

Nagoya University

Hokkaido University

LIST OF PARTICIPANTS

Undergraduate Students – Canada

Maryam Azh, York University
Jean-François Caty, Université de Montréal
Krista-Lee Christensen, University of Prince Edward Island
Anita Fung, University of Alberta
Lucas Hennessey, University of Prince Edward Island
Robbie Saada, University of Prince Edward Island
Noah Saber-Freedman, Concorida University
Eric Sullivan, Université de Montréal

Undergraduate Students – Japan

Shiho Enomoto, Tsuda College
Ko Fujisaki, Ritsumeikan University
Toyoko Funahashi, Meiji University
Asami Hagino, Ritsumeikan University
Lisa Hayakawa, Hosei University
Shoko Kano, Nagoya University
Moe Kitagawa, Sophia University
Chihiro Komtasu, Meiji University
Sho Maeera, Nagoya University
Mariko Miyao, Osaka University
Kanakano Murase, Kwansai Gakuin University
Saika Nagai, Sophia University
Heihachiro Shigematsu, Hokkaido University
Hiroyuki Takikawa, Josai International University
Junko Yamada, Tsuda College
Mariko Yamashita, Hosei University
Makoto Yamauchi, Hokkaido University
Hiroki Yonetani, Kwansai Gakuin University

FORUM PROGRAM

Date	Time	Scheduled Event
February 20 (Su)	-	Students Arrive in Edmonton
February 21 (M)	9:30-10:45	Orientation Welcome remarks Student group assignments and introductions
	10:45-11:30	Presentation by Ms. Tara Scheurwater (DFAIT) <i>Current Situation of Japan Canada Relations</i>
	11:30-13:00	Lunch
	13:00 -	Cultural Activity Visit to City Hall West Edmonton Mall
February 22 (T)	9:30-9:45	Morning Orientation Sub-Theme: Food Security
	9:45-10:45	Presentation by Dr. Ellen Goddard (University of Alberta) <i>Food Security and Food Safety: How Different are Canadian and Japanese Consumers?</i>
	11:00-12:00	Presentation by Dr. Shirley McClellan (University of Alberta) <i>Food Security and the Environment</i>
	12:00-13:00	Lunch
	13:15-16:00	Student Group Sessions
	16:30-18:00	Cultural Activity Walk to Hawrelak Park
	18:00 -	Casual Gathering (organized by JAGSA)
February 23 (W)	9:30-9:45	Morning Orientation Sub-Theme: Biodiversity
	9:45-10:45	Presentation by Dr. Dan Farr (Biota Research) <i>Biodiversity and Ecosystem Services</i>
	11:00-11:45	Presentation by Dr. John Spence (University of Alberta) <i>Biodiversity and Forest Management: On Having Our Forests and the Rest of It Too!</i>
	12:00-13:00	Lunch
	13:15-16:00	Student Group Sessions

Date	Time	Scheduled Event
February 24 (R)	9:30-9:45	Morning Orientation Sub-Theme: Climate Change
	9:45-10:45	Presentation by Mr. Geert De Cock (University of Alberta) <i>What is at stake in international discussions on climate change?</i>
	11:00-12:00	Presentation by Mr. Toshiyuki Hirata (JAPEX/JACOS) <i>Canadian Oil Sand Development and Efforts in GHG Reduction</i>
	12:00-13:00	Lunch
	13:15-15:00	Student Group Sessions
	15:30 -	Depart for Calgary
February 25 (F)	9:00-11:00	Group travels to Banff
	11:00-13:00	Guided Tour of Banff with Parks Canada
	13:00-18:00	Free Time in Banff Town
	18:00-20:00	Dinner at Banff Centre
	20:00 -	Group departs from Banff
February 26 (Sa)	9:00-16:00	Student Group Sessions Preparation for group presentations
February 27 (Su)	9:00-12:30	Student Group Sessions Preparation for group presentations
	13:00-16:00	Student Group Presentations
	16:00-17:30	Closing Ceremony and Reception

GUEST SPEAKER ABSTRACTS

Dr. Ellen Goddard

Professor, Dept. of Rural Economy, University of Alberta

Food Security and Food Safety: How Different are Canadian and Japanese Consumers?

The words 'food security' are used in many different ways – to mean food safety, to mean accessibility of food to vulnerable populations, to mean sustainable domestic sources of food within national boundaries. Although food security is dealt with by every country, the relative weights on the different definitions differ across countries. Research has shown, for example, that Japan and Canada have very different views about the ways to handle specific food safety outbreaks, such as BSE (mad cow disease). The results from recent surveys of the public in Canada and Japan will be presented and differences in attitudes and behaviour, nationally, highlighted. One of the key factors that may determine different national government policies is the level of trust or confidence the public has in the policy makers who deal with food security. From the research conducted, the views of Canadians and people from Japan are very different, with Japanese consumers showing lower levels of confidence in the food system. Results show differences in the personal sense of responsibility consumers feel they have in the two countries and also in who they expect should be able to deal with food security issues. How different levels of trust and confidence have translated into different policies will be discussed. National differences in dealing with all three definitions of food security will be presented, although many of the examples will directly relate to food safety concerns within each country.

Dr. Shirley McClellan

Distinguished Scholar in Residence, University of Alberta

Food Security and the Environment

I will attempt from a laymen and producer point of view to examine the issue of Food Security and the Environment by reviewing briefly the seriousness of food needs worldwide, the challenges and risks in addressing the issue through production risks, environmental risks, challenges to producers and finally Alberta's role and opportunities in addressing the subject.

Dr. Dan Farr

Biota Research

Biodiversity and Ecosystem Services

Biodiversity is the variety of plants, animals, and other living organisms on Earth. Every species depends on the environment for energy, nutrients, and other resources. In turn, many species affect the cycling of energy, nutrients, and other materials, which means that the environment also depends on species. To make things even more complicated, species interact with each other through predation, competition, and other interspecific processes. Although scientists are only just starting to understand biodiversity, the Millennium Ecosystem Assessment (www.maweb.org) stated that biodiversity is the foundation for ecosystem services, which are the benefits people receive from nature. Therefore, global declines in biodiversity over the past century are worrisome, and new strategies are required to conserve biodiversity and ecosystem services.

Dr. John Spence

Professor and Chair, Dept. of Renewable Resources, University of Alberta

Conservation and renewal of biodiversity has become a central pillar in the Canadian concept of sustainable forest management. Use of biodiversity in this context means more than protection of threatened and endangered species, which are charismatic enough to attract public attention. Instead, the biota is seen as a useful multivariate indicator of forest condition. Information about biodiversity in this larger sense provides valuable data to guide assessments of whether forest management is ecologically sensitive and able to conserve and regenerate forest conditions that humans prefer and depend on for delivery of ecosystem services. In Canada we have developed management approaches designed to ensure that forestry activities are compatible with long-term goals of maintaining forest biodiversity. The approaches must operate over a range of scales and these will be outlined in the presentation. This talk will also provide address a long-term experiment designed to test some of the assumptions on which these particular management approaches rest. Such science provides the interaction between theory and application essential for adaptive management and for 'learning while doing'.

Mr. Geert De Cock

PhD Candidate, Dept. of Political Studies, University of Alberta

What is at stake in international discussions on climate change?

Geert De Cock's talk will present the current state of play with regard to tackling the challenge of climate change . His presentation will include an update on some of the scientific findings on climate change and their implications for the ongoing international negotiations on climate change, as they occurred in Copenhagen and Cancun. Geert's expertise is in the area of European Union climate and energy policies. While his talk will focus on this topic, the position of other major actors on climate change - China and the US - will be addressed. His presentation will conclude with an overview of efforts to move towards a low-carbon economy and the place of Canada and Alberta in particular in that context.

Mr. Toshiyuki Hirata

President, Japan Canada Oil Sands Ltd.

Canadian Oil Sand Development and Efforts in GHG Reduction

The world economy is continuously growing, led by rapidly developing areas such as Asia, South America and Africa and the world energy demand is increasing along with it. While this increasing demand presents tremendous opportunities for the oil industry, providing energy security and ensuring environmental protection are responsibilities of the energy industry that are critical to its long-term success. Canada has a huge oil sands resource and the Canadian oil sands industry is working on balanced development of the oil sands that considers impacts on both the economy and the environment. This presentation covers the current status of oil sands development in Canada and how we are working on reducing GHG emissions.

STUDENT GROUP PRESENTATIONS

Climate change: Each country should care for an issue that concerns all

Ms. Moe Kitagawa (Sophia University) LEADERSHIP PRIZE

Ms. Chihiro Komatsu (Meiji University)

Mr. Heihachiro Shigematsu (Hokkaido University) LEADERSHIP PRIZE

Mr. Eric Sullivan (Université de Montréal) LEADERSHIP PRIZE

QUESTION:

Multilateral or unilateral? Can international treaties and summits effectively address climate change, or should countries be acting alone to address threats?

ABSTRACT:

To address to this question, we will start by reviewing the recent multilateral negotiations and summits, and present the lessons that can be derived from them. Based on this assessment, we will explain our vision of international agreements acting as a means of collective action towards specific goals and of harmonization of progress driven by unilateral initiative.

Climate change: Each country should care for an issue that concerns all.

Moe Kitagawa Sophia University
Chihiro Komatsu Meiji University
Heihachiro Shigematsu Hokkaido University
Eric Sullivan Université de Montréal

JAPAN - CANADA ACADEMIC CONSORTIUM 

Multilateral or unilateral? Can international treaties and summits effectively address climate change, or should countries be acting alone to address threats?



JAPAN - CANADA ACADEMIC CONSORTIUM 

What do we mean by bilateral and multilateral?

- Unilateral action: an action carried by a single nation, one-sided.
- Multilateral: a term used in agreements or treaties denoting the participation of three or more participants.

Source: www.u-s-history.com

JAPAN - CANADA ACADEMIC CONSORTIUM 

For all the talk, what have they brought us?

“That the world’s largest carbon emitters, China and America, are not bound by the protocol makes it absurd. That they will not be so bound—neither is willing to give up so much sovereignty to an international legal process—makes seeking its extension moot.”

Source: *The Economist. A Sort of Progress*



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From Copenhagen to Cancun

“After the procedural nightmare of 2009’s Copenhagen climate-change summit, its successor in Cancun, Mexico, played out surprisingly well, achieving a fair bit of what its overhyped and acrimonious predecessor had fluffed.”

Source: The Economist, *A Sort of Progress*



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Adding some time on the clock

“Negotiations under the UN’s climate-change convention have had some limited success in getting countries to say they will cut emissions of carbon dioxide and other long-lived greenhouse gases. (...) Action on short-lived things like black carbon and ozone could help keep the climate on the right side of that line for a few decades longer.”

Source: The Economist, *Climate Change in Black and White*



JAPAN - CANADA ACADEMIC CONSORTIUM

International treaties help create the wave, it is up to each nation to surf it

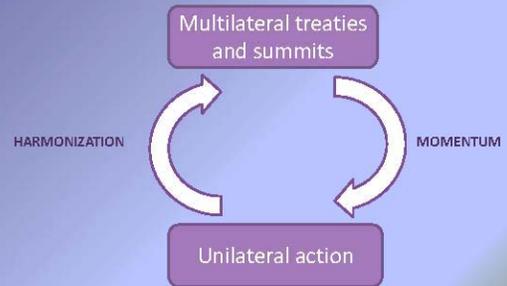
- ▣ Unilateral state action in the environmental field is a fact of international life.
- ▣ Certain types of environmental problems inherently require unilateral state action for their effective solution

Source: BILDER, Richard, *The Role of Unilateral Action in Preventing International Environmental Injury*



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The virtuous circle



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Take action in the world



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どうもありがとう



Thank you

JAPAN - CANADA ACADEMIC CONSORTIUM

Japan-Canada Collaboration on Reducing GHG Emissions: Government, Industry and Academic Initiatives

Ms. Maryam Azh (York University)
 Mr. Robbie Saada (University of Prince Edward Island)
 Ms. Junko Yamada (Tsuda College)
 Mr. Makoto Yamauchi (Hokkaido University)

QUESTION:

How can Canada and Japan collaborate to progress beyond fossil fuel dependence?

ABSTRACT:

Given that modern economies depend on fossil fuels as the primary source of energy, there must be measures taken to reduce GHG emissions and our dependency on fossil fuels. We believe this is most effectively accomplished by collaboration among governmental policies, industry-relations, and academic initiatives between Japan-Canada.

Group 7

How can Canada and Japan Collaborate to Reduce Oil Sands Air Emissions?

*Robbie SAADA (UPEI),
 Junko YAMADA (Tsuda College),
 Makoto YAMAUCHI (Hokkaido University),
 Maryam AZH (York University)*

ABSTRACT

- Modern economies depend on fossil fuels as the primary source of energy
- Measures must be taken to reduce GHG emissions and our dependency on fossil fuels
- Collaboration among governmental policies, industry-relations, and academic initiatives between Japan-Canada can help to effectively accomplish air emission efforts.

Canadian Oil Sands Emission

Table 13: Oil Sands Industry Air Emissions

Emissions	North East Alberta	Edmonton and Fort Saskatchewan
Sulphur Dioxide (SO ₂)	<ul style="list-style-type: none"> • Upgrader and Sulphur plant stacks • Flares 	<ul style="list-style-type: none"> • Upgrader and Sulphur plant stacks • Flares
Nitrogen Oxides (NO _x)	<ul style="list-style-type: none"> • Mining Diesels • Furnace Stacks • Gas turbine stacks 	<ul style="list-style-type: none"> • Mining Diesels • Furnace Stacks
Volatile Organic Chemicals (VOCs)	<ul style="list-style-type: none"> • Ponds and Flares • Fugitive emissions 	<ul style="list-style-type: none"> • Ponds and Flares • Fugitive emissions
Water Vapour	<ul style="list-style-type: none"> • Stacks • Ponds • Cooling Towers 	<ul style="list-style-type: none"> • Stacks • Cooling Towers
Particulates	<ul style="list-style-type: none"> • Stacks • Flares • Vents Reactions from other Gases 	<ul style="list-style-type: none"> • Stacks • Flares • Vents Reactions from other Gases
Carbon Dioxide (CO ₂ e) (including N ₂ O and CH ₄)	<ul style="list-style-type: none"> • All fuel sources • Mining settling ponds 	<ul style="list-style-type: none"> • All fuel sources

 *Government*

- EcoENERGY: Solar Thermal
 - National Solar Test Facility
- Alberta: Provincial Action in the Oil Sands
 - Price on carbon,
 - Regulated offset market,
 - Clean energy technology fund



 *Government*

- Act on Promotion of Global Warming Countermeasures
- Air Pollution Control Law

 Ministry of the Environment
Government of Japan

 *Industry*

- Imperial Oil Ltd.
- Reduce emissions by increasing energy efficiency, 25% (Liquid Addition to Steam)

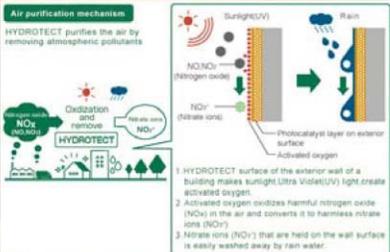


 *Industry*

TOTO
HYDROTECT
technology

Air purification mechanism

HYDROTECT purifies the air by removing atmospheric pollutants



1. HYDROTECT surface of the exterior wall of a building makes sunlight Ultra Violet(UV) light create activated oxygen.
2. Activated oxygen oxidizes harmful nitrogen oxide (NOx) in the air and converts it to harmless nitrate ions (NO₃⁻).
3. Nitrate ions (NO₃⁻) that are held on the wall surface is easily washed away by rain water.

 *Academia*

- Using microwave energy to activate oil sands coke for use as adsorbent for water and air treatment applications
- characterizing and developing emission factors for air pollutants emitted from oil sands tailings ponds



 *Academia*

- Green Roof Project
Okayama University
Shimane University
Hosei University
Nanzan University



Conclusion

- ✓ Create forests to absorb GHG
- ✓ HYDROTECT technology enhanced buildings to purify air from NOx pollution
- ✓ Solar thermal technologies to eliminate natural gas usage for steam productions in in-situ oil sands operations
- ✓ CO2 capture and storage for enhanced oil recovery

Our Suggestion:
Introduce new technologies to eliminate water steam injection for oil sands extraction: **Wind Power to create friction to reduce oil sands viscosity**

Making Climate Change History SPECIAL EFFORT PRIZE

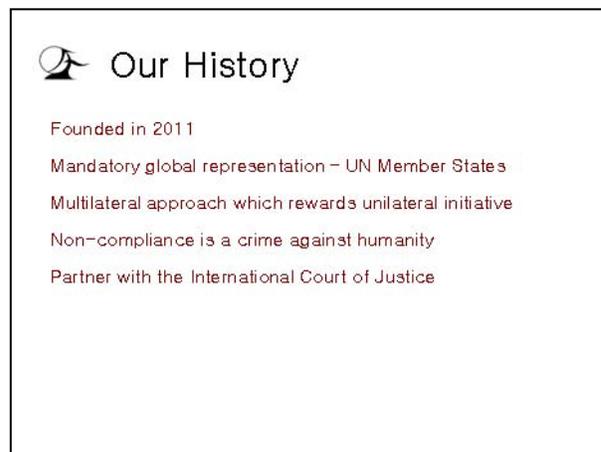
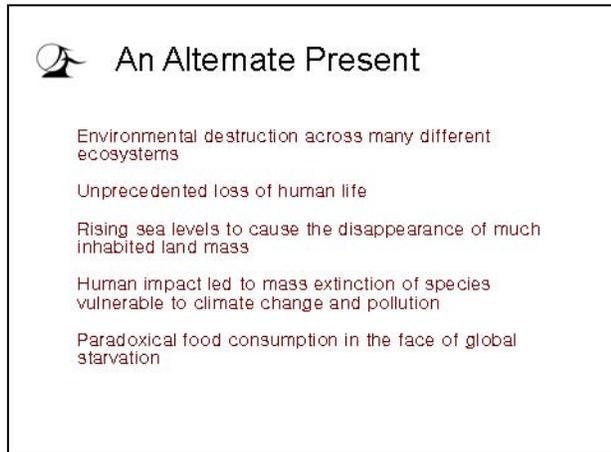
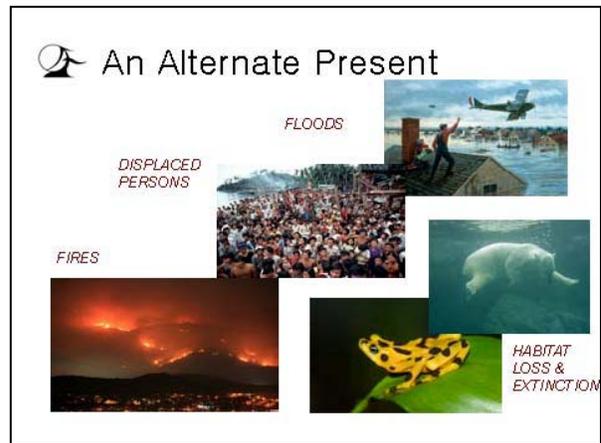
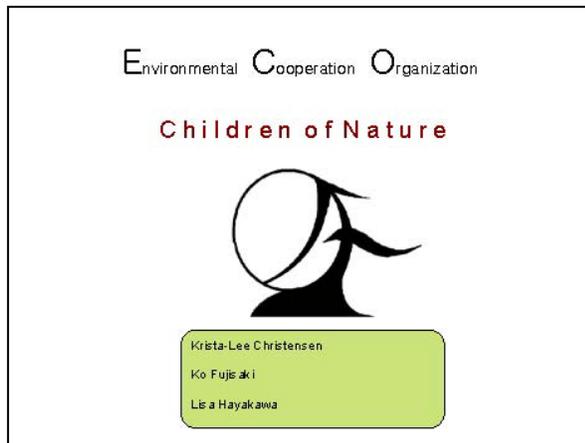
Ms. Krista-Lee Christensen (University of Prince Edward Island)
Mr. Ko Fujisaki (Ritsumeikan University)
Ms. Lisa Hayakawa (Hosei University)

QUESTION:

Multilateral or unilateral? Can international treaties and summits effectively address climate change, or should countries be acting alone address threats?

ABSTRACT:

The year is 2090; the world is experiencing economic and environmental success. Eco: Children of Nature is composed of government representatives, scientists, economists, and technology experts from around the world. Our mission is to encourage global collaboration, cooperation, and action for the health and reparation of the earth. We are making Climate Change history!



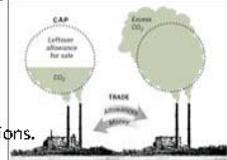
Main : How ECO works and functions as an international organization

- ECO is an organization as a result of the dissolution of several sections such as UNFCCC and IPCC.
- ECO requires mandatory compliance with legally binding member states in cooperation with ICJ (International Court of Justice) and WTO (World Trade Organization).



Phase 1 : CO2 reduction through Carbon Trading, CDM, & JI

What is Cap and Trade System?
 - Cap and Trade is an environmental policy tool that demands, and makes possible, a mandatory cap on GHG emissions.



ECO provides many other flexible approaches in how they comply

- Preserving precious forests and mangroves
- Restoring forests from deserts
- Protecting seashores and rivers from pollutions
- Green education in developing countries
- Investing new technology like 3R technology etc....

Phase 2 : switch from GDP growth economy to Fossil Fuel-Free economy

- ECO gives financial support for companies that innovatively produce goods based on green technology.
- ECO is provided with a monetary "donation" from each member state
- A steady switch to a green economy with clean energy and ECO-funded technological innovation, we have created new jobs and a new society.



Phase 3 : maintain regulations, monitor compliance, and investments in green economy

- The most important thing is to maintain its flexibility and rapidity in case of contingency for environmental disaster.
- ECO monitors the potential impacts of such human induced climate change and environmental problems.
- ECO spreads eco-friendly ideas in multilateral framework that can affect unilateral actions (countries and individuals).



What 2090 looks like:

- Transportation
- Communities within Urban Environments
- Technological advancements, made possible by ECO funding, have made fossil fuels an irrelevant energy source
- Energy storage and distribution
- Responsible and engaged tourism
- A shift in diet and land use means enough food for everyone



ECO Sponsored Projects:



Internal Problems, External Solutions

Mr. Sho Maeara (Nagoya University)
 Ms. Kanako Murase (Kwansei Gakuin University)
 Ms. Saika Nagai (Sophia University)
 Mr. Noah Saber-Freedman (Concordia University) LEADERSHIP PRIZE

QUESTION:

What are some government programs that can solve food security problems common to Canada and Japan?

ABSTRACT:

In the spirit of cultural exchange and mutual solution of shared problems, GROUP 2 proposes 3 programs to be implemented at the policy level in order to meet 21st century challenges in food security while improving international relations.

**INTERNAL PROBLEMS,
EXTERNAL SOLUTIONS**

Working together to solve Canadian and Japanese food security problems at the policy level



Noah SABER-FREEDMAN
Sho MAEARA
Saika NAGAI
Kanako MURASE

Do you know... ?
1



11.1 million tonnes which is the amount of waste food per year





1/3 of 14-18 years old: high risk group due to diet



Food Security W.H.O. Definition
2

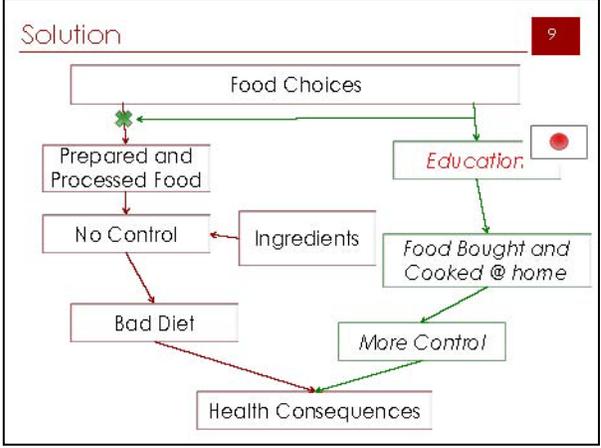
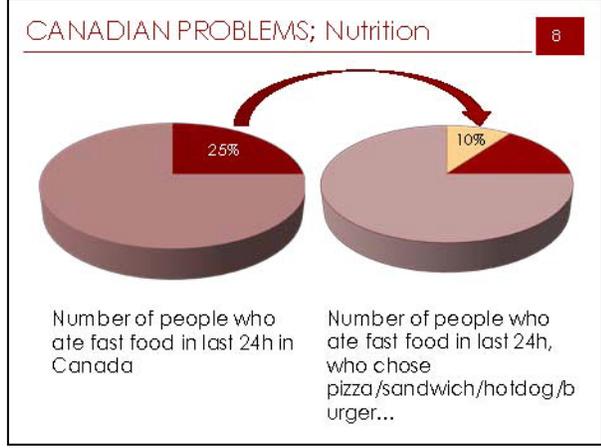
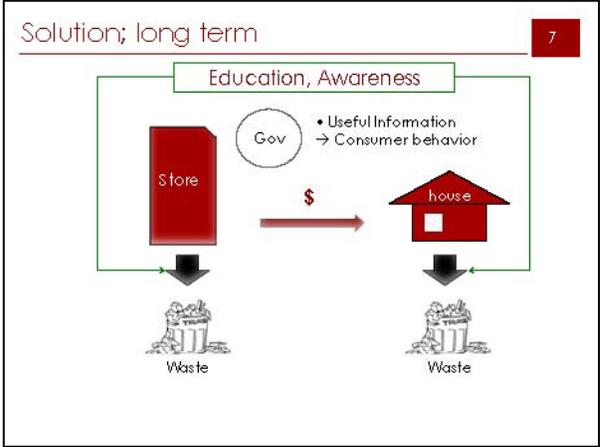
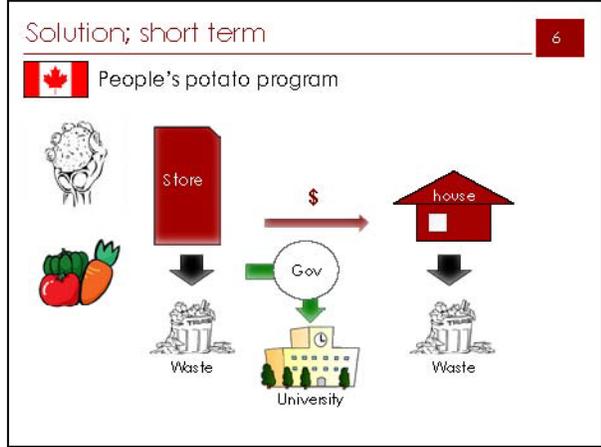
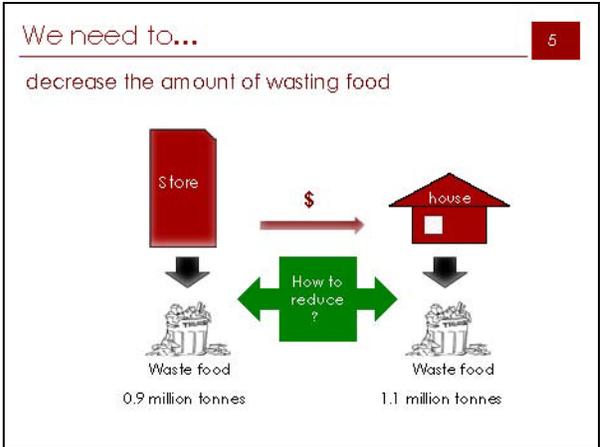
Based on Three Pillars:

FOOD AVAILABILITY	FOOD ACCESS	FOOD USE
sufficient quantities of food available on a consistent basis.	having sufficient resources to obtain appropriate foods for a nutritious diet.	appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation.
↓ JAPAN	↓ JAPAN, CANADA	↓ JAPAN, CANADA

OBJECTIVE
3

Information Sharing to Solve Domestic Food Security problems





Dietary Education 10

Canadian Food Guide
Fats, Oils, or Seeds
Like Butter

Japanese Dietary Education

□ Health Education
□ How to cook
□ Added Benefits?

Not enough

食育の時間
SINCE 2005

Conclusion 11

- Japan and Canada have different Food Security problems.
 - Japan; Food Waste
 - Canada; Nutrition
- Each country can look to the other for help
- Proves great benefit from strong Japan-Canada relationship

Are you a loca-vore? Choosing local food in a dynamic food market

Ms. Toyoko Funahashi (Meiji University)
Mr. Lucas Hennessey (University of Prince Edward Island)
Ms. Mariko Miyao (Osaka University)

QUESTION:

Is local better? What is the role of local producers in a global industrialized food complex?

ABSTRACT:

Comparing Canadian and Japanese views on local products and buying locally. The advantages and disadvantages associated with it.

Are you a locavore?
Choosing local food
in a dynamic food market.

Feb 27, 2011
Luke Hennessey, Mariko Miyao, Toyoko
Funahashi

1

Outline

Local food security

1. Introduction
2. Is local better?
 - What is the role of local products in a global industrialized food complex?
3. Food sufficiency
4. Comparing the situation Canada & Japan
5. Conclusion

2

Food security and Food safety

- Food accessibility for vulnerable populations
- Ensuring sustainable food production within a country to feed the population
- Food use: appropriate use based on knowledge of basic nutrition and care



3

What is local ?

- Different for every person.
- The definition is flexible, dynamic and also changes depending on the product in consideration.
- What is locavore? Consumers those who are interested in eating food that is locally produced.

4

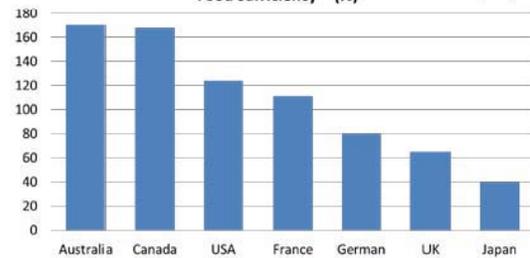
✦ Local is better ?

- **Food safety**
- **Food accessibility**
- Cheap, safe, easy to get, we can understand who produces the goods, more reliable
- Highest quality food supplies, food cultures
- Fewer transportation emissions
=better for the climate

5

Food sufficiency (%)

[2007]

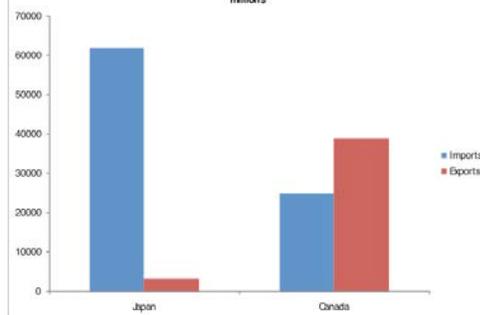


Source: Ministry of Agriculture, Forestry and Fisheries Japan

6

Food Exports and Imports, 2008

million \$



Reference: Dr. Ellen Goddard's presentation 2011.

7

Japan

- Depends significantly on agri-food imports, --it has lowest rate of food sufficiency of developed nations
- The number of the farmers is declining to 5.5% of whole Japanese population(2010) --more than 60% of them are over the age of 60
- The agricultural land is also declining to 4.63million hectares.

8

- Cooperation with Farmers and restaurants
 - supply organic foods
 - Safe and cheap

ex: Saizeriya, Mosburger



9



10

Canada

- Import half of what we eat, export half of the food produced.
- Due to geographic location, Canada imports two thirds of fruits and vegetables consumed.
- Very large exporter of food products.
- The agricultural land is not declining, and stands at about 67.5 million hectares.

11

- According to Canadian Food Inspection Agency, local is within 50 kilometers.
- University initiatives to make campus more local.
 - SFU local food project
 - Alberta U “Green and Gold garden”



12

Comparison

	CANADA	JAPAN
Population	34 millions	127 millions
Farmland	67.5 million ha	4.6 million ha
Ha/person	2 ha /person	0.03 ha/person

13



14

Drawbacks

- Local eating is not perfect.
- Less variety, many products are not available.
- Can be more expensive ; depends on the products
- Decreases the amount of trade and trade is important.

15

Conclusion

- Consuming food locally has many clear advantages and many people are moving towards this lifestyle.
- However, has a several dilemmas.
- In general, local eating allows for further investigation.

16

- **Locally raised beef**
 - Very few transportation emissions
 - BUT the grains used to feed the cattle, which use a lot of energy to grow and ship
- **Imported organic beef**
 - More emission involved with transportation
 - Fed on grass, no cost or emissions involved.
 - Shipping only includes 5% of greenhouse gases.

Local does not always mean more efficient! Be informed and know where your food comes from.

17

Analysis of natural resource use from a biodiversity perspective

Ms. Anita Fung (Alberta)

Ms. Asami Hagino (Ritsumeikan)

Ms. Shoko Kano (Nagoya)

Mr. Hiroki Yonetani (Kwansei Gakuin)

QUESTION:

Over-consumption? How do our habits as consumers influence biodiversity of our forests and oceans, and what policy options exist to address this?

ABSTRACT:

Introduction – Definition of overconsumption?

How do our habits affect biodiversity?

- Japanese example – depletion of tuna supply? Over-consumption of paper?
 - Canadian example – oil sands? – pose it as a question
 - Issue – if you consume less of oil products then the economy may crash
- Policy options?
- Canada Species at Risk Act?
 - Climate Change Emissions and Management Act
 - Japan?

Over-consumption?
How do our habits as consumers influence
biodiversity of our forests and oceans,
and what policy options exist to address this?

Anita Fung	University of Alberta
Asami Hagino	Ritsumeikan University
Shoko Kano	Nagoya University
Hiroki Yonetani	Kwansei Gakuin University

**Analysis of natural
resource use from a
biodiversity perspective**

~ Case studies~
Paper use in Japan
Oil sand production in Canada~

Contents

- Introduction to overconsumption
- Case study: Japan's paper use
- Case study: Canada's oil sands
- Questions

Introduction

1. What is over-consumption?

2. What are basic solutions?

1. What is over-consumption?

"Over" suggests that something is wrong



What is wrong from an environmental standpoint?

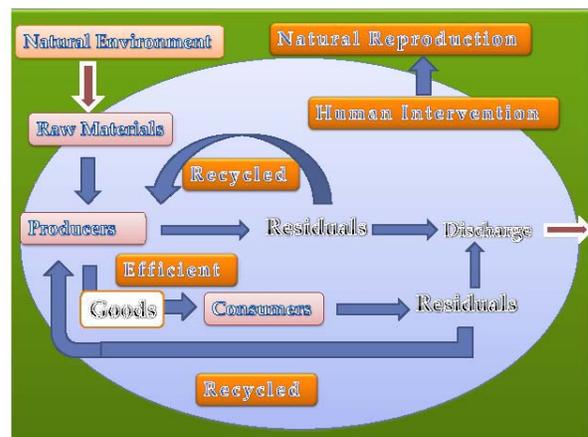
Over-consumption ⇔ Sustainable consumption

The definition over-consumption w.r.t biodiversity



The amount of consumption of animals and plants that is more than being recovered either naturally or artificially

2. What are basic solutions?



5 solutions to enrich biodiversity

- Natural reproduction

Increase of

- Human intervention in reproduction
- Recycle rate
- Efficient use
- Adopt a new technology



Reduction of

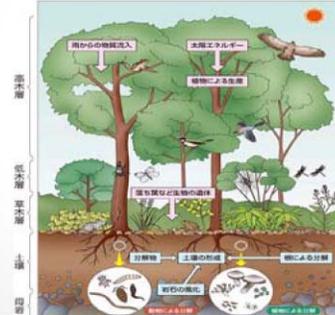
- The amount of consumption



Biodiversity and Economic Development

Forest plays a role in biodiversity...

● 土壌 / 樹木の遺骸が再び巡り循環する、複雑な森林生態系





According to FAO (Food and Agriculture Organization of the United Nations), **15million hector, which is equal to 1/3 of Japan had been lost!!!!!!!!! (2000-2005)**



international level

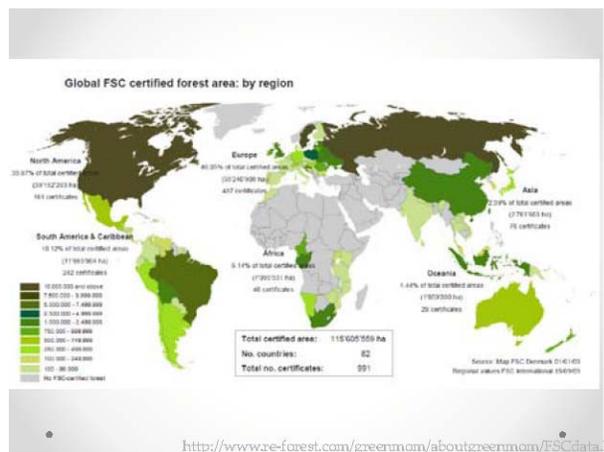
FSC (Forest Stewardship Council)

an independent, non-governmental and non-profit organization established to promote the responsible management of the world's forests

national level (Japan)

SGEC (Sustainable Green Ecosystem Council)

established to be an appropriate certification scheme in the context of Japanese forestry.



<http://www.re-forest.com/greenom/aboutgreenom/FSCdata/>



林野庁 2005年12月「森林における生物多様性保全の推進方策検討会」
Forestry Agency
"Investigative Commission for Promoting Policy on Conservation of Biodiversity in Forest"

International Year of Forests 2011
森林における生物多様性の保全及び持続可能な利用の推進方策」の概要

我が国は国土の3分の2を森林が占めるなど、森林そのものが国土の生態系ネットワークの核としての役割を担い、我が国豊かな生物多様性を維持。

森林管理としては、開発を誘って過度な伐採により常に変化を伴う。一定の適正伐採が行われて、その土地固有の自然条件、立地条件下に適した様々な樹種のタイプが存在し、地域の生物種の維持に必要な様々な遷移段階の森林がバランスよく配置されることが重要。

生物の多様性が科学的に解明されていない要素が多くあることを十分認識した上で、適切な予測とあわせて十分な準備も怠り行わない。さらには、管理システムに組み込み、間にヒタリングを行いながらその結果に合わせて対応する必要がある積極的アプローチが重要。

制度的な整備とともに、森林生態系の生産力の範囲内で持続可能な採集活動を多量に実施することによって、様々な林業からなる多様な森林生態系を保全することが生物多様性の確保に資する。

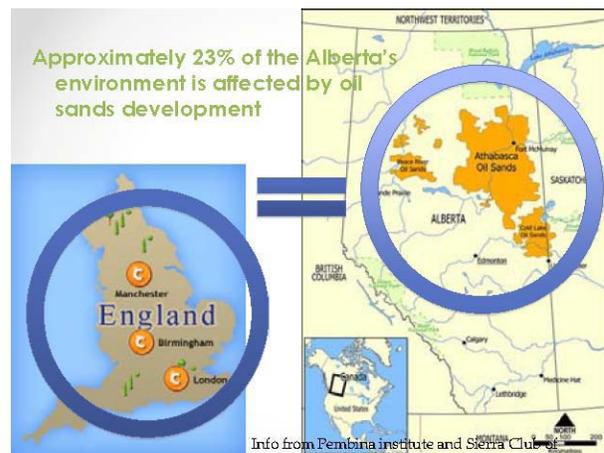
資料：林野庁事務局

INTERNATIONAL YEAR OF FORESTS - 2011

How are the oil sands a result of our habits and overconsumption tendencies?

"The oil sands is a result of overconsumption because we used up all the conventional oil resources and as a result have to develop these oil sands to get more oil!"

- Toshiyuki Hirata



50/50 between in situ and surface mining, surface mining will continue to be exploited



The ever-increasing web of roads, well pads, seismic lines and pipelines create isolated patches of wildlife habitats that are forcing native animals such as the Woodland Caribou out of their homes



After 40 years and 420 km² of mining, no land has been certified as reclaimed by the Government of Alberta.



Syncrude Oil Case



What policy options exist to address this issue?

- Canada Species at Risk Act (SARA)
- Environmental Protection and Enhancement Act (EPEA)
- Climate Change Emissions and Management Act (CCEMA)

Solving Biodiversity Problems with Collaboration SPECIAL EFFORT PRIZE

Mr. Jean-François Caty (Université de Montréal)
Ms. Shiho Enomoto (Tsuda College)
Mr. Hiroyuki Takikawa (Josai International University)
Ms. Mariko Yamashita (Hosei University)

QUESTION:

How can our respective countries collaborate to clean water pollution created by oil sands to bring back healthy biodiversity?

ABSTRACT:

Our presentation will be about the introduction of a new technology that can improve the quality of water resulting by the oil sands in Alberta. It will also show the importance of collaboration between Japan and Canada and insist the positive effect of working together.

**Solving Biodiversity
Problem with
Collaboration**

Jean-François Caty (University of Montreal)
Shiho Enomoto (Tsuda College)
Hiroyuki Takikawa (Josai International University)
Mariko Yamashita (Hosei University)

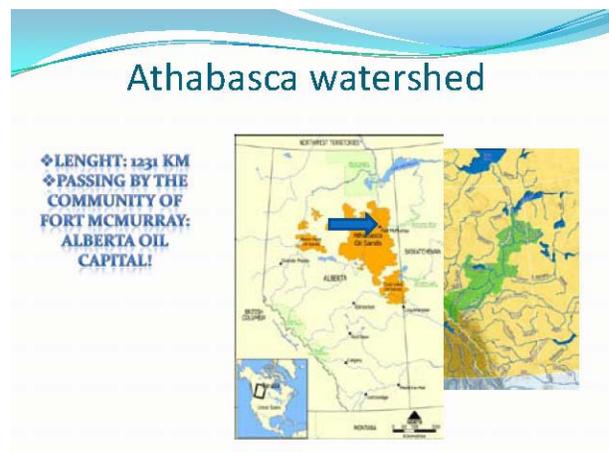
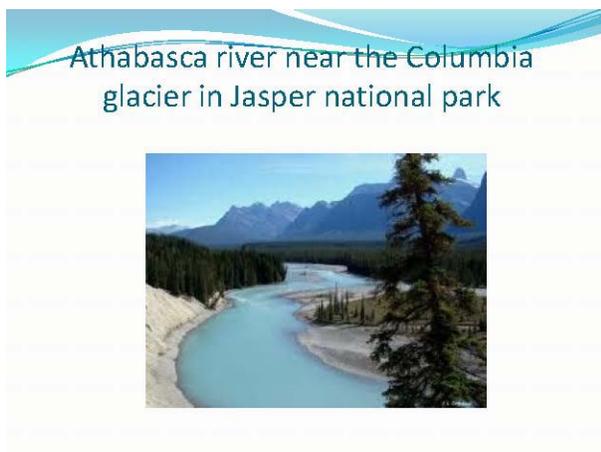
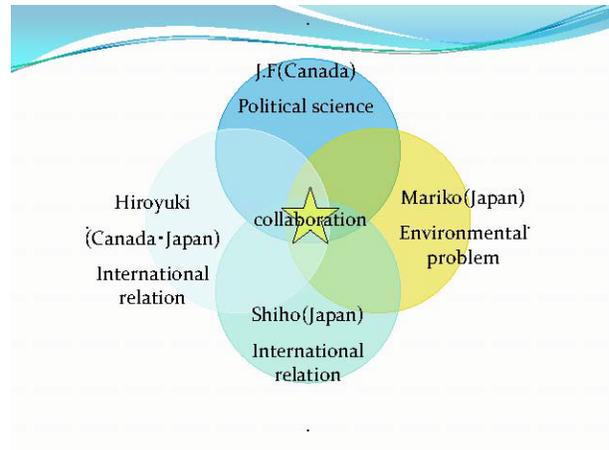
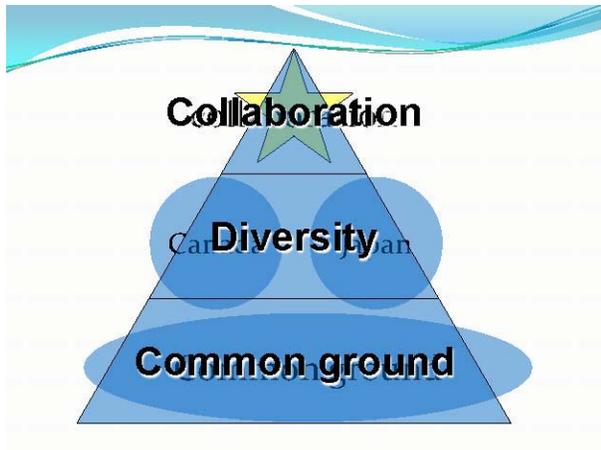
- **How can our respective countries collaborate to clean water pollution created by oil sands to bring back healthy biodiversity?**

PLAN

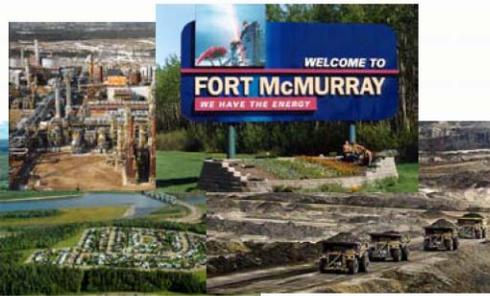
1	CURRENT SITUATION (WATER AROUND THE OIL SANDS)
2	OUR IDEAS (JAPANESE WATER TECHNOLOGY)
3	EFFECT (BIODIVERSITY)

Introduction (Motivation)

Diversity and collaboration



Fort McMurray



Lake Athabasca



Fort Chipewyan

- Population of about a thousand
- Native: Chipewyan and Cree



Athabasca river near the oil sands



Types of Extraction Process

- Cold Flow
- Cyclic steam stimulation
- Steam assisted gravity drainage
- Vapor extraction process
- Toe to heel air injection
- Combustion overhead gravity drainage

- However, we will concentrate on surface mining

Why concentrate on the surface mining?

- It creates the giant tailing ponds which are really problematic for the biodiversity

- The level of water recycled in this type of exploitation is much lower than in other types.

First Problem:Water level

- Oil Sands mining operation are licensed to divert 604 million cubic meters of water
- Enough to supply a city of 3 millions citizens
- Majority of the water doesn't go back to the river
- Fish cannot go back to the affluent river where they spawn because of the low level of water
- Volume of flow of the Athabasca river is 30% lower than the historical level

- Sources: Pembina institute and David Schindler

Second Problem:Water pollution

- Study by Alberta biologist David Schindler showed that:
 - Overall levels of seven elements – mercury, lead, cadmium, copper, nickel, silver and zinc – exceed those recommended by Alberta or Canada for the protection of aquatic life, it said, concluding the “oil sands industry substantially increases loadings” of toxins into the river”
 - The level were higher near the Athabasca Lake than upstream

Effects

- “Of 27 whitefish, burbot and northern pike recently collected by Robert Grandjambe, a resident of Fort Chip, seven had deformities, lesions, curved spines and bulging eyes.

- No reliable data exists on the actual percentage of deformed fish being caught downstream from the oil sands.

- But it may range from two to 20 per cent, says Schindler.”

Lake whitefish



Other facts

- Population of Fort Chipewyan has a cancer rate 30% higher (Source: Dr Micheal Sauvé)

- Is the poison in the river responsible?

- Forestry industry can also have an impact on the quality of water and biodiversity in general

**Our Idea: Solution
Japan and Canada
can work together**

Toshiba Lagoon technology can fix the situation

- “Lagoon”, an innovative facility introduced by Toshiba
- Purpose: healthy diversity comes back!

Biotope

- as a final process of purification
- a place which allow species to be alive

The location

Yokohama, the second largest population in Japan



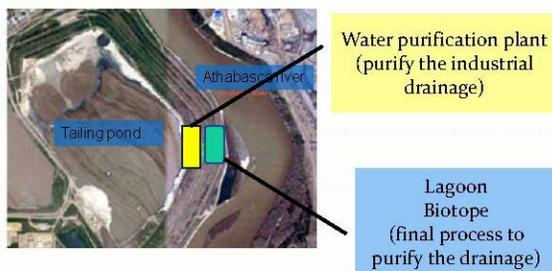
Structure of Lagoon



Roles of the Lagoon

- Supervising water quality of industrial drainage
- Creation of the area where species can inhabit
- Creation of the place and the opportunity to touch nature

Canadian oil sands can introduce the Lagoon technology



Biodiversity in the Lagoon

- Living space for diversified species in an urban area
- There are many kinds of birds, plants, insects that live in the lagoon
 - 192 kinds of plants
 - 31 kinds of birds
 - 12 kinds of dragonflies
 - 22 kinds of butterflies
- Known as birds “International Airport” that connects countries around the world



セグロカモメ/Herring Gull



タコアジ/Penthorum



アカボシゴマダラ/Hestina Assimilis



ニホンカナヘビ/Takydromus Takydromoides

Variation in Animal Population

Research Years	Research Categories					
	Plant Life	Birds	Reptiles	Amphibians	Dragonflies	Butterflies
2005-2006	186	32	1	0	11	14
2008	190	39	1	0	11	17
2009	194	31	2	0	12	22



Change in the Proactivity

August
2005



1 Year Later

August
2006



Benefits of a Lagoon in Alberta



FEEDBACK AND COMMENTS FROM STUDENTS

CANADIAN STUDENTS

JACAC was a really insightful, challenging, and exciting event for me. I got the opportunity to interact with my peers from a different country and culture to exchange ideas on not only the environment but also on different cultural practices. I think the greatest benefit I have obtained from this academic forum is a better understanding of cultural and ideological differences, and how to work to communicate and cooperate despite these differences.

The neatest part about the cultural exchange was that it happened not just between Japanese and Canadian students, but also just between Canadian students. Having travelled to Quebec previously, I already knew that the place was very different from the rest of Canada, but now having met people who live and grew up there, I am beginning to understand more about the culture and practices there, and how we're still so similar despite our differences.

I also thoroughly benefited from and enjoyed the exchange of ideas between all the students with their many diverse educational backgrounds. Having to exchange ideas on conservation and the environment with people in nutrition, biological sciences, political sciences, engineering, economics, and many more areas, was truly an engaging experience.

The social activities and ability for me, as the local participant, to stay in the hotel with the rest of the participants, was crucial to the facilitation of communication and understanding between the other participants and I, especially given the short duration of the forum.

For future forums, I would suggest that the presentation topics be given out near the beginning of the week and not near the end of the week, so that students can have time to discuss and think about the topics beforehand. I would also suggest that there be more time allowed for the social/cultural activities that are iconic to that country/region's culture (e.g. give some time to go skiing, even for half a day, at Banff for this forum – we did have a day in Banff, but wasn't given the option to go skiing for the day, perhaps, this can be an optional arrangement for future participants in other locales).

Overall, the Japan-Canada Academic Consortium was a wonderful eye-opening experience that I will benefit from for many years to come. I have already been able to talk about my experiences from the forum and relate them to almost all the classes I'm taking this semester! Thank-you so much for this fantastic experience!

- Anita Fung, University of Alberta

The general theme for this year's forum was "International Trade and Environmental Sustainability, with sub-themes of Climate Change, Bio-diversity, and Food Security." I learned a great deal about the problems that Canadian and Japanese societies face now and in the future, and how we can try to implement some initiatives in hopes of reducing or eliminating the negative consequences of climate change.

My group presented on the topic of "How Canada and Japan can Collaborate to Reduce Oil Sands Air Emissions."

Inside the classroom, my favorite part of the conference was the diversity of presentations ranging from a representative from the Department of Foreign Affairs and International Trade to the President of Japan and Canada Oil Sands Ltd. Company in Alberta.

Outside the classroom, I enjoyed all of the cultural activities, especially the trip to Banff. Moreover, the friendships that I was able to cultivate with the other students from Canada and Japan are going to last a long time. Singing karaoke was by far my favorite cultural activity of the week.

This forum experience has influenced me to reevaluate my career plans to encapsulate a more global perspective. The Japanese culture and economy is much more familiar to me after this conference, and I would be more inclined to pursue a career in Japan thanks to JACAC.

- *Robbie Saada, University of Prince Edward Island*

I was a bit nervous before going to JACAC 2011. I didn't know exactly what to expect from that experience. Finally, I had no reason to be nervous, because the organisation was great. Everything was well organised so we could benefit from our exchange experience. I appreciate the fact that the emphasis was put on create relationship between Canadian students and Japanese students. The fact that everything was mixed (Hotel room, Oral presentation), helped Canadians students know the Japanese Students better and quite quickly. I also liked the afternoon discussion session because it helped us confront our point of view on several issues with the one of a different culture. Sincerely, I heard few things on Japanese people because coming to Edmonton that finally weren't right at all when I had the luck to ask them and know them better.

As a Canadian student, I also found the location of the forum interesting because it was in some way related to the forum subject. As a French Canadian, I was really curious to discuss environmental issue with my fellow from Japan but also from Alberta. For us, Oil Sands seem so far away although we heard a lot of think, mostly bad on it.

I want to thank everyone who organized the Forum in Edmonton at the Prince Takamado centre. I also want to thank everyone who participated, because as a result, it was a wonderful experience.

- *Jean-François Caty, Université de Montréal*

The best education, so often, happens outside of the classroom in environments which take us away from our comfort zones and cause us to think from other perspectives; this was confirmed for me at the Japan Canada Academic Consortium (JACAC) student forum that took place in Alberta during the week of February 21st. UPEI is a partner school in the JACAC agreement which links Canadian and Japanese universities. My work as a student assistant in the International Office on campus has exposed me to many travel and education opportunities of which, for various reasons, I had previously been unable to take advantage. However, when the opportunity to travel to Alberta as a participant in this forum arose, I applied with not a minute to spare and was pleased to be accepted.

I arrived in Edmonton as one of three representatives from UPEI and was surprised, and relieved, to find that the group of participating students was much smaller than I had expected. With only 8 Canadian

students and 18 Japanese students, we had plenty of opportunity to get acquainted over the week and form lasting friendships. Our mornings were filled with lectures from University of Alberta professors and guest speakers on such diverse topics as sustainable forestry, Japan-Canada trade relations, the impacts and politics of climate change, and even the Alberta oil sands industrial practices. In the afternoon, we often found ourselves in large and small group discussions attempting to make sense of the interconnected problems of economy, environmental sustainability, biodiversity, and food security from our different cultural perspectives. In our free time, we visited Hawrelak Park and the West Edmonton Mall, enjoyed a day trip to Banff National Park, and had many fun and, often, insightful conversations about culture and our respective lives as students in Japan and Canada.

By the end of the week, we had made our way to Calgary and, being placed in groups of 3 or 4 students, were given the task of presenting on one of the sub-themes of the forum: biodiversity, climate change, and food security. The results of this assignment were astounding; the cross-cultural approach to these topics produced thoughtful and comprehensive presentations, which often featured practical solutions for problems. One example of this was a proposal to reduce the level of pollution in the Athabasca river by installing artificial lagoons at areas of potential oil sands production run-off; this practice has already been implemented in many industrial areas of Japan, with great success measured by increased biodiversity and cleaner water.

Upon returning to PEI, I know that the three of us students who were chosen to attend this conference feel that the world is a much smaller place. Perhaps, we are also hopeful that the future is brighter than it seems, knowing that there are friendly faces on the other side of the globe who are helping us create solutions for a healthier and more sustainable tomorrow. I encourage the International Office and UPEI to continue their JACAC partnership and to continue supporting such educational opportunities as this student forum.

- Krista-Lee Christensen, University of Prince Edward Island

To me, the JACAC forum was truly an amazing experience. First off, everything was really well organized: transportation (flight, shuttle, bus, etc.), meals and accommodations were neatly planned and chosen. The forum schedule, whilst being very busy with conferences and group discussions, still allowed us to have enough free time to bond with other students from Canada and Japan. This helped us develop quickly a strong team spirit, which not only leaves me with fond memories of the people I have met, but also definitely contributed in enhancing the quality of cooperation and exchange throughout the forum. This brings me to my second point, which is that I have learned a lot from the academic portion of the event. The speakers were interesting and each had something of their own to bring to the discussion. I think that having an oil industry representative was a great idea and should certainly be considered again for future years. The group discussions animated by Shari and David were stimulating and enriching. I enjoyed working on the presentations for a full day and I think this format should be maintained in following editions of the forum. The only suggestion for improvement that I have concerns the venue of the activities in Calgary. Perhaps someplace with small conference rooms and equipped with computers and printers would have facilitated the group work. Otherwise everything was perfect, and I would like to thank deeply everyone who participated into making this forum possible. I am only sad that it is already over.

- Eric Sullivan, Université de Montréal

My experience at the forum was absolutely incredible, I enjoyed every single moment of it. It was amazing how we socialized together from different cultures and built strong friendships during that short period of time, I came to realize people share the same values regardless of place of birth, social status or lifestyle. The mutual respect and care was the key to developing a community of the individual participants. I, as a Canadian member of the forum felt responsible to welcome the Japanese members many of whom were visiting Canada for the first time. I contributed to a happy atmosphere by being open about myself and making others feel comfortable in a new environment.

Climate Change as the theme for the forum was a wise choice as it connected all of us from various academic backgrounds to think back to a common concern of all nations. Working in groups all of us had the opportunity to share our ideas as a leader or a group member, while talking, listening or guiding the conversation. I learned cultural impact on different approaches towards group work (group vs. individual-focused). I am new to Canadian winters myself and I already knew the weather I would experience during the one week at the forum would be the coldest in my life, however I challenged myself to enjoy a true Canadian winter at its extreme and realized the warmth of happiness and friendship melts the ice and reveals the beauty of winter.

I cherish the opportunity that was given to me to learn from and contribute to the forum as well as experience the mix of Japanese and Canadian cultures. As a future intellectual educated member of the society, I will apply my learning towards a green, peaceful and happy world.

- Maryam Azh, York University

JAPANESE STUDENTS

I first would like to thank everyone involved in this forum, especially to U of A for hosting us and organizers both in Canada and Japan. At the closing ceremony, I was surprised to know that we were supported by many people from various fields.

I've gained lots of valuable things from this forum, but here, I'd like to write mainly about three things.

The first thing I found is that we, especially the young are at the centre of change, or the movement of our world today. In order to be the power to change, we need to study, contemplate and exchange the opinions with people from different backgrounds. This forum was the best way and place to share ideas or knowledge that each of us have.

Second, I gained a new perspective to look at my life. If I were in Japan and wondering about my life alone, I might have never thought of making a contribution to the world. Now as a senior, I've decided to seek for a career as a teacher to contribute to the society. Being a teacher, I want to spread the knowledge and experience I've gained in this forum to the children who are going to be in the world's driver's seats. It is sure that we all need to cooperate to make a better change and everyone has a role to make the change happen.

I'd like to say this with loud voice that friendship is the best present that I've gifted from this forum. Everybody has devoted themselves deeply, and that's why we are all special friends. Especially now, Japan is

in a threat of recuperating due to the massive earthquake and we're very delighted to hear that Canadian friends are thinking of us very deeply. I hope that we'll do our best to make the relationship between Japan and Canada a better one.

I'm so pleased to be able to participate in JACAC2011 forum. JACAC forum was the most precious studying experience in my life. I hope that JACAC forum establishes long history in the future, and I'd like to make a contribution to the forum somehow in a long term.

- *Moe Kitagawa, Sophia University*

Before participating in this forum, I did not have much knowledge about environmental issues in Canada even though it's the country I grew up in. I never had the opportunity to study about this topic and since I was going to graduate in March, I thought it would be a chance to learn about something new and I decided to participate.

During the forum, I was able to listen to experts talk and present information about current problems in Canada and future projects that may be taken place to solve the problems. After listening to their lecture, we had discussions and were able to talk within and share knowledge and ideas. Even though I did not have much knowledge compared to others, I tried my best to participate in discussions and was able to listen to other opinions and ideas which I thought was a great way to learn. Also I think having to present a project at the end of the week was another good way to learn about a certain topic because it allows us to do research and understand what we are presenting about.

Also, I thought the cultural activities were good to make better relationships with others and we were able to make good memories during the forum. I sometimes thought that there should have been more mandatory get together for dinners or after classes or at night. Our rooms were separated from others so sometimes; there would be people we would not see outside of the classes.

Overall, I thought it was a great forum. The topic was good and interesting; the professors gave us lectures that were educational and easy to understand and I was able to have a lot of fun during my stay in Alberta. I would participate again if I had the opportunity but I would also recommend to others because I thought it was a great experience for me.

- *HiroYuki Takikawa, Josai International University*

First of all, I would like to express my thanks to those who worked for on forum for giving us a great opportunity. I especially would like to thank the Prince Takamado Japan Center, Japan-Canada Academic Consortium, Embassy of Canada, lecturers and my university.

I would like to write this essay based on what I have especially noticed from the forum, leaving more general opinions to others.

What I learned from the forum:

1. It was hard to discuss with other students, who are not economics majors, over solutions to environmental or social problems from an economics perspective. However, whatever project we work on, considering an economic impact on it is important to make it sustainable in an economic system. Therefore, when the explanation from the economics perspective is needed, I will keep it in mind that it alone is not enough to make an argument as understandable as possible.

2. I noticed how useful and powerful economics is when facing various environmental and social problems in the forum, even though I doubted the economics approach in the past. Many social systems cannot be sustainable without the principles of economics. For instance, protecting only one company in particular for environmental reasons may lead to corruption and the economy might collapse as a result of giving up fair competition. On the other hand, I understood some complaints that maintaining the efficient economy is preferred to solving environmental problems. We discussed the topic of relaxed international trade may be preferred over conserving natural resources. Therefore, I came to think there are still many problems that economists need to solve while considering environmental aspects. It is better if we can solve both economic and environmental problems.

- Hiroki Yonetani, *Kwansei Gakuin University*

It was good opportunity for me to go to Canada and learn climate change, biodiversity and food security because I have not studied them so much. However, I could not explain my idea perfectly during the discussion since I needed many processes to do it; understand everyone's idea, think my idea against it in Japanese and translate it in English. I was keenly aware of the lack of my proficiency in English and I have decided to study English hard.

During the forum, I could absorb a lot of knowledge through the lecture and cultural activities such as the short trip to Banff. I was excited very much when I saw the Canadian Rocky and thought that we have to think about nature to coexist each other.

Lastly, I deeply appreciate this wonderful opportunity and people who gave me the chance to learn many things. Since I was second grade, I did not have detailed knowledge and could not make a contribution to my group when I join this program. But this forum gave me the path which I should do in my school days. I want to spend my school days with many memories of this great experience. Thank you so much.

- Chihiro Komtasu, *Meiji University*

JACAC student forum was productive and enjoyable for me. There were many discussions about environmental issues with students who are from many kinds of major such as engineering, economic, law and so on. There were also constructive lecture, group work, presentation, cultural activity etc. Looking back on this forum, I would like to talk about discussions among others in this paper.

One of the reasons why I participated in this forum is to want to discuss environmental issues with people with multiple backgrounds. From this, I would like to gain one's sense of value. I think it would be very valuable experience. Then I achieved this objective because there were many types of discussions which were suggested by facilitators in this forum. These are World Café, Open Space Technology and so on. World

Cafe is small-group discussion with reshuffle of members each question which was asked by facilitators. This discussion enabled us to discuss with many people and also we got to know each other better. Open Space Technology is also small-group discussion. First, facilitators asked us to point to topic which we are interested in about environmental issues. Second, each person chose one topic and discuss. There is also large group discussion. I could gain many opinions from the view point of other major, although it was very hard for me because all topics were discussed in English. It was very great and interesting.

In conclusion, I had a wonderful time in this forum. It was an unforgettable experience. I could get to know many fantastic people and gain some knowledge from discussions. I think it is important to hear a broad range of views when we discuss anything. Therefore, I would like to continually discuss anything with many people and consider deeply based on this experience. I am thankful to host and all things for providing an invaluable opportunity for me.

- *Sho Maebara, Nagoya University*

'I must keep progressing' this is the best thing I have learned from JACAC2011 forum. All the people I met at this forum made me think so.

I applied to this forum to improve my attitude toward studying. I have spent most of my life in Japan and my view was so much that of Japanese. Therefore, I wanted to expand my way of thinking and take in new ones by discussing many people with various backgrounds.

My days during the forum were more than I had expected. All the members were so motivated toward learning and showing their opinion and studying in foreign culture with those new people gave me fresh air. I was really nervous about my English before arriving at Canada, but everybody supported and tried to understand me and so then, I could somehow participate and contribute to discussions and group presentations.

Cultural activities were also fantastic experiences. There were much more activities and free time than I had thought, but those time away from strictly study made me refresh and enjoy the lectures or discussions more vividly. In addition, through those times, we could communicate and know each other and those communications were as impressive and beneficial as things I had learned from given schedules. I noticed that I had known about Canada far less than I had been believed and Japanese cultures known by Canadians were also less than I had expected. I even did not know the population of Canada, and Japanese food except sushi was not widely known there.

All those experiences changed and stimulated my mind. I strongly felt that I should be more active and positive to express my own ideas and to do so, I should have to have fixed idea always and prepare the words to explain them simply to others. The members' high knowledge about language motivated me to try harder on studying foreign languages, and realize the importance of commonly understandable language. Since I have been back from Canada, I start watching Japanese news in English, restarted studying French grammar, and reading books not just for fun but for broaden my comprehension. I am looking forward that if I had another chance like JACAC2011, I could feel myself greatly advanced than this time. I truly appreciate everyone who gave me this wonderful experience.

- *Junko Yamada, Tsuda College*

This forum was very fruitful, and I would like to thank everyone who was involved in this forum. This forum was just a week, but I could broaden my view about environmental issues by both listening to presentations and discussing with other participants. I could also enjoy the great nature of Canada, and experience the social and cultural interaction with the Canadians.

The topic at the forum which was food security, biodiversity, and climate change were really interesting, and I thought it was a good topic. These three topics have a significant impact in the world nowadays, and it was a great opportunity to think about those topics. The presentation given by the professors were straightforward, and I could gain a lot of knowledge. Also the student group discussions were very interesting. The style of the group discussions such as world cafe and the open space technology were new to me, and I could gain a lot of it. Every person had a chance to talk and interact with the other members. In that way, I could get involved in the discussion and also get used to talking to other people.

I first thought that only having a day to prepare the presentation is too short, but I think every group prepared well and had an interesting presentation. It was a pleasure to have an opportunity to do a presentation in front of representatives of Canada and Japan. This forum was a very good experience and I could gain many things from it. Lastly, the friendship I made with both the Canadian and the Japanese students stands out in my memory. I surely think that this forum was valuable for both Canadians and the Japanese, and I hope many people could experience this by attending the forum.

- Lisa Hayakawa, Hosei University

I remember the sharp cold air in Edmonton and Calgary now.

I had a good experience on the forum in Canada.

I am happy to meet lots of fantastic people, beautiful and wild views. Banff National Park has an astonishing view!!

I would like to say thank you so much to lots of people who have worked for this forum.

This is the first time for me to join a forum abroad.

I found the lecture and discussion styles between Canada and Japan are different. I found that the Canadian style was aggressive and it was hard for me to ask some questions while presenters were speaking and also interrupt someone's talking and jump into the changing topic during discussion. This is my theme from now on. I would like to put this experience to account when I attend academic forums in the near future.

I remember the group works and last day's presentation. I have good mates. Thank you for Lucas and Mariko.

Ph.D. students were quite dependable. Their help was indispensable for our discussion and activity. I would like to imitate their leadership.

I learned "sustainability" a lot from homework materials, lectures and group works. I would like to continue to study for my major "Global marketing" by always thinking about "Environmental sustainability".

- Toyoko Funahashi, Meiji University

I could have a great time through this forum. Thank you for giving me valuable time. On the first day, I was a little confused to stay with some students in the same room at the hotel, but it was the most important time for me. In the daytime, I couldn't say any words in the presentations by guest speakers or group discussions because my English was so poor and I didn't have confidence. However, at night, I communicated with my roommates naturally to live together. We chatted for long time every night. Also I could know about some Canadian cultures by cultural activities. It was very very cold in Canada, but it was fresh surrounding for me. I enjoyed skating, shopping, drinking, eating, talking and so on. I have only one complaint about the time for final presentations. It was not enough to research and discuss and make powerpoints. Except that, everything was wonderful!!!!!! If I have a chance, I want to go to Canada again. I want to help you because I heard the next JACAC students forum would be carried out in Japan. I will treasure all memories and people in Alberta forever. Thank you so much!!!

- *Shoko Kano, Nagoya University*

FORUM EVALUATIONS AND SURVEY RESULTS

An online survey was conducted to get student evaluations of the forum. Below are some of the results.

How do you rate the following arrangements made by the organizers:

	Outstanding	Above Average	Average	Below Average	Poor
Flight arrangements	6	8	5	1	0
Ground transportation	7	10	2	1	0
Accommodation (Edmonton)	14	5	1	0	0
Accommodation (Calgary)	8	8	4	0	0
Meals	4	6	8	2	1
Forum venue (Edmonton)	12	7	1	0	0
Forum venue (Calgary)	9	7	4	0	0

Please explain your ratings.

1. A few small issues with the hotel in Edmonton. Not JACAC's fault but keys were faulty and rooms were uncomfortable temperature.
2. Organizers did an awesome job and we truly enjoyed the forum!
3. pizza was great but overall the quality of food was...not good.
4. I couldn't set up the schedule for before and after the forum because the flight arrangement and meeting time were not informed until a very close date.
5. Flight: lots of waiting time
6. no inconvenience life in Edmonton and Calgary
7. Everything was superbly organized. The only comment I have to make is the online forum. The documents were sometimes difficult to download.
8. I think it would have been better if we had more meals together.
9. no complaints! The rooms were all clean and functional.
10. Basically, all satisfied me. Accommodation is especially very good although there are just two beds, not three.
11. The reason I checked "below average" for ground transportation is because of a bus for Banff was so late. All the other ground transportation was outstanding.
12. Having to use megaupload to access the articles/readings was a little frustrating.
13. There were of course more important things we did actually care about than the quality of service. I'd personally rank the whole forum Outstanding in general =)
14. Edmonton's hotel was really good! Calgary's was somewhat a little smelly ;(

Please rate the following aspects of the JACAC Student Forum:

	Outstanding	Above Average	Average	Below Average	Poor
Orientations (including journal assignment)	5	9	6	0	0
Presentations by guest speakers	10	9	1	0	0
Afternoon group sessions	8	8	4	0	0
Group activities	13	4	2	1	0
Tour of Banff National Park with Parks Canada	14	5	1	0	0
Group presentations (Feb. 27)	12	7	1	0	0
Reception (Feb. 27)	13	6	1	0	0

Please explain your ratings.

1. The preparation time wasn't enough however the teamwork worked out well and everybody did a great job. Every group has different ways of presenting which gave a lot of spices for the forum at the end.
2. we basically had only 2 days to prepare for our presentations. if we could've chosen our own question at the first 2 or 3 days beforehand, i think we could've started to prepare for it much earlier.
3. I think we should be in charge of the topic each has already learned in their school because most people were assigned a topic they do not know and the content of presentations was not professional.
4. it was better each group could have more time to prepare presentation.
5. I was especially happy with the time given for preparation. Having a full day was great, but I would not have wanted more (it would have been perhaps a bit fastidious)
6. The topics and questions were fine but maybe there should be more time to prepare so we do not feel like we are in a rush and feel more pressure.
7. that was exactly the kind of challenge i love. everybody did a fantastic job!
8. I don't know how much did assignments contribute to discussions but everyone have their own opinion about topics. It was good. Regarding amount of time for preparation of group presentation, I feel it was little bit short.
9. I think amount of time scheduled for presentation was enough, but I wanted the time for discussion in presentation groups in earlier day.

Please rate the difficulty of conducting the student presentations.

	Extremely Difficult	Fairly Difficult	Average	Fairly Easy	Extremely Easy
Student presentations	0	13	7	0	0

Please explain your ratings.

1. Had some issues getting started and solidifying our topic.
2. As I wasn't an expert for the topic, I felt the content of the forum was difficult. However it was a very good learning experience for everybody and I'm pretty sure each person learned something new from the forum and people that we met.
3. i wanted to read each group's summary (what's this presentation's conclusion and the reason why they do think so) before their presentations so that the Japanese students (including me) can understand more in details.
4. I basically learned environmental problems through lectures, discussions and fieldtrip. I found out how difficult to understand the different topic due to different technical terms, idioms and background. However, this fact did not seriously hamper my understanding of the lectures.
5. as a presenter: it was a little difficult to finish presentation in 10-12 minutes. as an audience: it was fun to know topics by fresh aspect each group focused. but Q&A time was too short to question that get the point to dig more deeper each topic/question
6. We had enough time and instructions were clear. I liked that we were free to be creative.
7. The presentations were easy to understand and the visuals were good.

8. we were presented with topics of which few of us had in-depth knowledge. over the course of a few days, with intensive learning from experts, we studied the material. finally, we were called upon to present in front of many esteemed guests, and all the teams succeeded brilliantly. the challenge and reward were paired perfectly.
9. Topic which was given by organizers is sort of vague. It means that we can consider many things but it is difficult at the same time.
10. Since everything was done in English which is foreign language for me, it could not be easy, but I rather enjoyed that difficulty so this is not a negative rating.
11. If we had more time, we could do more thoughtful discussions...
12. Time constraints
13. The presentations from some experts were really good and I could understand the topics. But the group session was pretty hard for me. I strongly noticed that I have a poor skill to explain what I am thinking and I should have more knowledge about my major.

Please let us know what you liked most about the JACAC Forum.

1. If I had to pick one thing, I would have to say that Banff is stupendous. I only wish we had more time there! The whole experience from the Park to the town to the dinner was awesome!
2. I really enjoyed everything which was included in the forum. If I have to pick one, I'd say that I enjoyed encountering new people and sharing ideas and opinions from different cultures to different way of tackling environmental issues. Gathering together at one place and discussing various things truly made a new viewpoint to my life.
3. Fraternity
4. personally the trip to the Banff National Park was great.
5. Field trip to Banff. Learning environmental problems in Canada. Noticing me that I need more English skill to make a success in North America.
6. Hotel was comfortable.
7. Lectures
8. To be able to meet people at the same generation who have same interest from different culture.
9. Meeting nice people. We had sufficient free time to do stuff together which was great.
10. I liked the cultural activities and the interaction between the students.
11. I was happy to have the opportunity to share ideas and discuss about the theme with people who were not Japanese.
12. Being able to meet new people and learn about a topic I have I never studied before. Learning about environmental issues and being able to share ideas and hearing other people's opinions.
13. late-night conversations were a great opportunity to exchange views with my peers. there was a lot of bonding during those informal meetings.
14. Discussions. I could get to know each other better and gain some knowledge.
15. Communication with new people. Knowing various opinion and culture were so stimulating.
16. The interaction with other students.
17. The high level of interaction between participants, speakers, and the organizers.
18. The people!
19. Field trip to Banff Closing ceremony--there were many chances to meet lots of people. I honored myself because I had a chance to talk with many officers from the government and top-quality company.
20. i was very happy to make many Canadian and Japanese friends in this forum. we had a very good time through the cultural activities and staying together in the hotel.

Please let us know what you liked least about the JACAC Forum.

1. Besides saying goodbye to some great friends, it would have been nice to have a few more meals included.
2. I have no complaints at all! Like I mentioned above, I liked everything involved in the forum. (One thing I'd say would be that the fact we couldn't do ice skating was sad. But we figured our way to have fun!)
3. Nothing
4. we've got only plain normal T-shirts as the prize on our presentations but if it was like T-shirts with Alberta University's logo on, we would've been more satisfied i guess?
5. Advance notification of the overall traveling schedule was not enough. I wanted to know where and when to meet at the first day, who purchase a travel ticket, what are furnished in hotel, the availability of Internet access and so on. I wanted to purchase an air plane ticket by myself because it is more flexible.
6. I think the forum was disorganized a little bit such as cultural activity and time for preparation.
7. Each motivation of participants is very different. Study or activity
8. it made me feel a little restive to be with who are not introduced us officially in venue. i wanted to be introduced everyone who were in venue even if they didn't have direct connection with us students.
9. Nothing.
10. There was nothing that I did not like.
11. I am extremely satisfied with the JACAC forum, and I have not much thing to say bad about. However, the weather was too cold.
12. I thought there should be more mandatory get-togethers for dinner or events after we finish our day at the University.
13. no real complaints, but i thought that the theme of food security could have been effectively worked into the meal plan at the forum.
14. Skate which is one of the cultural activities. I looked forward to skating but we couldn't. However, we slide on the ice without skate. It's OK.
15. The last day's check-out time was too early and I could not say goodbye to everyone. I wanted some time for greeting each other on the last day.
16. Food. It was so unhealthy to keep eating junk food.
17. My unfamiliarity with how the week would progress. Maybe send a website link to future participants, so they can see the scale and arrangement of the forum.
18. Early morning sessions =(
19. Big group presentation I used all energy just to follow many comments from Canadian students.
20. Presentation by guest speakers were a little boring because their topics were sometimes too difficult for me to understand them.

If you have any suggestions on how the JACAC Student Forum can be improved in the future, please let us know below:

1. Perhaps another relevant afternoon fieldtrip as a way of integrating learning and fun.
2. The forum was successful and every participant enjoyed it. If we had more time, I wanted to visit some museums or places that have connections to environmental issues. I know there are a lot of facilities in Canada which is related to environmental issues. And also, Japanese students should've given more information about their own country if possible. But because of language barrier, we couldn't share our ideas which I regret most. So we should have more assignments before the forum is held so that everybody will be more engaged in the forum.
3. so as i mentioned above, if we had introduced ourselves (on JACAC forum website or opening ceremony) through our own presentation slides about what we do as major in college, so that we could've communicated as soon as the opening ceremony started. overall the students in JACAC were awesome! i think the forum this year was successfully done!
4. 1. Include a topic of international trade in a lecture if it is written in a theme. 2. Let students purchase an airplane ticket by themselves. It is more flexible for students to make a plan by themselves. 3. Let students know how much money is required and how much money is recommended. I did not bring \$300 if it is optional. 4. Let students know whether internet access is available or not in advance. 5. Let students know what are furnished in hotel. I had no idea what to bring for the daily needs such as about food, towel and cutlery. 6. Possible to lower the expenditure of subsidy to students by letting them incur some percentage of the expenditure because they try to minimize the expenditure. If the subsidy covers everything, that is not efficient.
5. Make more clarify the purpose
6. Save money on the hotel rooms by getting some without full kitchens (which I don't think were used very much except for breakfast) but offer free breakfast. Having a fridge was nice though.
7. I think maybe there should be more time to prepare for the presentation. During the first couple of days, groups should get together a little bit more and talk about their presentation.
8. great work! thank you so much.
9. I have three suggestions. 1. To show photos or movie about previous forum in order to understand briefly about JACAC forum when orientation is held in next forum. 2. The participants give presentation about what they study or what they make research for understanding their backgrounds. 3. To hold a party such as welcome party by previous participants. This party is like JAGSA dinner. For example, JACAC forum will be hold at Ritsumeikan University, Kyoto, next year. Therefore, some of previously members hold a party for interacting and welcoming.
10. Numbers of participants were not equal among Japanese and Canadian so I wish we had about equal numbers of them. I think it will progress more communication between two countries.
11. 1. Meals should be prepared to keep students healthy. 2. We need more time for the preparation. It would be great if there is a short group work session every day.
12. Increase forum to 2 weeks please!
13. It was a great opportunity to know my and another country. Native cultural activity is really nice event to keep this forum meaningful and attractive!
14. we need much more time to prepare for final presentations.

PHOTOS



Undergraduate student participants from Japan and Canada at a morning lecture.



Undergraduate student participants in group discussions.



Forum participants receiving a guided tour of Banff National Park with Parks Canada.



Preparing for group presentations at the University of Alberta's Calgary Centre.



Students enjoying the JACAC Student Forum closing ceremony reception at the Calgary Centre.



JACAC Forum participants having a conversation with MLA Wayne Cao at the reception.



The four winners of the Leadership Prizes (sponsored by JACOS).



JACAC Forum participants in conversation with former Senator Dan Hays.



The entire group of Forum participants included 8 undergraduate students from Canada and 18 undergraduate students from Japan. Also in attendance, Mr. Wayne Cao, Government of Alberta MLA (far left), Dr. Etsuko Katsu, Vice President of Meiji University (third from right), and Ms. Christine Nakamura from the Canadian Embassy in Tokyo (far right)

IN APPRECIATION

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