

Japan-UK joint workshop on
Policy Integration between
Environmental Assessment and Disaster Management



Chiba University of Commerce | 30 Nov.- 3 Dec. 2012 | Ichikawa, Japan

Final Program



UNIVERSITY OF
LIVERPOOL



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Dear colleagues from UK,

We Japanese colleagues in impact assessment heartily welcome you. We had very sad experience in March 11, 2011 by the attack of the huge earthquake. Japanese society was damaged not only by the earthquake but also by the Fukushima Dai-ichi Nuclear Power Accident. Earthquake is a natural disaster and the nuclear accident supposed to be caused by mostly human errors such as mistake of the site location, ill design of the facility, and mismanagement of its operation. By having the tragedy, we learnt again that human beings have to be more cautious against disasters especially in the age of vast application of science and technology. For precautionary approach of human actions, IA should have quite important role, sometimes it is critical. The colleagues of IA studies and practices collected here in Tokyo will have intensive discussions based on rich information exchange crossing over wide scope of the field. In this event, participants would have not only presentations and discussions but also experience of visiting sites attacked by the earthquake and a nuclear plant there. Though in only a few days, the participants from UK and Japan must have an opportunity to consider how IA would be contributable to disaster management. And the result of our activity should be sent to the world afterword.



Sachihiko Harashina
Professor, Chiba University of Commerce
Professor Emeritus, Tokyo Institute of Technology
Past president of IAIA



Dear participants,

Welcome to our Japan-UK workshop on Environmental Assessment and Disaster events. It's a great pleasure seeing you all here in Tokyo! We have been able to gather a good range of internationally renowned speakers and the next few days promise to be hugely interesting. Can I stress that we hope that as many of you as possible will be able to provide us with your written contributions after the event so that we'll be able to publish a book on this crucially important and emerging topic. Personally, I hope that you will find the presentations over the next couple of days inspiring. And I'm looking forward to a fascinating technical visit to Miyagi Prefecture. I am very grateful to our Japanese hosts, in particular Professor Harashina and Dr Ryo Tajima, for the excellent organization of this event. A particular big thank you is also due to Tom Gore and Ryo, who (probably during one of their pub crawls in Liverpool last year, when Ryo did his post-doc there) had the idea to this event. Enjoy!

Thomas B Fischer
Professor, University of Liverpool

Schedule

Day 1 (Fri, 30 Nov.)

9:00 ~ 9:30	Registration
9:30 ~ 10:00	Opening plenary, Photograph
10:00 ~ 10:40	Keynote Speech
10:40 ~ 11:00	Short Break
11:00 ~ 12:00	Session 1: Disaster Management for sustainability in the UK/Japan (1)
12:00 ~ 13:30	Lunch Break
13:30 ~ 14:30	Session 2: Disaster Management for sustainability in the UK/Japan (2)
14:30 ~ 14:50	Short Break
14:50 ~ 16:30	Session 3: Youth Session
16:30 ~ 17:00	Wrap up meeting
18:00 ~	Reception (Sky Tree View Restaurant & Bar “REN”)

Day 2 (Sat, 1 Dec.)

9:00 ~ 10:30	Session 4: Disaster Management and Environmental Assessment tools (1)
10:30 ~ 10:50	Short Break
10:50 ~ 12:30	Session 5: Disaster Management and Environmental Assessment tools (2)*
	*Joint session with the Association for Policy Informatics
12:30 ~ 14:00	Lunch Break
14:00 ~ 17:00	Workshop: The potential role of EA in Disaster Management
17:00 ~ 17:15	Closing Plenary

Day 3~4 (Sun, 2 Dec. ~ Mon, 3 Dec.)

Site Visit: Stricken area in Miyagi (see p.12 for details)

Keynote Speech

Sachihiko Harashina

Professor, Chiba University of Commerce

Professor Emeritus, Tokyo Institute of Technology

“Environmental Assessment is Manners in a Sustainable Society - Lessons on Environmental Assessment from Fukushima Nuclear Power Plant Accident”

Fukushima nuclear power accident gave us tremendous lessons to impact assessment. Though, it was impossible to apply EIA to the plant as it had been built in 1960s, after operation, there had been many opportunities of taking measures against great earthquakes and tsunami on the occasions of repairs or periodical test. If Japanese IA system includes a concise IA system, it could be done. Japanese EIA Law was amended in 2011, but no concise IA system was introduced, which should be manners in a sustainable society. The Annual number of environmental assessment on national level in Japan is only about 20, which is quite small compared to 30,000 to 50,000 under NEPA in the US. This is because Japanese systems have no concise IA like EA under NEPA. By the amendment of the Japanese EIA Law, there are some improvements, but the basic concept of environmental assessment was not changed. Why this was happened? There is a long history of struggles between pro development and pro environment in Japan. But we have to learn from the tragedy of Fukushima.

Thomas B Fischer

Professor, University of Liverpool

“On the ability of environmental assessment to support better planning and management”

Environmental assessment (EA, including both, SEA and EIA) has been attacked by some particularly vocal critics for having no more than a negligible impact on policy, plan, programme and project making processes and for being largely ineffective. In this context, reference is frequently made to some particular poor case studies. In this paper, and based on the empirical evidence provided by various studies, I will argue that overall these claims are spurious and that in many countries and systems EA is able to contribute significantly to thousands of sustainable and better decisions. In fact, when compared with other decision support tools, including for example cost-benefit analysis, the instrument is proving to be remarkably robust.

Presentations

[15 min. presentation followed by 5 min. Q & A]

----- Day 1 (Fri, 30 Nov.) -----

Session 1 (11:00~12:00): Disaster Management for sustainability in the UK/Japan (1)

Chair: Takehiko Murayama

Masahiro Osako

National Institute for Environmental Studies

“Current status and future challenges of disaster waste management in Great East Japan Earthquake”

Firstly, the main issues and countermeasures regarding the disaster waste management in Great East Japan Earthquake including the radioactively contaminated waste management will be presented, which will be followed by the discussion of the remaining future challenges. Finally the prepared conditions necessary for robust waste management system in the emergency of the disaster will be proposed.

Andrew Buchanan

Chairman, IChemE Environment Special Interest Group

“COMAH Safety Report – Environmental assessment tool aimed at preventing major accidents to the environment”

The Seveso Directive is the main piece of EU legislation that deals specifically with the control of on-shore major accident hazards involving dangerous substances. It is implemented in Great Britain through the Control of Major Accident Hazards (COMAH) Regulations.

This paper will describe the requirements of a COMAH Safety Report specifically focussing on the guidance and methodology that should be applied when identifying potential impacts to the environment, identifying appropriate prevention/mitigation measures and developing appropriate emergency response procedures including assessing the capacity and infrastructure that is required to apply the procedures identified. The paper will summarise examples of submitted COMAH Safety Reports and discuss the UK’s Competent Authority’s (The Health and Safety Executive) response to these submissions.

Taiyoung Yi

Researcher, National Research Institute for Earth Science and Disaster Prevention (NIED)

“Post-earthquake town reconstruction applying ‘e-Community Platform’”

In the stricken area of the Great East Japan Earthquake, the post-earthquake town reconstruction is carried out with promotion of the reconstruction work based on the reconstruction plan for livelihood rehabilitation and region reconstruction. For the sustainable post-earthquake town, in addition to an existing situation, it is necessary to take into consideration local inhabitant's value standard to long-term changes of social conditions. This study introduces the example which local inhabitants utilized "e-Community Platform", and suggests the reconstruction in consideration of the trade-off relation between the value standard and the receptiveness of risk.

Session 2 (13:30~14:30): Disaster Management for sustainability in the UK/Japan (2)

Chair: Ross Marshall

Kayoko Yamamoto

Associate Professor, University of Electro-Communications Tokyo

“Information Infrastructure for Recovery and Reconstruction after the Great East Japan Earthquake”

This study considers the extent of the damage caused by the Great East Japan Earthquake and makes proposals for recovery and reconstruction of the areas affected by this disaster as well as for a reduction of the impact of natural disasters that may occur in the future with GIS as an information infrastructure. Due to the fact that social media that used ICT was useful in the days directly after the disaster, it can be said that it is necessary to investigate the provision of an information infrastructure that uses ICT to reduce the impact of disasters.

Nebil Achour, Efthimia Pantzartzis, Federica Pascale and Andrew D F Price

Loughborough University

“Opportunities associated with the integration of environmental and resilience appraisal tools”

Recent research outcomes suggest that the number of natural hazards, both environmental and geo-physical, will increase due to the effect of global warming. Researchers have been investigating various approaches to reduce environmental degradation and to improve the physical resilience to natural hazards. However, most of these approaches are fragmented and when combined with cultural barriers it often results into a less efficient assessment tools. The aim of this study to explore environmental impact and resilience assessment tools with the view to develop a more integrated approach able to assess efficiently both the impact and the resilience.

Tomohiro Tasaki* and Misuzu Asari**

** National Institute for Environmental Studies*

*** Assistant professor, Environment Preservation Research Center, Kyoto University*

“Activities and guidelines of the Japan Society of Material Cycles and Waste Management (JSMCWM) for disaster waste management after the Eastern Japan Disaster”

Shortly after the massive March 11th earthquake and tsunami in eastern Japan, an academic Task Team for Disaster Waste Management and Reconstruction was established by members of the Japan Society of Material Cycles and Waste Management (JSMCWM). All the members voluntarily worked on conveying information from/to disaster area and gathering information into a guidelines entitled, Strategies for Separation and Treatment of Disaster Waste. As an original member of the task team, I will explain how situations the team faced were and how the team reacted to the disaster as well as the outline of the guidelines.

Session 3 (14:50~16:30): Youth Session

Chair: Alan Bond, Shigeo Nishikizawa

Takuya Sugimoto

Lecturer, Chiba University of Commerce

“Tiering system on the amended EIA regulation of Yokohama city”

In Yokohama city, EIA system was introduced in 1980, developed a regulation in 1998, and amended in 2010. SEA-type system, which was named project-consultation system, was introduced as internal system of the local government in 1995. The SEA-type system was abolished and integrated in EIA system when EIA regulation was revised. New EIA system inherited some know-how from former system. This presentation is included in results of interview with the administrative officer involved with EIA division about tiering system to conduct reasonable environmental consideration in early step of project planning..

Samuel Hayes

PhD Candidate, University of Manchester, School of Environment and Development

“Consideration of Flood Risk in UK SEA and SA”

Reflections are presented on the consideration of flood risk in Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA) from four case studies of assessment in UK spatial planning. Data highlight several areas of assessment practice as potentially influential on the

consideration of flood risk in strategic level assessment. Discussion is of key themes identified through document analysis of environmental reports and semi-structured interviews with those involved in each assessment case study. Examples from case studies are given to highlight how each of these themes can influence how flood risk is dealt with in SA and SEA. Themes include; how flood risk is included in assessment frameworks, the use of flood risk data, consultation on flooding, potentially conflicting objectives, how flood risk is included in plan policies, and commitment to plan policies.

Yuki Shibata

Assistant Professor, University of Shiga Prefecture

“Institutionalization and operation of Special-EIA for recovery from the Great East Japan Earthquake”

Recovery Special Zone Act, established nine months after the Great East Japan Earthquake, has excluded the Special Reconstruction Project for the earthquake reconstruction from the application of the EIA Law. However, the Act established Special-EIA for the Special Reconstruction Projects. The Special-EIA is marked by the simplification of the assessment process and the environmental investigation. At the same time, the Special-EIA is also marked by the application of the ex-post environmental monitoring survey and follow-up measures. Now, this Special-EIA is expected to accelerate the environmental consideration in the rapid recovery construction and has been conducted in three earthquake hit prefectures and partially seven prefectures. In this paper, we present the overview of the Special-EIA system and the current situation of the operation.

Tom Gore and Thomas B Fischer

University of Liverpool

“Identifying the factors that support and hinder EIA following disaster events”

In recognition of the close relationship between environmental degradation and the occurrence of disaster events, the importance of fully integrating environmental assessment techniques into activities in the aftermath of disasters has now been widely emphasised. Yet, despite the apparent desirability of such action in helping prevent disaster recurrence, questions regarding the feasibility of this in practice have also been raised. Post-disaster environments generally differ substantially from the normal ‘developmental’ context in which such techniques are usually applied which may in fact make such applications problematic. Using a case study of the situation in Aceh Province, Indonesia, following the impact of two tsunamigenic earthquakes in 2004 and 2005, this paper reports on a study that was undertaken to investigate more specifically the factors which can both impede and support the practice of one EA methodology, environmental impact assessment, following such events in a developing country context.

Keita Azechi

Doctoral Student, Tokyo Institute of Technology

“EIA and Landslide Disaster in Wind Farm Development in Japan”

In Japan, the momentum to shift to renewable energy was enhanced by the Fukushima Dai-ichi Nuclear Accident on March 11, 2011. Wind energy should be one of the important options of Japanese renewable energy policy as in other countries. However, wind farm developments in mountain area produce an increased risk of landslide disaster and it becomes issues of concern of local residents. This presentation focuses a relationship between EIA and landslide disaster in the development and discusses the challenges in current situation and future by specific case studies.

----- Day 2 (Sat, 1 Dec.) -----

Session 4 (9:00~10:30): Disaster Management and Environmental Assessment tools (1)

Chair: Thomas B Fischer

Takehiko Murayama

Professor, Tokyo Institute of Technology

“Integration of Risk Management and EIA”

Great East Japan Earthquake and subsequent a severe accident of Fukushima Daiichi nuclear power plants challenged us about various issues. Through our extremely rare experiences, we are expected to conduct interdisciplinary activities to improve risk management for low probability and high consequence (LPHC) disasters. From these points of views, the following aspects would be covered; re-examination of definition of risks, decision-making system or governance for risk management among various stakeholders, some challenging approaches on better management for ‘beyond assumption’ events, and coordination with EIA.

Ross Marshall

Head of National Environmental Assessment Service, Environment Agency

“EIA, SEA and the UK Civil Contingencies Act”

An important aim of the UK Civil Contingencies Act 2004 was to strengthen institutional emergency planning, civil resilience and multi-agency responses to disaster events. In this context, what strategic role or tactical contribution the practice of EIA and SEA, and its practitioners can play before, during and after an emergency is an important question. This presentation will look at the way in which the Act is asking different groups (including EIA and SEA practitioners) to co-operate. Using the Lincolnshire coast line as a case study, implications will be elaborated on and explained.

Atsuko Masano

Freelance Journalist

“Exemption Clause in Japanese EIA Law in Disaster : Looking into the Functions”

TEPCO’s Fukushima Daiichi Nuclear Power Plant disaster triggered by Great East Japan Earthquake on March 11, 2011 revealed the fact that exemption clause in the Japanese EIA Law was cut out neither for risk management nor post disaster management. Article 52-1 needs to be removed for assessing radioactive effects. Application of Article 52-2 and 52-3 needs careful review for future cases and preparations through lessons learned this time.

Alan Bond

University of East Anglia

“Embedding evolutionary resilience in impact assessment: a post-normal strategy for disaster risk management?”

This paper brings together a number of disparate areas in an attempt to find an improved mechanism for disaster risk management: Impact Assessment (IA); post-normal science; and evolutionary resilience. In brief, the justification for considering this mélange of techniques and theories is that together they offer a better strategy for disaster risk management. IA has been developed on the basis of rational decision making whereby better information leads to better decisions. Inherent in this ‘positivist’ theory of decision making are the assumptions that: a) decision makers behave rationally;

and b) impact assessments practice ‘normal’ science whereby our system understanding is sufficient to associate cause and effect. This article argues that neither of these cases is true, and that IA therefore needs to embed post-normal science thinking to accommodate the uncertainty associated with the outcomes of decisions. Evolutionary resilience is proposed as the basis for achieving this by altering the goals of IA such that they become the ability of the system to change and adapt to the new circumstances (including post-disaster), rather than attempting to preserve the status quo.

Session 5 (10:50~12:30): Disaster Management and Environmental Assessment tools (2)

Chair: Yuki Shibata

Shigeo Nishikizawa

Associate Professor, Tokyo Institute of Technology

“Japanese EIA system and its practice relevant to disaster management”

There is a strong link between environmental damage and disasters. EIA is applied to human activities with potentially significant adverse environmental impacts. It implies that EIA can be a key tool to identify, evaluate and respond to serious environmental issues caused by disasters. Although Japanese EIA has yet to be well-designed in terms of disaster management, some disaster-related issues have been considered in EIA. This presentation will introduce such practices and institutional frameworks in Japanese EIA system.

Steve Swain

Environment Agency

“Implications of the absence of EA requirements for civil emergency plans”

Plans and programmes that only serve civil emergencies are exempt from undergoing Strategic Environmental Assessment (SEA). Since climate change is expected to result in more frequent climatic emergencies, the use of emergency plans is expected to increase. This, in conjunction with the findings of the investigation into the Buncefield Oil Storage and Transfer Depot explosion and subsequent emergency response, which resulted in significant environmental pollution, has prompted this study of the possible environmental impacts of such plans and whether the SEA exemption results in negative environmental effects being missed or not mitigated for. Emergency plans use a range of techniques, some structural, others not, to minimise the impacts of hazards, some of which have the potential to have negative impacts on the environment. Relatively few of the plans assessed would be subject to the exemption, most not satisfying the other criteria. Those that do could potentially result in surface and groundwater pollution, waste dispersal, ecological, cultural or historical impacts, energy and carbon resource use and drainage impacts. The ability of SEA to mitigate potential effects is limited by restrictions on consultation and the flexibility required to react to emergency events but non-statutory scoping consultations, if possible, could provide benefits. Emergency management uses other mechanisms to protect the environment, such as the requirement for emergency plans to consider environmental impacts, the required involvement of environmental bodies in the decision-making process and the ability to pass emergency regulations to protect the environment.

Kenichi Tanaka

Senior Advisor (Environmental Impact Assessment), Japan International Cooperation Agency

“Reconstruction and Mass Relocation Initiatives by the Resident Association -Sakihama District, Ofunato City- (Source: NPO Iwate Community Support Center)”

The huge tsunami reached the Sakihama District at 15:15 in March 11, 2011. Approximately 50 households were washed away and 10 people were killed or went missing. The Sakihama Reconstruction Council was established to facilitate the speedy reconstruction in June 29, 2011. The council has 22 members including resident association representatives, disaster victims, the former mayor, Iwate University staff and NPO staff. As cultural properties requiring the investigation were found during exploratory excavation at the candidate site in April 2012. Once the archaeological study is complete, detailed design for the relocation site will be implemented and construction will be commenced.

Bridget Durning

Oxford Brookes University

“Furthering environmental assessment through continuing assessment into management as an aid to integrating disaster risk reduction measures into development”

Environmental impacts of developments are currently identified and mitigated from two distinct perspectives: ‘before’ and ‘after’ implementation with environmental impact assessment (EIA) and environmental management systems and processes (EMS) being the main instruments on the respective sides. Increasingly the ‘after’ process is also developing a more strategic rather than purely operational focus and linking into other operational and strategic process including corporate social responsibility, and pollution prevention and control. Whilst there are many factors which can be seen to inhibit a connection the two ‘sides’ of impact identification and mitigation, there are examples where the two are successfully connected and therefore rather than a ‘before’ and ‘after’ there is instead the continuous management of impact. This presentation will look at some of the barriers to integration between EIA and operational processes and look at case studies where there has been successful integration.

Workshop

The potential role of EA in Disaster Management

Chair: Tom Gore, Ryo Tajima

- Introduction (20 min.)

Ryo Tajima^{*}, Tom Gore^{}**

^{}National Institute for Environmental Studies, ^{**}University of Liverpool*

- Discussion 1: "What role can/should EA play in different disaster phases?" (60min.)
- Break (20min.)
- Discussion 2: "Alternative ways to EA - what other instruments/tools could we use for effective disaster management?" (60 min.)
- Plenary (20 min.)

Site Visit

Post-disaster town planning after the unprecedented earthquake and tsunami in Miyagi, Japan

● General Information about Onagawa town, Miyagi

Onagawa town is a small town on the coast of Miyagi prefecture, north-east Japan. In the tsunami of 11th March 2011, the town suffered appalling damage and loss of life. Latest estimates are that 1300 of the 10,000 population are dead or missing. The whole of the main part of Onagawa town was destroyed by a wave that reached 24m (78 feet) high.

Date	Time	Event	Note
2 Dec. (Sun.)	7:20	Meet at the Tobu Hotel Levant Tokyo Hotel (lobby)	
	7:30	Depart the hotel for Miyagi Pref.	7 hour (including break and lunch time)
	14:30	Arrive at Onagawa town - Observation on the Tsunami affected area - Q&A session on the reconstruction plan	Main Host: Mr. Toshiaki Yaginuma, Section of Reconstruction, Onagawa town
	17:30	Depart Onagawa-cho for Sendai	1.5 hour
	19:00	Arrive at the hotel in Sendai	
	19:30	Dine out	TBD
3 Dec. (Mon.)	8:30	Depart the hotel for Iwanuma city	
	9:00	Arrive at coast line near Iwanuma - Observation on the Tsunami affected area from the bus	Iwanuma city, Miyagi Prefecture
	10:00	Depart Iwanuma city for Narita	6 hour (including break and lunch time)
	16:00	Arrive at Narita Airport	21:55 flight to UK
	16:30	Depart Narita Airport for Tokyo	1 hour
	17:30	Arrive at Tokyo station	

● Accommodation

Hotel Metropolitan Sendai

1-1-1, Chuo, Aoba-ku, Sendai 980-8477

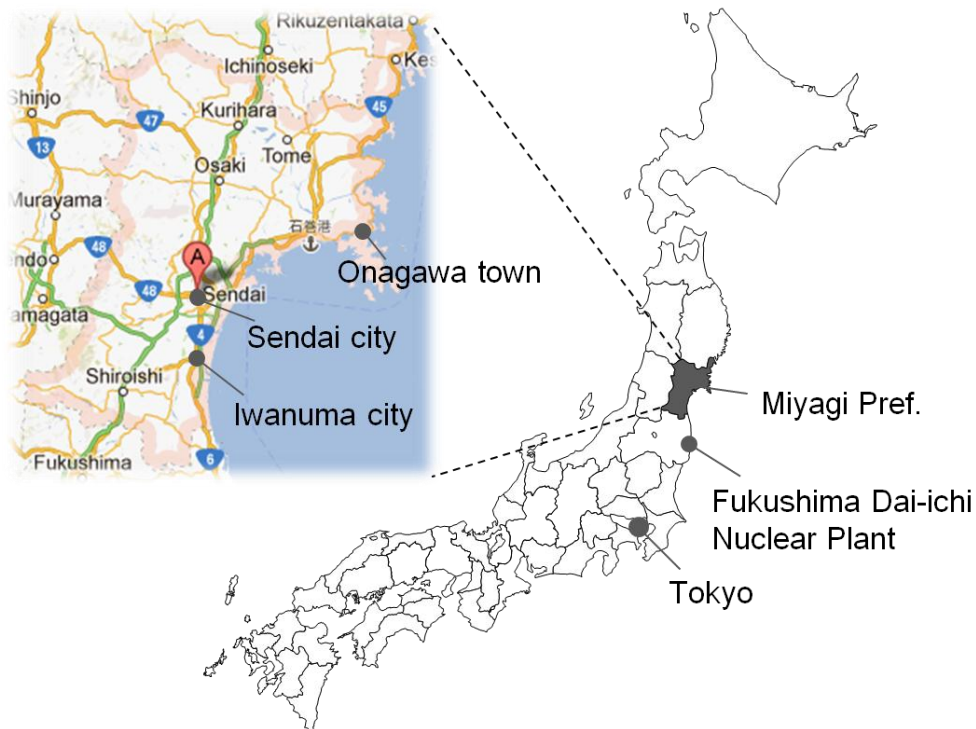
TEL: +81-(0)22-268-2525

URL: <http://www.s-metro.stbl.co.jp/english/>

Breakfast: from 6:30

Internet: available in the guest room

● Map



Venue

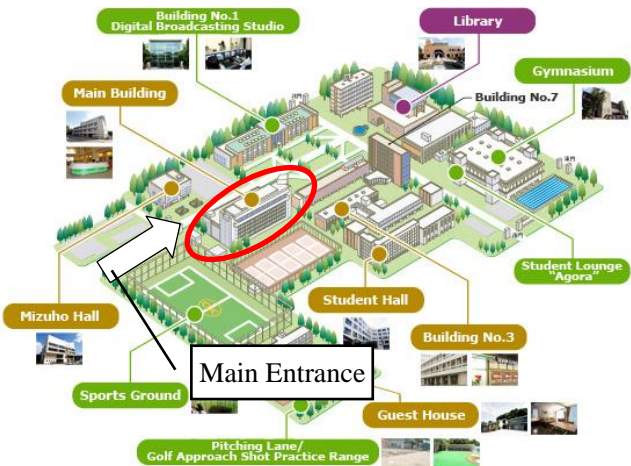
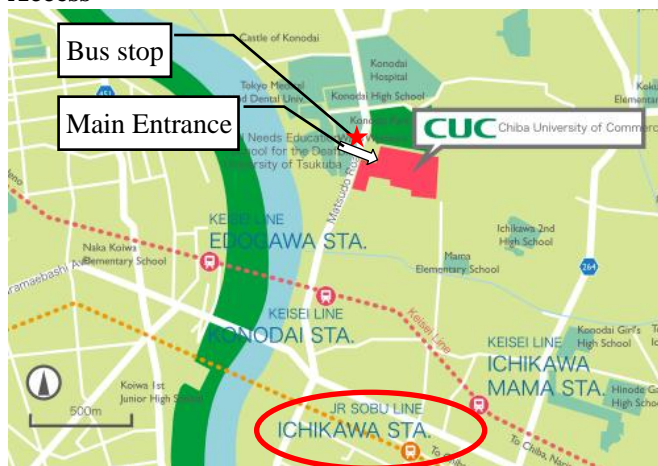
Chiba University of Commerce (CUC)

1-3-1 Konodai, Ichikawa-shi, Chiba, 272-8512

Conference room, 3rd floor, Main Building



Access



- A) Approx. 20-minute walk from JR Sobu Line Ichikawa Station (15 minutes from Kinshicho Station)
- B) Or you can take a bus (for Matsudo or Matsudo-shako) from No.1 Keisei Bus Stop in front of JR Sobu Line Ichikawa Station and get off at Wayo-joshidai-mae bus stop. CUC is about 3 minutes from the bus stop.

Hotel information

TOBU hotel Levant Tokyo

1-2-2 Kinshi, Sumida ward, Tokyo, 130-0013

TEL:03-5611-5511

FAX:03-5611-5500



Access

Approx. 3-minute walk from JR Soby Line Kinshicho Station (North Exit)



Inquiry

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◀ “The Tree of Hope”, *Ippon-matsu*,

is the only pine tree that survived the tsunami out of the 70000, which had saved people’s lives as a seawall since the Edo era. It has given hope to people as a symbol of fortitude towards recovery.