

出國報告（出國類別：其他）

赴東京參加「Symposium 2011：亞非氣候變遷減緩與調適之方案與行動」報告

服務機關：行政院經濟建設委員會

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摘要

亞太調適網絡(Asia Pacific Adaptation Network)作為全球氣候變遷的調適網絡(GAN)的一部分，希望針對氣候調適能力脆弱的人類系統、生態系統和經濟建設，透過知識和技術的動員來推動調適政策制定、規劃和做法。2011 的年度會議(Symposium 2011)於 2011 年 12 月 16~17 日舉行，會議主題為「從災後重建到堅韌社會的建立」(From Post-Disaster Reconstruction to the Creation of Resilient Societies)，主要係為回應 2011 年 3 月 11 日發生的日本東北大地震，為期兩天的研討會將討論在氣候變遷的背景下，災後重建與建立應變能力之間的連接，出席與會可吸收國際與亞太規劃與發展氣候變遷調適與災後重建經驗，並分享台灣推動氣候變遷減緩與調適行動的過程。另為連結學術研討與實務工作，於氣候變遷國際會議召開前，先前往茨城縣筑波市參訪負責國土觀測與監控的「國土地理院」、以及推動防災技術研究與規劃的「防災科學技術研究所」，相關經驗將有助於本會氣候變遷調適與國土空間規劃相關業務推動。

關鍵字：

氣候變遷
災後重建

調適
國土空間規劃

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出國報告

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壹、緣起與目的

全球氣候變遷與溫室效應的影響日益明顯，已非靠人類減少溫室氣體排放所能立即改善，如何透過社會與經濟發展模式的改變，使人類能夠適應氣候變遷所造成的影響，在極端氣候與暖化效應下持續謀求生存、生活與發展，是與減緩同等重要的調適策略，已同為當前各國政府為因應氣候變遷效應研議對策的考量重點。台灣地處亞太地區，依據 2009 年聯合國提出的報告指出，亞太地區是全球天災的「高頻率區」，全球 70%的重大天然災害發生於此，而氣候變遷的結果，將使該地區未來受天災侵襲的可能性及程度加劇。

在聯合國環境規劃署(UNEP)的協助，以及泰國、日本、瑞典及亞洲開發銀行的支持下，亞太調適網絡(Asia Pacific Adaptation Network)即於 2009 年 10 月在曼谷成立，除了作為全球氣候變遷的調適網絡(GAN)的一部分，希望針對氣候調適能力脆弱的人類系統、生態系統和經濟建設，透過知識和技術的動員來推動調適政策制定、規劃和做法，並自 2010 年起推動「亞非氣候變遷減緩與調適之方案與行動(Programs and Actions on Mitigation and Adaptation to Climate Change in Asia and Africa)」的年度會議。2011 的年度會議(Symposium 2011)於 2011 年 12 月 16~17 日舉行，會議主題為「從災後重建到堅韌社會的建立」(From Post-Disaster Reconstruction to the Creation of Resilient Societies)，主要係為回應 2011 年 3 月 11 日發生的日本東北大地震，為期兩天的研討會將討論在氣候變遷的背景下，災後重建與建立應變能力之間的連接，本會爰派員出席與會吸取國際與亞太規劃與發展氣候變遷調適與災後重建經驗，並分享台灣推動氣候變遷減緩與調適行動的過程。

另為連結學術研討與實務工作，於氣候變遷國際會議召開前，先前往茨城縣筑波市參訪負責國土觀測與監控的「國土地理院」、以及推動防災技術研究與規劃的「防災科學技術研究所」，相關經驗將有助於本會氣候變遷調適與國土空間發展規劃相關業務推動。

貳、過程

一、行程

本次行程自 100 年 12 月 14 日至 12 月 18 日，其中首尾為路程日，12 月 15 日先實地參訪茨城縣筑波市參訪負責國土觀測與監控的「國土地理院」、以及推動防災技術研究與規劃的「防災科學技術研究所」，12 月 16 日至 12 月 17 日係參加 Symposium 2011 研討會聽取簡報並與與會人士交換相關意見。詳細行程如次：

中華民國 100 年

日期	地點
12 月 14 日(三)	臺北→東京
12 月 15 日(四)	參訪國土地理院、防災科學技術研究所
12 月 16 日(五)	Symposium 2011 (慶應大學)
12 月 17 日(六)	Symposium 2011 (慶應大學)
12 月 18 日(日)	東京→臺北

二、Symposium 2011 研討會及參訪內容

(一) Symposium 2011 研討會

2011 年 3 月 11 日，日本東北由一系列的大地震、海嘯和核電事故重創，帶給了對 Tohoku 地區的難以想像的損傷，並且持續危害長達數個月的影響。我們預期極端氣候變遷事件，可能引發一系列的災害。在第一個星期，在現代社會展現對災害的脆弱之後，面對基礎設施的損毀及汽油的短缺，遠離災害中心的區域供應穩定的力量。

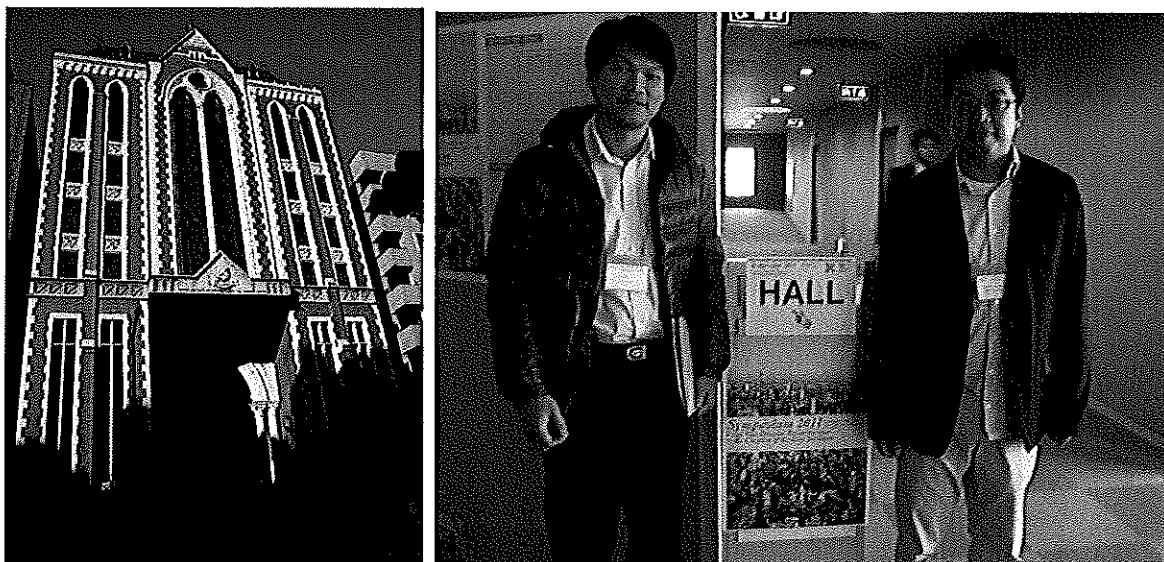
災害不僅摧殘了 Tohoku 地區，同時亦影響了依靠 Tohoku 地區提供食物、物品和服務的區域，使日常生活造成重大的衝擊。對於我們對於所生存的地球未來預測，將進入氣候變遷及災害加劇的年代。根據最近的經驗，似乎應採取更慎密行動，去面對各項警示跡象和建立一個更加韌性的社會。

本次在日本災害的等級和強度，造成重建工作史無前例的複雜，遠遠超出常規計劃之假設影響一個小範圍容量。因此似乎當一個地區、低碳社會也許減少這

種災害的衝擊，全球社會應致力重新考量發展政策，使每個國家對於災害的影響具有韌性。

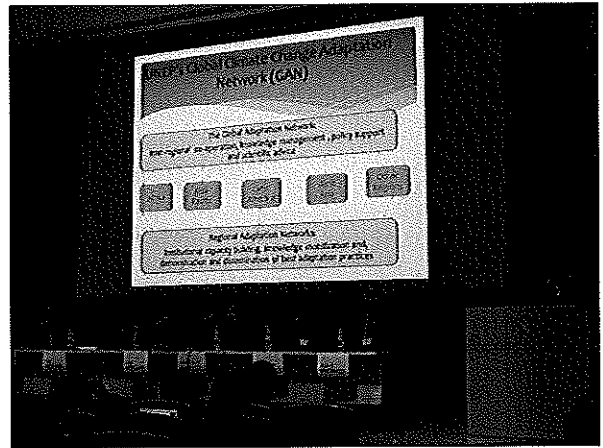
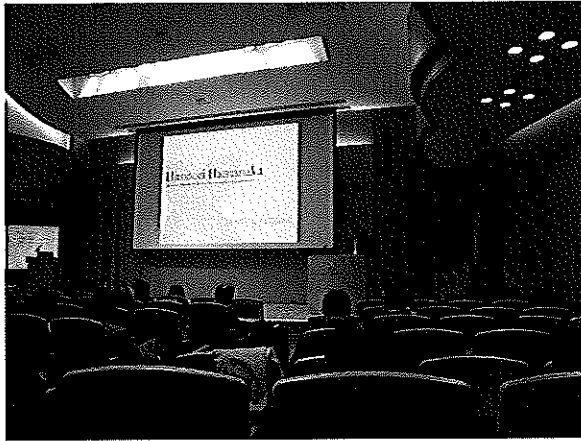
災害對人類而言，不是新的經驗，世界文化經由洪水、風暴和天旱不斷地被塑造，故已具備大量的知識，藉由長年的經驗而適應極端氣候事件。同時日本當前吸取新的教訓，如何使國家適應在災害湧現的情況及環境的根本變動。如果我們能成功地與這些變動產生協調，也許能增加一些知識庫使的面對氣候變遷時，世界各項反應運作變得更具韌性。

有鑑於此，為了吸取更多的教訓、課題及挑戰，日本 Keio 大學舉辦本次研討會「從災後復建創造社會的韌性」，特別針對本次災害對日本的影響及其對於社會全面性的議題。同時，本次研討會也是「亞非氣候變遷調適計畫與行動方案」系列年會之第二場。



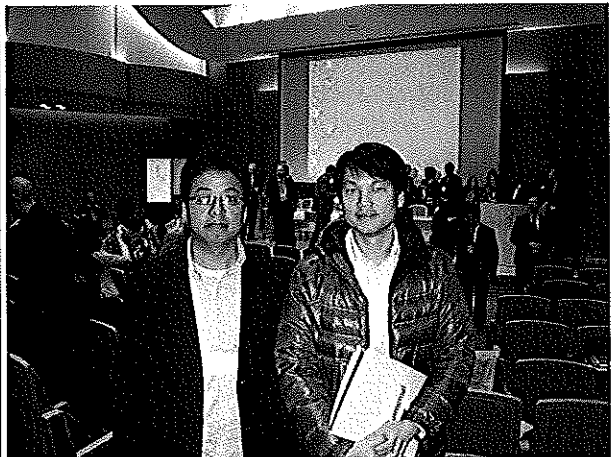
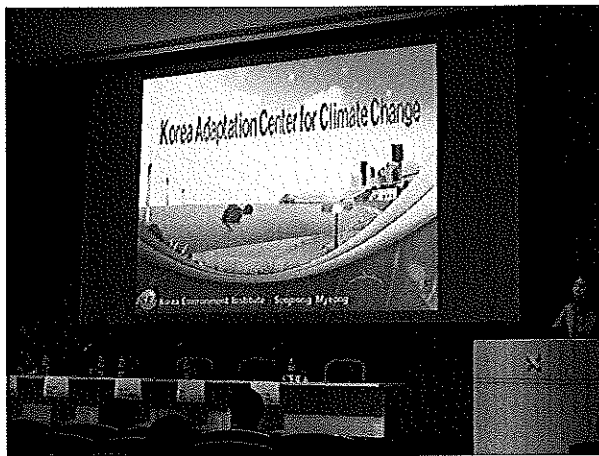
本次研討會於 2011 年 12 月 16 日至 17 日舉辦二天，共有 150 位專家學者參與，討論有關氣候變遷下之災後復建及社會調適。二天的議程分為六個子議程。

議程一為宣佈任命 Keio 大學為亞太適應網路(APAN)之東北地區聯絡處。APAN 為聯合國組織，擔任前線工作者與研究者有關氣候變遷與調適之網路資源與數據庫，並分享相關知識與經驗。本議程之簡報內容反應了 Keio 大學對於邀集相關領域研究人員及建立 APAN 要求建立網路的企圖心與理想。整體而言，本次研討會提供了有意願參與夥伴的聯絡網路。



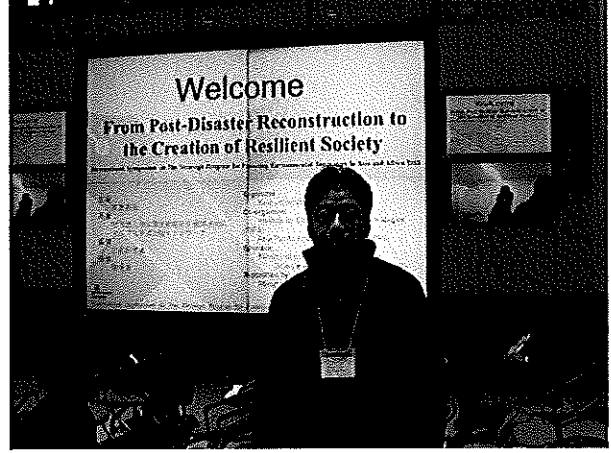
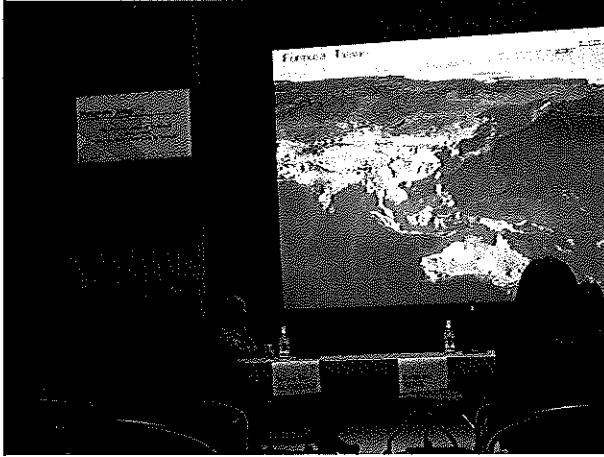
議程二討論重點為對於地震和其他自然災害不可避免地帶來的毀滅，由上而下及由下而上的處理方法，建立某一程度恢復力。最近災害已使全世界分享，包括美國、中國、印尼和日本。

議程三聚焦於災害造成巨大變化對於日本能源供應與消費之影響。此次核能事故，日本面對限電的挑戰，用電量大的機關被要求大幅限電。然而日本將採取何種發電系統及方式，仍然是個問題。此議程之簡報者提供了幾個可更新的選擇，仍有機會克服現在的困難。



議程四於討論面對巨型災害，亞洲地區的挑戰與機會，以緬甸、印尼、臺灣和蒙古為例。簡報者提供了地方社區如何應付災害及大規模的衝擊的看法。同時也提出性別影響和其他社會因素議題，對於災害應變方式，應給予重視和執行。或許本議程為災害應變之所有會議中，面對氣候變遷及其帶來的災害，充分強調地方性地區避難知識、社會影響及性別影響的重要及解決方式。

議程五為介紹 Keio 大學的學生舉辦有關於未來環境領導教育及理論結構的博覽會，並組成一個 24 小時學生工作小組，對於研討會所討論有關災害各項因素和過程做整合。他們的簡報非常的卓越，亦證明了 24 小時學生工作小組的辛勞。



本次研討會寬廣的融合多元專家、學者及學生，依據這種寬廣度，才能橫跨並整合寬廣的知識領域和能力，進而解決氣候變遷及自然災害的課題。為期二天的研討會，我們學習到災後重建相關方法，亦討論有關綠色能源扮演的角色，也聽到許多簡報者在亞太國家關於調適與風險的實務經驗，從在乾旱蒙古高原的游牧文化到南洋群島的沿海問題。每個地區的具體需要是非常獨特的，我們學到建立足夠容量的基礎設施及分享相關知識。而實務上執行各項工作，仍然需要透過政治領導人，我們一方面希望這些發展能靠各國領導人致力達成，一方面也需要透過教育扮演重要的角色。

在最後的小組討論中同樣指出我們也許應更有效率的結合相關企業及企業家，與政府和社區團體一同努力。



在研討會最後階段，亦展現了被邀請之專家、學者及來賓的專業能力與潛力，並對未來大型災害和氣候變遷指出因應方向。當氣候變遷與自然災害測式世界各國與社區時，我們期盼探索潛在的容量與發展並發展新的未來調適方式。

值得一提的，本次研討會其中一項重要議題，為討論氣候變遷對於性別的差別影響，此次簡報係以孟加拉國為例，他山之石，可以攻錯，特詳細摘錄相關內容如次：

重要議題：孟加拉的氣候變遷衝擊-從性別影響觀點

眾所皆知的，孟加拉與天然災害幾乎是同義詞。孟加拉國土面積小於英國，卻有二倍的人口，每年夏季有三分之一面積會遭受洪水之苦。低窪地區遇到雨季即淹水，三條主要河川亦泛濫。內陸地區豪雨及沿河岸水患已引起國際的關注與協助。

內地雨和河邊的洪水吸引了可觀的外國關注和援助，也促成了 1990 年代初期的洪水行動計畫(FAP)。然而，很矛盾的，這些事件造成的死亡很少超出幾千人「與颱風對比死亡人數較少」，且從未到達數萬人。

洪水是容易可看見的，並且也許看來是災害，即使他們對幾乎所有農村人口的生計是重要的。然而，又出現第二個矛盾：當沒有洪水時，大多數農村人口實際上卻認為它是災害。

洪水可能明顯導致加深貧窮，而它的缺席卻也許是壞的無形後果。於是，在孟加拉語中，「好」洪水和「壞」洪水是有區別的。一般來說，在 FAP 的計畫中，大多數的農村人口會流失是因未從洪水的預防的好處(藉由透過工程措施例如隄防和河邊制)。好洪水的好處勝過壞的缺點(Blaikie et al.1994)。

一項針對農村人口對於洪水態度的罕見抽樣調查，86%的家庭對於正常的洪水泛濫表示滿意，且並不想改變現有的情況(Leaf 1997)。

一、 氣候變遷、危險及其性別層面

主要影響孟加拉國的氣候危險為颱風及洪水，而其頻率、強度、期間和程度都似乎在增加中。夏季季風降雨量及強度逐年增加，主要河川系統泛濫區域更加廣泛，並使國家內的降雨量衝擊更為嚴重。

隨著海平面的上升，平均而言，估計一個世紀之內海岸線將撤退大約 10 公里，這將導致國家的陸地面積 18% 的損失。

這些增加的危險衝擊如何特別的影響婦女，是非常難以預測的。貧窮和弱勢之間的鏈接是明顯而關鍵的，並且不成比例地影響婦女。如果沒有在減少貧窮的重大進展，則根據她們的能力及從她們抵抗和復原的情形中可以假設，婦女將被日趨增強的危險衝擊，變得越來越受影響。

另一項重要的因素為非經濟(文化)因素，亦導致性別不平等，例如婦女常無法充分排除羞愧及被騷擾而尋求到避難處所，以及即使是寡婦或離婚的婦女，也不會不因貧窮和弱勢被排擠。這些是已經在持續發展的議題，並且議題焦點為如何解決因婦女的弱勢而降低其危險。然而，這樣的性別層面議題和解決方法尚未充分具體應用於各項防災預防準備。

一些針對 1991 年颱風和洪水災害的研究顯示，20 至 44 歲的孟加拉女性致死率為千分之 71，而男性為千分之 15(UNEP 2005)。女性因洪水引發的疾病和受傷、被毒蛇咬、被水淹死、滑倒、大樹和建築物倒塌壓死而死亡，缺乏醫療院所、營養失調、乾淨的飲用水、公共衛生場所等問題。婦女和青少年因公共衛生系統不足而遭受傷害，例如不敢使用公共廁所而忍住不上廁所，導致尿道系統感染。

從各項證據如 Schmuck(2002)、German Red Cross(1999)、Baden et al.(1994)、Rashid and Michaud(2000)、Enarson(2000)、Enarson 與 Morrow(1997) 以及 Khondker(1996)等，都建議為了降低婦女的弱勢情形，應具體地考慮性別因素。

二、 性別不平等、婦女的地位及保護的程度

在孟加拉國，弱勢與貧窮具有強烈關聯，並且婦女扮演被分配不成比例資源的貧窮人民，是被廣泛接受的。有多少婦女因弱勢、貧窮而遭受危險，並且有多少是因為「性別」特徵而未被社會分配到保護資源和生計？而這將受氣候變遷的怎麼影響？實際上，精確地分離女性弱勢和貧窮的這兩個方面，是非常困難的，因為性別在確定貧窮上扮演一個重大角色。

一項最近發布的亞洲開發銀行報告指出，95%的以女性為主體的家庭位於貧窮線以下。許多這些家庭包括離婚或寡婦，並且文化上從再結婚被勸阻的婦女。由於喪偶或離婚而單身那些人的百分之九十是婦女，結果使得弱勢導致危險及貧窮和性別關係之間產生複雜的交互作用，故使婦女比男性處於更弱勢的局面。

三、 婦女的營養狀態和應變能力

婦女惡劣的營養狀態是她們減少對危險應變能力的一個關鍵因素。在孟加拉國，所有年齡的婦女比男性的卡路里短少，並且長期能量缺乏在婦女之中是很普遍的，亦為世界之最(del Ninno et al. 2001)。

與男性相較，婦女也接受較少和較差質量的醫療保健。孟加拉國的男性比婦女壽命較長，為世界上為數不多的國家之一，並且男性人口數量上超過女性的地方(亞洲開發銀行 2001)。

四、 婦女的家庭負擔和增加的困難

一項證據顯示洪水增加婦女家庭的負擔。損失器皿和其他家庭不可或缺的用具是一項極大的困難，並且洪水也破壞婦女的一切福利由於她們與家連接經濟活動的依賴性(Khondker 1996)。在孟加拉國內的性別研究中，Baden 等發現婦女可能是較少成功的機會，並且發現她們更難在洪水之後恢復生計。

損失收成和家畜對婦女而言，是不成比例的衝擊，大多數的婦女依賴食品加工、牛和雞做為她們現金收入的來源(Baden et al.1994)。

五、 婦女具較低的自我防衛能力

貧窮是一個影響人們提供足夠自我防衛能力的關鍵性因素，並且似乎以女性為主體的家庭，在面對洪水與颱風時，更缺乏創造安全條件的能力。在颱風來襲期間，婦女因羞愧和恐懼而不願離開住家至公眾庇護所避難。當他們最終找到避難所時，也許已經太晚。

颱風避難庇護所的數量不但不足，且一個所謂多功能颱風避難庇護所竟只有一個廁所，而且在室外。每到颱風季節，避難庇護所即塞滿了人，致使女性非常不情願的前往。然而這些避難庇護所多是 1990 年代所建造，自 2000 年起，尚未有建造新的避難庇護所。

社會態度對於男性與女性的互動，制約了婦女前往颱風災害避難所(混凝土結構保護免受風和洪水)，因為前往避難所將使她們和其他男性有所互動。

然而，過去的十年，NGO 的活動使她們增加瞭解及各項警告似乎成就了不少改進。根據估計，1991 年颱風災害的受害者有 90%是婦女和孩子(Schmuck 2002)。2007 年的颱風災害，女性和男性的死亡人數比例為 5:1。

當颱風災害來臨時，女性死亡率大於男性的一項原因是因為女性不會游泳。孟加拉是一個非常保守的國家，致使女性是不允許去游泳。

六、 社會改變：一線希望？

有證據證明孟加拉國有些方面的社會改變，對於改進婦女的生活並且減少性別不平等。

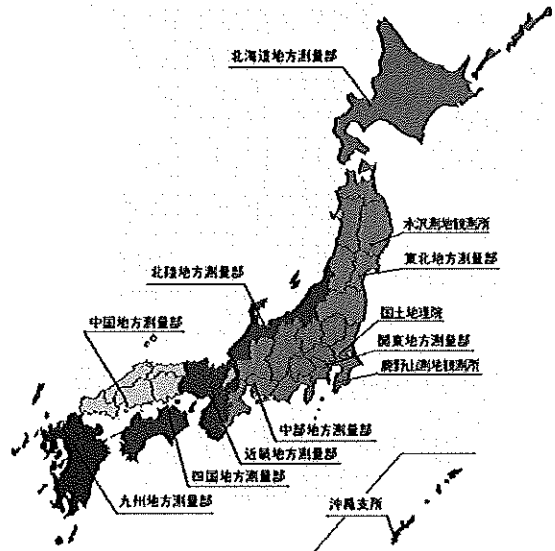
在過去 20 年期間，婦女懷孕的平均數量顯著的下降，從 1975 年到 2001 年，由 6.34 至大約 3.3(BBC 2001)。這顯著減少了婦女對照顧兒童負擔。同時，這也使她們的生活更加安全：孟加拉國的婦女分娩死亡率為世界最高。

生育率的下降對於文化顯著改變，是否在社會其他區域可能有任何衝擊，包括性別差異對於氣候危險是否具有弱勢，尚無法預言。如果改進婦女的生活及降低性別不平等持續進行，透過取得其他的主動權(如婦女的少量銀行存款及 NGOs 策劃各項活動)，則當危險增加與氣候變遷時，婦女可減少性別的弱勢。

(二)參訪

1.國土地理院

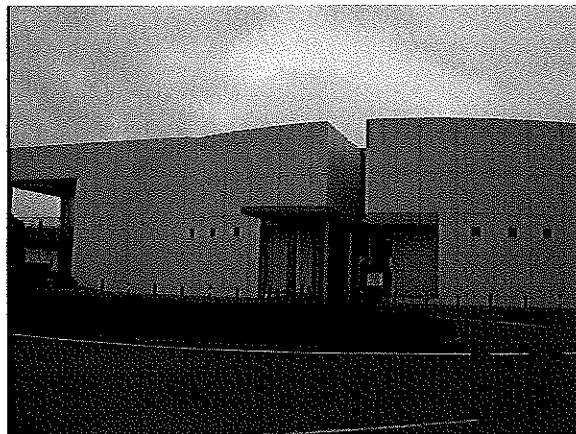
國土地理院起源於明治 2 年，民部省設置的地理司，負責戶口地圖，以後稱內務省地理局，歷經參謀本部陸地測量部、內務省地理調查所等階段，昭和 35 年改名為現下的國土地理院。昭和 54 年搬到築波研究學校；昭和 59 年國家行政組織法的改正、設省的特別機關；到今日平成 13 年的中部省廳改革成國土交通省開始，成為同省的特別機關。國土地理院透過測量基準的基準點設置，和地圖的製作，對國土的開發有很重要的作用。國土地理院共包括位於茨城縣的本院，與 12 處地方支部，包括北海道、東北、北陸、關東、中國、中部、近畿、四國、九州、沖繩等地方測量部與水澤、鹿野山測地觀測所。



(1)國土地理院的任務：

地理調查研究所是屬於土地與基礎設施、國家測量和繪圖組織的部份，於 1869 年建立。其主要任務有：

A. 關於測量的政策的企畫：作為所管測量法的行政機關、企畫製定關於以基本測量長期計畫為首的測量政策，謀求我國的測量制度的改善發達。另外關於國土各種各樣的訊息、正在致力于在電腦上再現，以實現「電子國土」的實現。



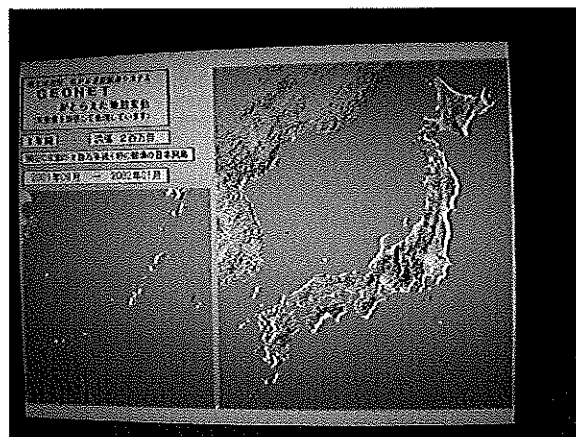
B. 國土訊息基本設施的整備以及研究開發：「地理資訊」是關於國土的基礎的訊息基本設施之一，推進關於這些整備與活用的研究開發。另外作為災害對策基本法的指定行政機關進行對防災與減災的工作。其他例如地殼變動的同時監控、地理訊息的提供。



C. 測量公共的指導以及調整：國家與地方公共團體實施精度高的測量(公共測量)，為了排除測量的重複以及確保正確，常根據測量法的指導以及調整。



D. 關於測量等等的國際活動：作為關於國土的測



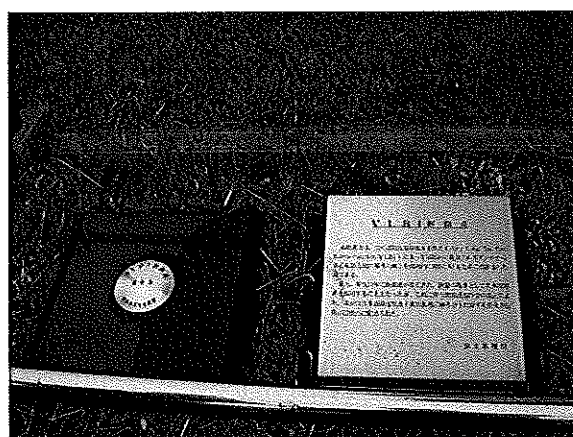
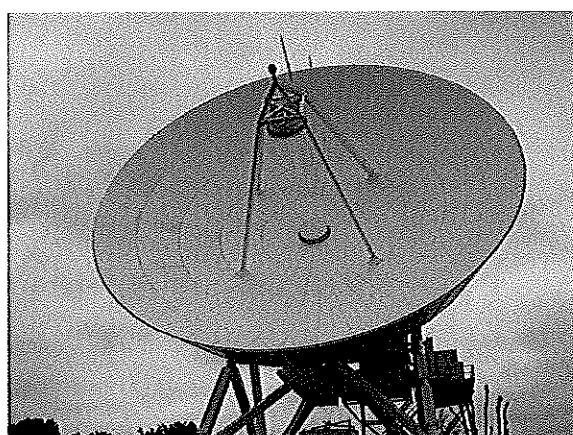
量的我國唯一的行政機關、展開在測量、地圖和地球科學等等的領域的、國際的活動了。

(2)參訪過程：

進入國土地理院本館旁的「地圖測量科學館」，最吸引人除了大型玻璃窗後的廣場景緻外，就屬大廳地板上的航空照片，以及可置放於公共空間提供觸控查詢自家立體航空照片的大型液晶螢幕，讓來訪的學生或學術團體在第一時間，對所處環境有清楚的認識，亦充分顯現國土地理院的技術水準與工作成果。

隨後於大廳旁的多媒體簡報室，觀賞國土地理院的簡介影片。而國土地理院內之重要通道上，皆清楚展示歷年重要之研究、測量、觀測與工作成果。

國土地理院依據 1992 年地球高峰會之倡議，於 1996 年成立地球地圖國際推動委員會（ISCGM），推動地球地圖（Global Mapping）之建置工作，預定於 2007 年完成第一版的全球陸域地圖。本計畫共有 149 個國家參加，資料公開國家共有 20 個，已可透過網路免費下載向量或網格資料（包括



各國之交通網、海岸線、行政界線、河川湖泊、人口集居地、標高、植生、土地覆蓋與利用等資料)。根據研究人員說明，台灣的地圖資料已由中國提供給日本，惟其 GIS 資料之精確與完整性皆明顯不足。

研究人員並帶領解說包括電子基準點、GPS 連續觀測網絡 (GEONET)、驗潮場、地殼變動觀測設施、火山活動之監測等，各類儀器設施、測站分佈與觀測成果。

接者研究人員帶領我們到室外介紹有關 VLBI (超長基線電波干涉計) 計畫，簡單來說即是利用無線電波從遙遠的太空量測我們的星球。本計畫是個跨國性的計畫，利用分佈於 17 個國家的 VLBI 測站同步觀測，其原理係以遙遠的星球為基準，運用無線電波所產生 0-0.02 秒的時間差，進行下列 4 項觀測：

- A. 板塊移動的監測，作為地震研究的基礎。
- B. 日本在世界所在位置的定位，決定日本與世界的經緯度。
- C. 地球起源的監測，地質、空間發展與時間控制的利用。
- D. 支援國際合作計畫，包括測地學與天文學的國際 VLBI 服務。

2. 防災科學技術研究所

防災科學技術研究所(防災科研)主要研究關於防災科學技術的基礎研究，以及基礎研究開發綜合進行、謀求防災科學技術的水準的提升。目標為有效地利用災害教訓來發展防災措施。防災科研有助於減輕地震災害。其他如氣象災害、土砂災害等綜合的研究開發也都在進行之中。

(1) 大型耐震實驗設施：

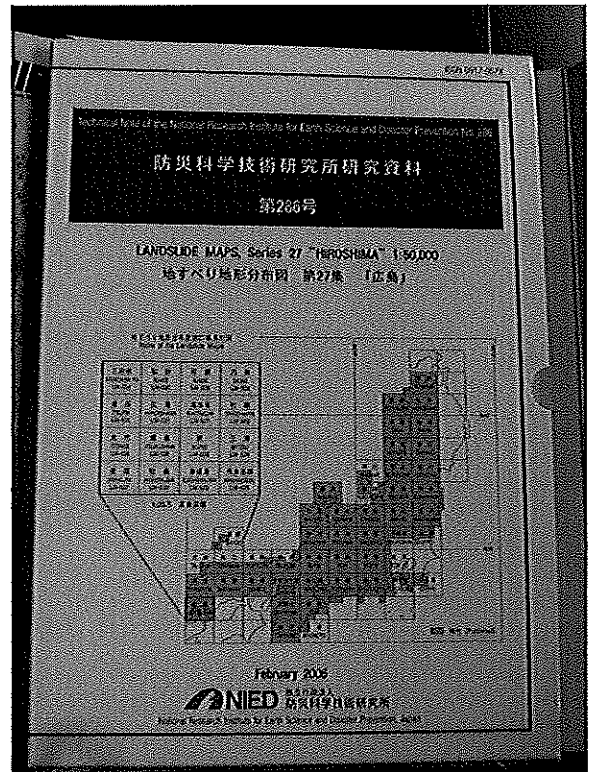
昭和 45 年 6 月在築波研究學校都市的第 1 號設施開設，有各種大型耐震實驗設施如橋樑、沈埋隧道、建築構造物、產業設施、原子能設施等等的實物或大型模型，可進行關於各種構造物等等的耐震性的實驗。經過改良之後，觀測強震而獲得的地震動記錄更能正確地表現。

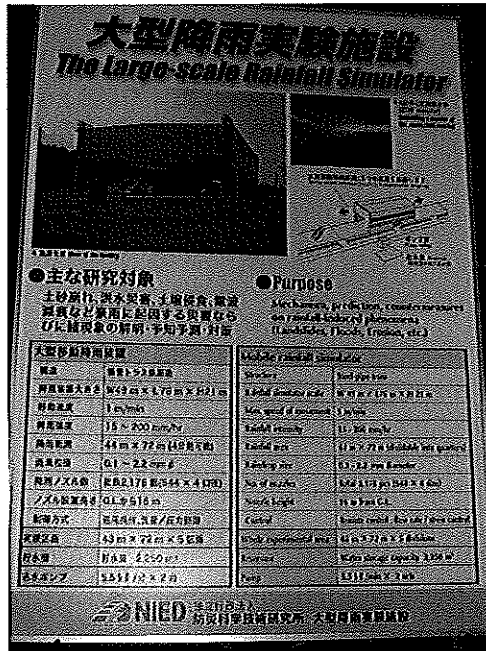
(2) 雪冰防災實驗屋脊：

雪冰防災實驗屋脊是利用實驗室水準再現雪冰圈所發生的各種各樣的現象的世界最大規模的設施。是世界唯一有接近天然雪的結晶形的下雪的裝置。在人為控制下做關於雪的研究，因此可以更有效率地做實驗，而不須要等待天氣狀況。

(3) 地表面渦流實驗設施：

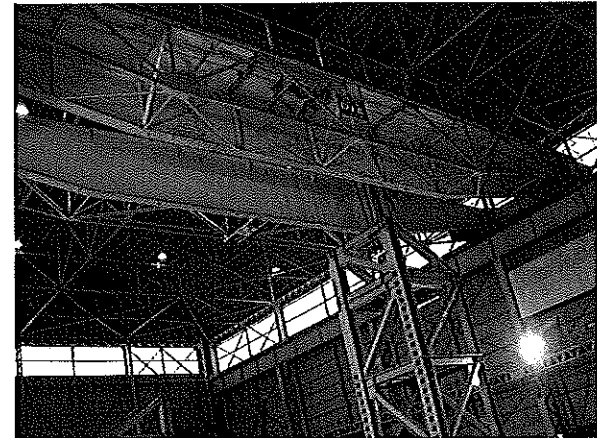
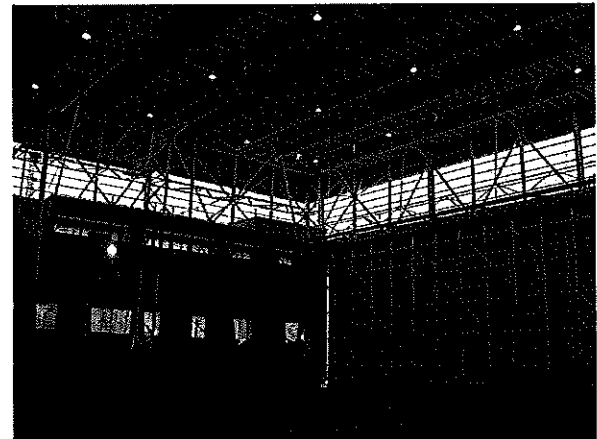
本實驗設施將地表條件(土壤





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(風速、温湿度、日射等等)利用風洞装置實驗研究地表的蒸發散現象。風洞内の風速改變溫度以及濕度。此外在風洞測定部下設置了能控制作為決定蒸發散的很大的要素的地表的土壤水分的土槽、貯水槽以及計量用台車。實驗結果能廣被用于蒸發散的模式化、枯水，乾旱情況的預測，進一步是有益于地球環境變動預測。



該中心的地滑災害研究三大重點：

- (1) 地形及地質研究以繪製土石流地圖(包含地點預測)。
- (2) 實驗研究，例如降雨實驗室。
- (3) 土石流災害個案分析。

未來該中心土石流地圖繪製之四大任務：

- (1)土石流風險評估。
- (2)每一個土石流地點之土石流運動紀錄。
- (3)不同坡度災害之整合。
- (4)研究全日本之土石流。

叁、結論與建議

氣候變遷所引發的問題，已成為跨國際、跨區域、每個人最切身的議題，惟有全民共同參與及投入因應氣候變遷的調適與減緩，方可能避免氣候變遷衝擊所可能引發的生存危機。本會自 2010 年 1 月起邀集相關部會、專家學者、NGO 及產業界代表成立「規劃推動氣候變遷調適政策綱領及行動計畫」專案小組，經過 2 年的努力並透過專家會議與區域座談會的共同研討，已研擬完成「國家氣候變遷調適政策綱領」草案，於 2 月 4 日陳報行政院審查中。同時並帶動各相關部會從無到有逐步研擬，包括災害、維生基礎設施、水資源、土地使用、海岸、能源供給及產業、農業及生物多樣性與健康等 8 個調適領域的行動方案草案。經建會預定 2012 年將整合完成各部會之調適計畫，研提我國國家調適行動計畫，並循序報核後做為後續政府推動相關工作之依據。未來將進一步過各部會及所屬機關進行調適行動方案與計畫的規劃、執行及控制，以具體落實政策綱領的氣候變遷調適目的，期能達到「建構能適應氣候變遷的永續台灣」的願景。

本次透過參加亞太調適網絡 2011 的年度會議(Symposium 2011)，及參訪負責國土觀測與監控的「國土地理院」、以及推動防災技術研究與規劃的「防災科學技術研究所」，相關經驗有助於本會推動前述氣候變遷調適政策與相關工作。茲將本次考察之相關心得與建議說明如下：

- 一、Symposium 2011除了討論日本東北大地震的災後重建外，並特別著重在面對巨型災害時亞洲地區的挑戰與機會，透過日本、緬甸、印尼、泰國及蒙古的案例，探討地方社區如何因應災害及參與調適行動，及面對氣候變遷所帶來的災害、社會及性別影響分析，這樣的經驗實有助於我國推動氣候變遷調適的參考。經建會推動調適至今，仍侷限中央部會參與的階段，無法將影響力擴及地方，難免影響調適行動的落實，因此有必要儘速從中央到地方，逐步推動地方氣候變遷調適相關工作，以持續深化氣候變遷調適之影響力。惟地方對於「調適」的定義並不清楚，調適計畫究竟應包括那些內容莫衷一是，故經建會將於 2012 年起希望透過地方氣候變遷調適示範計畫的推動，除了起帶動效果外，並希望能夠給地方政府一個較為明確的推動範例。畢竟在氣候所可能引發的災難頻傳之際，中央與地方必須立即行動，才能有效降低台灣的脆弱度，避免失控的危機臨身。
- 二、國土地理院依據 1992 年地球高峰會之倡議，於 1996 年成立地球地圖國際推動委員會（ISCGM），推動地球地圖（Global Mapping）之建置工作。本計畫共有 149 個國家參加，資料公開國家共有 20 個，根據研究人員說明，台灣的地圖資

料已由中國提供給日本，惟經初步檢視，其 GIS 資料之精確與完整性皆明顯不足，可考量透過此一機會進行交流與資訊分享，由國土資訊中心建立管道雙向分享資訊及相關作法，提升國內相關部門及資訊品質。

- 三、本次參訪過程中發現，不論是國土地理院、防災科學技術研究所或是舉辦 Symposium 2011 研討會的慶應大學研究機構，在一些議題上所採用之評估資料皆源自同一來源，例如颱風變化資料皆以氣象廳發佈之分析結果為準，氣候變遷對河川流量之影響皆以國土交通省公佈資料為準。未來我國在推動氣候變遷調適政策或研究評估時，應優先建置氣候變遷專用之整合性資料庫，除統一各衝擊因子之監測資料以外，亦應整合各影響層面之衝擊量評估結果及其他可資訊化之模式與內容。
- 四、本次參與研討會中亦獲得許多啟發，例如性別影響分析工作，不應流於表面功夫的制度化，而是應該深入分析成因和解決方法，真正使性別影響降到最低，亦可做為相關部會學習的方向。

附錄

Symposium 2011研討會議程



Symposium 2011 December 16 - 17
Keio University, Mita Campus

From Post-Disaster Reconstruction
To the Creation of Resilient Societies

Programs and Actions on Mitigation and Adaptation to Climate Change in Asia and Africa
The 2nd Annual Environmental Innovators Symposium in Tokyo



What lessons can we learn from disaster?

On March 11, 2011 northeast Japan was struck successively by a series of large earthquakes, tsunamis, and nuclear disasters. Each event brought unimaginable damage to the Tohoku region and the effects continue to be felt throughout the country more than half a year later.

Although the cause is different the gross effect of the disaster shares many of the features that we expect in the wake of extreme climatic events borne of climate change. In the first weeks after the disaster the fragility of modern society was made abundantly clear in Japan - even areas far from the center of the disaster were faced with power rationing, gasoline and food shortages and failures in the transportation infrastructure. The disaster not only devastated the Tohoku region but had a sharp impact on far-flung areas that relied on Tohoku for the food, goods, and services that make contemporary daily life possible.

The scale and intensity of the disaster in Japan has been so large that reconstruction has taken on unprecedented complexity, quickly overwhelming the capacity of conventional planning. In light of our recent experience it seems at least prudent to take the problems we now face as a warning call and work to build a more resilient society and to extend that ambition to the global community.

It is worth remembering that disaster is not new to the human experience. Cultures around the world have been, and continue to be, shaped by floods, storms and drought. In that sense there is already a body of knowledge, gathered through hard experience, that suggests ways to adapt to extreme events. At the same time Japan is currently learning new lessons as the nation adapts to emerging conditions brought on by the disasters and by radical changes in the environment. If we are able to negotiate these changes successfully we may be in a position to add to a knowledge base that will become more and more essential to the world at large.

In order to bring some of these lessons and challenges to light, Kelo University organized this symposium to look "From Post-Disaster Reconstruction to the Creation of Resilient Societies" with special emphasis on how the varied responses can lead to sustainable development. This is the second in a series of annual meetings dedicated to the broader topic of "Programs and Actions on Mitigation and Adaptation to Climate Change in Asia and Africa (PACC)". This event is sponsored by the project for Fostering Environmental Leaders in Asia and Africa, and supported by Japan Science and Technology Agency (JST). It is also organized as the inauguration of the Research Center for Climate Change Adaptation at Kelo University which begins its new roles as the northeastern Asian Sub-Regional Node of the Asia-Pacific Adaptation Network (APAN) which was initiated by United Nations Environmental Programme (UNEP). We hope this symposium will become a platform for specialists from international organizations, researchers, professionals, and students to share innovative ideas and the latest progress in post-disaster reconstruction toward the resilient societies.

The two days symposium consists of keynote speeches, general presentation, panel discussions and poster sessions. It also consists of a 24-hour student workshop. We urge you to participate in the symposium and contribute your ideas to all of the discussions.

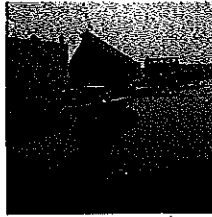
Wanglin Yan, Symposium Executive Chair, Kelo University
Hideyuki Mori, Symposium Co-chair, President, IGES



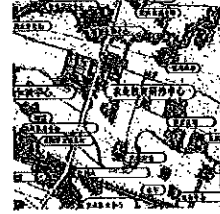
Emergency housing in Kesemurra



Measuring high temperature mudslides in Indonesia (Yasushi Kiyoki lab)



Damage in Kesemurra after tsunami



Tokyo Univ. and Keio Univ. Post-disaster re-construction design in Sichuan, China



Mihari San-Riku Community Meeting Place (Hiroko Kobayashi lab, Keio University) with Miho Mazeroux (Harvard GSD) and Yoshihiro Hiraoka (Myeong Univ)

Disaster Response

Disaster-proofing the Built Environment
(Architecture + Urban Planning)

Disaster management

Social Entrepreneurship

Social Equity

Sustainable Development

Civil Society And Local Empowerment

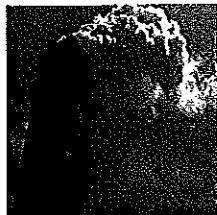
Infrastructure Design

Ecosystem Management

Energy Technology And Policy

Climate Change Adaptation/mitigation

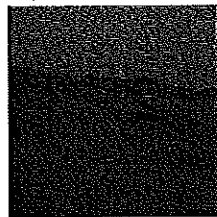
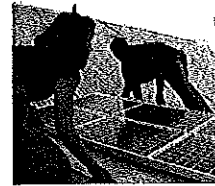
Resilience Building



Coke Dry Quenching Research Project, Qiu Yizhen (Wangjin Yan Lab)



Acadex Primary School Project - DR Congo (Hiironori Matsubara lab)



Afforestation/Reforestation CDM in Hunan China (Wangjin Yan Lab)



Mongolia Adaptation Fieldwork, Doctoral Candidate, Akhiro Oba

Agenda

December 16, 2011 - Friday

Mita Campus, North Building

- 08:30 - 09:00 **Registration**
- 09:00 - 09:40 **Opening Remarks and Keynote Speech by Dr. Young-Woo Park (Regional Director, UNEP)**
- 09:40 - 10:45 **Session 1 - Adaptation and network Building In the Asia Pacific Region (APAN)**
The event will begin with the official commencement of Kelo University as the Regional Node for APAN (Asia Pacific Adaptation Network), a network of researchers and practitioners created to exchange knowledge with the support of the United Nations Environment Programme (<http://www.apan-gan.net/>). The session will be used to present the goals and accomplishments of the participants of the network in Asia.
- 10:45 - 11:00 **Break**
- 11:00 - 12:15 **Session 1 continues**
- 12:15 - 13:15 **Lunch**
- 13:15 - 15:15 **Session 2 - Approaches For Resilience Building Through Post-Disaster Reconstruction**
*The proposed panel discussion will examine the need to balance the bottom-up requirements of local communities with the top-down demands of government and consider how it may be possible to harness both aspects to create a sustainable society in the wake of disaster. Presenters will offer insights through their experience of taking on real projects, and discuss the challenges and successes of involving community in the reconstruction effort. **Note - This session will start the introduction of a special session of the panel discussion to the symposium panel discussion on December 16 and December 17, 2011.***
- 15:15 - 15:00 (24 hrs) **The Creation of Resilient Cities (24 hour Workshop @ TOHO Building)**
- 15:15 - 16:30 **Break**
- 15:30 - 17:30 **Session 3 - Green Economics and Resilient Society in a Post-Fukushima Era**
This session will explore opportunities for building a sustainable and green economy in the wake of the Tohoku disaster. In a post-nuclear era, focus on the development of sustainable and safe energy, as well as on the creation of smart and resilient communities and cities will be essential. The discussion will address the challenges involved in transitioning from an energy system dominated by nuclear power and fossil fuels, towards a system that includes a significant expansion of safer and cleaner renewable energy sources. At a larger scale the session will be used to consider the ways such an effort can be connected to the global ambition to halve greenhouse gas emissions by 2050 and to support low-carbon development.

December 17, 2011 - Saturday

Mita Campus, G-Sec Building

- 08:30 - 09:00 **Registration**
- 09:00 - 10:15 **Session 4 - Local Communities and Resiliency In the Face of Climate Change Adaptation Programs and Actions in Asia**
This panel discusses the policy issues, technology issues, and economic issues in local and cross-border environmental risks and recovery initiatives. Regions discussed are South Asia, Southeast Asia, and China including Taiwan.
- 10:15 - 10:45 **Break** *Poster Session
- 10:45 - 12:00 **Session 4 continues**
- 12:00 - 13:00 **Lunch** *Poster Session
- 13:00 - 15:00 **Session 5 - Understanding Resiliency Through Project-Based Learning**
*What is the role of education in response to climate change?
 While disasters may require reconstruction it is not easy to incorporate the long-term goals of resiliency building when faced with the more compelling and immediate concerns of rebuilding communities. This session will therefore focus on ways to incorporate these issues into a practice-based education. Topics will include the need to educate students about the importance of social issues, the problem of balancing short term outcomes with long-term visions, and of taking on large-scale ideas with small-scale projects.*
- 15:00 - 15:30 **Break** *Poster Session
- 15:30 - 17:30 **Session 6 - Discussion for Further Collaboration.**
Session Reports and group discussion; Proposal for continuing Initiative
- 17:30 - 18:00 **Closing Remarks**
- 19:00 - 21:00 **Closing Party and Networking Event** South Building 4F

*Note: Simultaneous Translations will be provided in English and Japanese for the first day only. Otherwise the event will be conducted in English.
 For further information: <http://el.sfc.keio.ac.jp/symposium2011>*

12月16日(金)

三田キャンパス、北館

- 08:30 - 09:00 受付
- 09:00 - 09:40 開会挨拶と基調講演 (バク・ヤンウー博士、UNEP アジア太平洋地域局長)
- 09:40 - 10:45 **Session 1 - アジア太平洋地域における適応策とネットワーク構築 (APAN)**
 国連環境計画(UNEP)は2009年に気候変動適応の研究者/専門家ネットワーク(GAN)を発足し、慶應義塾大学はGANのアジア太平洋適応ネットワーク(APAN)北東アジア・サブ・リジョナル・ノード(SRN)として選ばれた。本セッションはAPAN 慶應ノードの発足式としてAPAN本部、他のSRN代表、北東アジア地域代表が集まって、気候変動適応地域拠点と国際ネットワークの形成について討論する。
- 10:45 - 11:00 休憩
- 11:00 - 12:15 *Session 1 続き*
- 12:15 - 13:15 ランチ
- 13:15 - 15:15 **Session 2 - 災害復興通じたレジリエンスづくりへの取り組み**
 災害復興においては地域社会が提示する要件と政府からの要請のバランスを取ることが重要である。本セッションは世界各地における復興の経験と東日本大震災の復興での活動を取り上げ、ボトムアップとトップダウンを結び付ける方法を考える。発表者は実際のプロジェクトを通して見識を提供し、地域社会が参加した時の課題と成功例を議論する。
 注)本セッションは、2011年12月18日・17日の二日間にわたって同時に開催される学生ワークショップの導入としても位置付けている。
- 15:15 - 15:00 (24 hrs) **レジリエント都市の創成 (24時間学生ワークショップ @ 三田東宝ビル)**
- 15:15 - 15:30 休憩
- 16:30 - 17:30 **Session 3 - 福島原発後のグリーン・エコノミーとレジリエンスある社会**
 本セッションでは東日本大震災を受けて、持続可能で環境に優しい経済を構築するための新しい方向性を探索する。ポスト核エネルギーの時代においては、持続可能で安全なエネルギーの開発や、効率的かつ柔軟な地域社会や都市づくりに焦点を当てることが不可欠となる。議論の中では、核エネルギーや化石燃料中心のエネルギーシステムからより安全でグリーンな、再生可能なエネルギーへと移行することへの課題を取り上げる。

12月17日(土)

三田キャンパス、東館 G-Sec

- 08:30 - 09:00 受付
- 09:00 - 10:15 **Session 4 - 気候変動に対するコミュニティからの行動とレジリエンスづくり**
 本パネルでは地域及び国境を越えた環境リスクと復興に向けた取り組みの中での政策、技術、そして経済問題について議論する。セッションでは南アジア、東南アジア、そして台湾を含む中国、アフリカからの発表者が集まり、それぞれの地域が抱える課題とボーダーを越えた連携によってレジリエンスを高める方法を議論する。
- 10:15 - 10:45 休憩 ◎ポスターセッション
- 10:45 - 12:00 *Session 4 続き*
- 12:00 - 13:00 ランチ ◎ポスターセッション
- 13:00 - 15:00 **Session 5 - プロジェクト実践を通じてのレジリエンス学習**
 災害は緊急な再建策を必要とする一方で、長期的な視点も欠かせない。レジリエンスある社会を創るカギは人材である。気候変動適応のために教育現場も変革が求められている。SFCはその先駆としてプロジェクトベースの学習を導入し、20年の実績を持っている。本セッションはプロジェクトベースの学習の理論と実践事例を取り上げ、環境イノベータの育成方法を議論する。
- 15:00 - 15:30 休憩 ◎ポスターセッション
- 15:30 - 17:30 **Session 6 - 今後の国際協力ネットワークに向けてのディスカッション**
 これまでの各セッションについての報告とグループディスカッションを行い、国際的協力ネットワークの構築方法を検討する。
- 17:30 - 18:00 閉会挨拶
- 19:00 - 21:00 懇親会 南校舎4階

講演は英語ですが、1日目のみ同時通訳を行います。

Participants and Schedule

DAY ONE - Friday, December 16

North Hall

Opening Remarks 09:00 - 09:40	
Wanglin Yan Symposium Executive Chair; Professor, Kelo University Director, Center for Climate Change Adaptation	
Tadashi Kasahara Vice President, Kelo University	
Hironori Hamanaka Director, Institute for Global Environmental Strategies (IGES)	
Toshihide Fukui Counsellor, Ministry of Education, Culture, Sports, Science and Technology (MEXT)	
Young-Woo Park Regional Director, The United Nations Environment Programme (UNEP)	Keynote Speech

Session 1 9:40 - 10:45		Chair: Masataka Watanabe, Professor, Kelo University Chair of the Asia Pacific Adaptation Network (APAN)
Adaptation and network Building in the Asia Pacific Region (APAN)		
Introduction to APAN and the Sub-regional Nodes		
Puja Sawhney Coordinator, Asia Pacific Adaptation Network/Institute for Global Environmental Strategies, Bangkok Regional Centre (APAN/IGES-BRC)	<i>Role Of The Asia Pacific Adaptation Network In Institution Building, Knowledge Mobilization and Demonstration and Dissemination Of Adaptation Best Practices</i>	
Sanjay Vashist Director, Climate Action Network for South Asia (CANSAs)	<i>Climate Change Adaptation Issues In South East Asia</i>	
Upali Imbulana Regional Coordinator, Global Water Partnership South Asia (GWP-South Asia)	<i>Role of GWP South Asia in Adaptation to Climate Change In the Sub-Region</i>	
Maria Celeste H. Cadiz Manager, Knowledge Management Department, Southeast Asia Regional Centre for Graduate Study and Research in Agriculture (SEARCA)	<i>Championing Food Security and Rural Poverty Alleviation In Southeast Asia</i>	
Hari Krishna Nibanupudi Action Area Team Leader, International Centre for Integrated Mountain Development (ICIMOD)	<i>Climate Change and Adaptation concerns for Disaster Risk Reduction In Hindu-Kush Himalaya region</i>	
Atabek Umlrbekov Acting Climate Change and Sustainable Energy Program Manager, Regional Environmental Center for Central Asia (CAREC)	<i>Climate Change in Central Asia and Perspective Activities of CAREC as a Sub-regional Node of APAN</i>	

Break 10:45 to 11:00	North Hall Lobby
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Session 2 Continues 11:00 to 12:15	
Adaptation Research and Action in North East Asia	
Wanglin Yan Professor, Kelo University	<i>Programs and Actions for Climate Change Mitigation and Adaptation In Kelo University</i>
Togtokh Chulunn Professor, National University of Mongolia	<i>Resilient Development of the Gobi Region In Mongolia</i>
Jian Liu Director, International Ecosystem Management Partnership, UNEP	<i>Operationalise Adaptation Networks, the Role of Ecosystem-Based Approach</i>
Soojeong Myeong Research Fellow, Korea Adaptation Center for Climate Change (KACC), Korea Environment Institute (KEI)	<i>KACC's research and Actions on Adaptation to Climate Change</i>

Lunch 12:15 to 13:15	Green Building 2F Conference Room
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Session 2 10:16 to 16:16		Chair: Christian Parker Research Associate, The University of Tokyo
Approaches to Resilience Building Through Post-disaster Reconstruction		
Hiroto Kobayashi Associate Professor, Keio University Shun Kanda Senior Lecturer, MIT	<i>Rural Design for the Revitalization of Declining Communities. Rural-rural Mutual Support: Minami-saruku and Tano in Japan</i>	
William Siembleda Professor, California Polytechnic State University Visiting Professor, Kyoto University	<i>Resiliency and Adaptation: How San Francisco and Berkeley California Protect Themselves</i>	
Xiao Peng Wan Director, Planning Department, Chengdu City Jiuli Zeng Vice-President Chengdu Institute of Planning	<i>The Reconstruction in Chengdu after the Sichuan Earthquake</i>	
Charles Yan Guo Doctorate School of Studies, Universita IUAV di Venezia, Italy	<i>Urban Reconstruction and/vs. Urban Resilience</i>	
Elizabeth Ann Maly PhD Candidate, Department of Architecture, Kobe University Assistant Researcher of International Recovery Platform (IRP)	<i>Toward People-centered Post-Disaster Housing Recovery in Tohoku; Learning from Hurricane Katrina in the U.S., the Central Java Earthquake in Indonesia, and the Hanshin-Awaji and Chuetsu Earthquakes in Japan</i>	
Shinano Hayashi Adaptation Deputy Director, IGES	<i>Guest commentator</i>	

Break 16:16 to 16:30 *10:16 to 16:30*
A healthy work-life balance (work participation is by invitation only but observers are welcome) *10:16 to 16:30*

Session 3 15:30 to 17:30		Chair: Hiroshi Kobayashi Professor, Keio University
Green Economics and Resilient Society in a Post-Fukushima Era		
Jusen Asuka Director, IGES Climate Change Group	<i>Green economy in the context of sustainable development: Japan after Fukushima, developing countries perspectives and trade dispute.</i>	
Kotusuke Kurokawa Professor, Tokyo Institute of Technology	<i>Exploiting All of the Possibilities of PV Power Generation</i>	
Yoshinobu Takegawa Senior Executive Officer, Panasonic Electric Works Co., Ltd.	<i>Smart Eco House, Smart Town</i>	
Ye Qian Professor, Beijing Normal University Deputy general secretary of the Chinese National Committee for IHDP	<i>Climate Change Risks, Low Carbon Society and Green Development</i>	
Kit Weddle Principal, Land Development International	<i>Using Social Policy or Production Policy to Assist Recovery in Tohoku</i>	
Chih-Wen Wu Professor, National Chung Hsing University, Taiwan	<i>Green Biotechnology: A study of Innovation for Sustainable Development</i>	
Yingjiu Bai Associate Professor, Tohoku University of Community Service and Science Shizuko Ota Professor Keio University Hikaru Kobayashi Professor Keio University	<i>Campus Power Saving: The Sustainable SFC Initiative</i>	

No schedule for the evening

DAY TWO - Saturday, December 17

G-seo Building 6F

Session 4 9:00 to 10:15 Chair: EVA Triasmeher, Professor, Kelo University	
Local Communities and Resiliency In the Face of Climate Change Adaptation	
Abmanyu Takdir Alamsyah Vice chairman, Professor, Research Center for Climate Change, Universitas Indonesia	<i>A Long Way to Improve Community Resilience in an Archipelago Country</i>
Yungnane Yang Dean of Political Science and Economics Taiwan National Cheng Kung University	<i>De-Stigmatization of Polluted Communities - The An-Shun Plant Case in Taiwan</i>
Salman Halder Advisor - Climate Change & Environment Embassy of the Federal Republic of Germany, Bangladesh	<i>Perceived Impacts of Climate Change in Bangladesh: Views From the Point of Gender Vulnerability</i>
Akhilro Oba Kelo University, PhD Candidate	<i>Design of Early Adaptation Actions for Climate Change in Mongolia</i>

Break 10:15 to 10:45 G-See Building 6F

Poster Session Core Time I 10:15 to 10:45 G-See Building 6F

Session 4 Continues 10:45 to 12:00	
Local Communities and Resiliency In the Face of Climate Change Adaptation	
Eyong Louis Nding Pilot Centre For Environmental Education and Development (PCED)	<i>Building Post - Disaster Rehabilitation To Flood Affected Communities Living Along The Banks of River Benue in the North of Cameroon</i>
Pakamas Thinhphanga Senior Researcher, Thailand Environment Institute	<i>Building Climate Resilience and Reducing Hazard Vulnerability</i>
Winston Set Aung Director, Asian Development Research Institute, Myanmar	<i>Recovering From the Nargis Cyclone</i>

Lunch 12:00 to 13:00 G-See Building 6F Conference room

Poster Session Core Time II 12:00 to 13:00 G-See Building 6F

Poster session Participants	
Dhwakar Dahal Agriculture Officer, Rural Reconstruction Nepal (RRN)	<i>Fighting a War Certain to Lose: Water Politics With the Vulnerable</i>
Mortaza Tavakoli University of Zabol, Iran	<i>Understanding Issues Ontology of Resiliency Through Place-based Learning</i>
James Wilkinson Kelo University School of Science for Open and Environmental Systems (Doctoral candidate)	<i>Water Supplies: Evaluating and Developing Groundwater as a Source for Potable and Non-potable Sources in Disaster Stricken Areas</i>
Dian Yan Liou Associate Professor, Department of Marketing and Logistics Management, Yu Da University	<i>Arranging Green Marketing Course for Business Undergraduates in Taiwan</i>
Mochamad Indrawan University of Indonesia	<i>Beyond the Tsunami, Will Technical Assistance be Effective? Lessons from Aceh and Nias</i>
Students Kelo University	<i>Recent Research and Projects at Kelo University</i>

Session 6 13:00 to 16:00		Chair: Yasushi Ikeda, Professor, Kelo University
Understanding Resiliency Through Project Based Learning		
Romeo B. Santos Professor, University of the Philippines President, Filipinas Monitoring and Evaluation Society	<i>How Environmental Policy, Education, and Technology Can Link Visions to Outcomes in Creating a Resilient Society</i>	
Brendan Barrett Director, United Nations University Media Center	<i>Connecting Classrooms and the Field – Experience of the UN University</i>	
Madhumita Bhattacharya Professor, University of Victoria, Canada	<i>Innovation and Flexibility Leads to Building Resiliency: Thematic and Scenario Based Approaches to Learning Environment Design</i>	
Wanglin Yan Professor, Kelo University	<i>Framework and Systems of Project Based Learning in Kelo University for Resiliency Building</i>	
Naoto Nakajima Assistant Professor, Kelo University Will Galloway Project Assistant Professor, Kelo University	<i>SFC 3.11 – A Multi-disciplinary Project-Based Response to Disaster –The Role of Environmental Education in Japan</i>	
Yasushi Kiyoki Professor, Kelo University Shuichi Kurabayashi Assistant Professor, Kelo University	<i>Future Directions of Innovative Applications of Multimedia Data-Mining Systems to Environmental Research</i>	

Break 16:00 to 16:30		Guest: Shuichi Kurabayashi
Poster Session Core Time II 16:00 to 18:00		

Session 6 16:30 to 17:30		Chair: Wanglin Yan, Professor, Kelo University, Leader of the Environmental Innovation Program, Kelo University, Director, Center for Climate Change Adaptation, Kelo University
Discussion for further collaboration		
Puja Sawhney Coordinator, APAN/IGES-BRC	<i>Report on Session 1</i>	
Christian Dimmer Research Associate, The University of Tokyo	<i>Report on Session 2</i>	
Hikaru Kobayashi Professor, Kelo University	<i>Report on Session 3</i>	
Lynn Thiesmeyer Professor, Kelo University	<i>Report on Session 4</i>	
Yasushi Ikeda Professor, Kelo University	<i>Report on Session 5</i>	
Hiroto Kobayashi Associate Professor, Kelo University Workshop Participants	<i>Report on Workshop</i>	
Final Discussion with all participants		

Closing Remarks 17:30 to 18:00		
Closing Party and Networking Event 18:00 to 21:00		MIA CAMPUS SOUTH BUILDING

Keynote Speaker



Young-Woo Park

Regional Director, The United Nations Environment Programme (UNEP)

Young-Woo Park, a national of the Republic of Korea became the Regional Director of the Regional Office for Asia and the Pacific at the United Nations Environment Programme (UNEP) in October 2008. Young-Woo brings with him his long and vast experience working in environmental management and international cooperation both with governments and the private sector. Before joining UNEP's Asia Pacific office, Young-Woo was the President of the *Business Institute of Sustainable Development* of the Korean Chamber of Commerce and Industry where he actively promoted sustainable development concepts and practices to businesses in South Korea. He was Director General of International Cooperation in the Ministry of Environment of Korea. During his time there, Young-Woo played an active role in global environmental issues such as climate change and led the Korean delegation during bilateral and multilateral negotiations.

Young-Woo was also a member of a number of environmental committees related to environment including the Presidential Commission on Sustainable Development, the Green Citizens Committee of Seoul City and the Nuclear Power Evaluation Committee. In addition, he headed the Department of Cleaner Production Technology Development and Dissemination at the Korean National Cleaner Production Center and the Industrial Environment Department at Hyundai Institute of Eco-Management. Young-Woo earned a PhD in Natural Resource and Environmental Economics from Iowa State University and a Master's Degree in Economics from Southern Illinois University.

Organizers and Session Chairs



Wanglin Yan

*Professor, Kelo University, Japan
Leader of the Environmental Innovators Program at Kelo University
Director of Center for Climate Change Adaptation*

Professor Yan graduated at Wuhan Technical University of Surveying and Mapping in 1982 with a bachelor degree of Engineering and earned his Master Degree in 1989 and Doctor Degree in 1992 at the Department of Civil Engineering, the Graduate School of Engineering, the University of Tokyo. He is a specialist in Geographic Information System and Science and contributed to the design and re-construction plan for Sichuan in China after the city was strike by a massive earthquake in 2008. His research work includes examining the degradation and conservation of the grasslands and making adaptation plans on the Tibetan Plateau and Mongolian Plateau in China.



Hideyuki Mori

President, The Institute for Global Environmental Strategies (IGES)

Mr. Hideyuki Mori is a graduate of the School of Engineering, Kyoto University. He joined IGES in 2003. Prior to joining IGES, he served as Environment Specialist at the Asian Development Bank, Senior Environmental Coordinator of the United Nations High Commissioner of Refugees, Director of the Office of Research and Information at the Global Environment Issues Division of the Environment Agency of Japan (present Ministry of the Environment) and as Portfolio Manager of the Division of GEF at the United Nations Environment Programme. He has served as the President of IGES since 2010.



Masataka Watanabe

*Professor, Kelo University, Japan
Chair of the Asia Pacific Adaption Network (APAN)*

Professor Masataka Watanabe received his Bachelor and Master degrees in Environmental Engineering from Kyoto University in 1968 and 1970, respectively and Ph.D. in Civil and Environmental Engineering from MIT in 1975. He has received several awards and prizes for his contributions to science, including the Tien Shan Prize from China in 2003. His main research interests concern ecosystem modelling, bio-geochemical cycles and science for sustainability. He contributed to UN Millennium Ecosystem Assessment as a Coordinating Lead Author, and is currently working on development of sustainable adaptation systems in China and Mongolia.



Hikaru Kobayashi

Professor, Keio University

Mr. Kobayashi joined the Ministry of the Environment (formerly the Environmental Agency) in 1973 and was instrumental in bringing the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) to Japan in 1995. He managed international negotiations for the Kyoto Protocol and helped draft the law created to promote prevention of global warming. He served in various posts, including Director-General of the Environmental Policy Bureau, before being appointed to the position of Vice Minister of the Environment in 2009. Mr. Kobayashi retired from public service and took up his present post at Keio University in April 2011. He has authored several books on Japan's experience with pollution as well as on eco-housing.



Lynn Thiesmeyer

Professor, Keio University

Dr. Lynn Thiesmeyer is Professor in the Faculty of Environment and Information Studies at Keio University. She received her Ph.D. from Princeton University in 1980 and specializes in social theory and Southeast Asian rural development. She is an Executive Director of the International YMCA of Yokohama, a board member of the European Commission's Medici Framework (Multimedia for Education, Employment through Integrated Cultural Initiatives), and a Research Advisor to the Mekong Institute, Thailand. She was a Team Leader for the 2001 Asia Pacific HIV Impact Research Tool the United Nations Development Program and the 2005 Rapporteur for the United Nations' Division for the Advancement of Women. She has organized and moderated multi-nation video-conferences on development issues for the World Bank and the United Nations. With her project partners from MCC, she opened Myanmar's first Environmental Economic Research Institute in August 2011, serving as vice chair.



Yasushi Ikeda

Professor, Keio University

Professor Ikeda graduated with a PhD from the University of Tokyo, Faculty of Engineering. After working for several years with the world-renowned architecture and planning office, Maki and Associates he established his own design firm, IKDS, in 1995 and began teaching at Keio University in 1996. His research focuses on innovation in construction technology and fabrication. Recently he has worked with his students in Tohoku to consider how architecture can be used to take on social as well as physical challenges that emerge after a disaster.



Hiroto Kobayashi

Associate Professor, Keio University

Hiroto Kobayashi is an Associate Professor of Keio University Graduate School of Media and Governance, co-director of International Keio Institute for Architecture and Urbanism – IKI, and a Visiting Associate Professor of Massachusetts Institute of Technology. He studied architecture and urban design at Kyoto University and the Harvard Graduate School of Design (GSD). He has worked with Nikken Sekkei and Norman Foster and Partners as an architect. He completed his doctoral dissertation on the traditional community form, 'Cho', and received a Doctor of Design degree from the GSD, where he served as visiting associate through 2000-2003. Kobayashi is the principal of the Tokyo-based architectural design office KMDW in a partnership with Naomi Maki. He also represents the American architectural firm, Skidmore Owings and Merrill LLP, in Japan. Recent research focuses on sustainable rural design aimed at revitalizing communities in decline. Along with MIT, Harvard and Miyagi University he has also been active in Minami-Sanriku working to revitalize communities devastated by the tsunami that struck Japan in March, 2011.

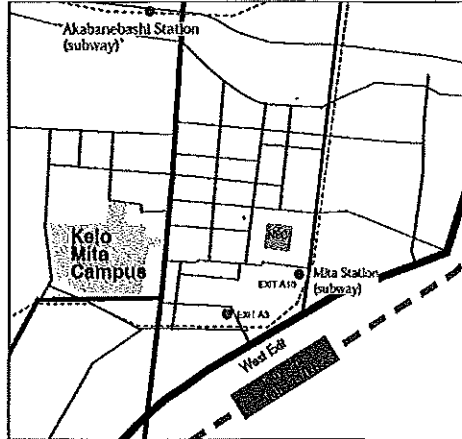


Christian Dimmer

Research Associate, The University of Tokyo

Dr. Dimmer graduated from the Interdisciplinary Spatial and Environmental Planning program at the Technical University of Kaiserslautern, Germany, and earned his PhD from the University of Tokyo. He has cooperated as an urban design consultant with architectural firms such as Arata Isozaki and Associates, and property developers like Mitsubishi Estate Inc. In 2006 he co-established the architectural practice "frontoffice.tokyo", and in 2011 was one of the founders of the Tokyo chapter of the disaster response organization, Architecture For Humanity. He teaches sustainable urbanism and planning theory at Waseda University's School of International Liberal Studies and is a research associate at the University of Tokyo.

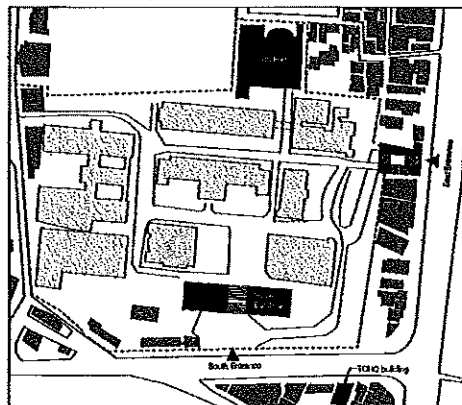
Access Map To Kelo University Mita Campus



Address
 2-15-45 Mita, Minato-ku, Tokyo, 108-8345 Japan
 Phone: +81-3-5427-1517

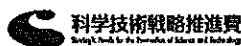
Access
 8 min. walk from Tamachi Station
 (JR Yamanote Line or JR Keihin-Tohoku Line)
 7 min. walk from Mita Station
 (Subway Asakusa Line or Subway Mita Line)
 8 min. walk from Akabanebashi Station
 (Subway Oedo Line)

Map of Kelo Mita Campus and its surroundings



Organizer: Kelo University

Co-organizers: Institute for Global Environmental Strategies (IGES), Asia Pacific Adaptation Network (APAN)



Further Information : <http://el.sfc.keio.ac.jp/symposium2011>