



UNITED NATIONS
UNIVERSITY

UNU-ISP

Institute for Sustainability and Peace



UNIVERSITY NETWORK FOR CLIMATE AND ECOSYSTEMS CHANGE ADAPTATION RESEARCH

Soo Huey Teh
Dr. Srikantha Herath

UN-CECAR Network



- Australian National University
- Bangladesh University of Engineering and Technology
- Tsinghua University
- Chinese Academy of Forestry
- Indian Institute of Technology Delhi
- Indian Institute of Technology Kharagpur
- Gadjah Mada University (UGM)
- Keio University
- Kyoto University
- The University of Tokyo
- Ibaraki University
- Waseda University
- Ritsumeikan Asia Pacific University
- Integrated Research System for Sustainability Science
- National University of Malaysia (UKM)
- Tribhuvan University
- University of Engineering and Technology Lahore (UET)
- University of the Philippines
- Yeungnam University
- Seoul National University
- Nanyang Technological University
- University of Peradeniya
- Asian Institute of Technology
- Chulalongkorn University
- Viet Nam National University

UN-CECAR's Activities

Postgraduate
Program
Development

Training
Program
Development

Research
Program
Development

Needs
Assessment

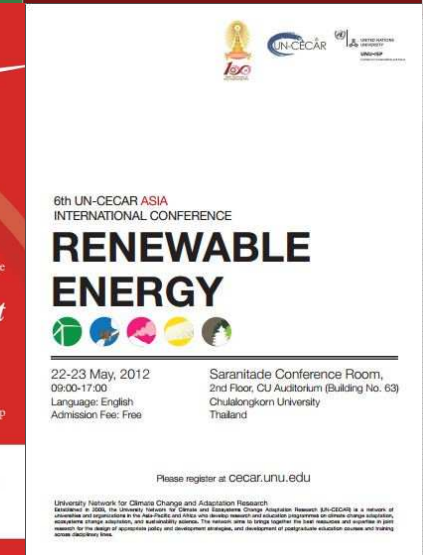
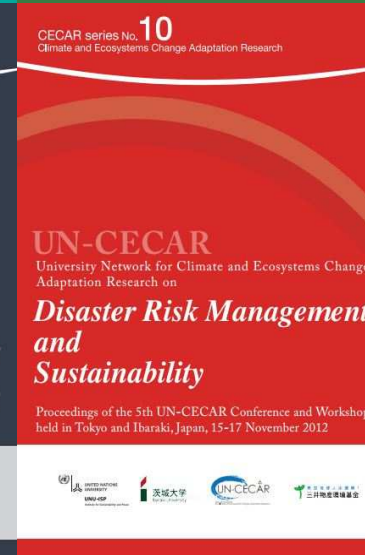
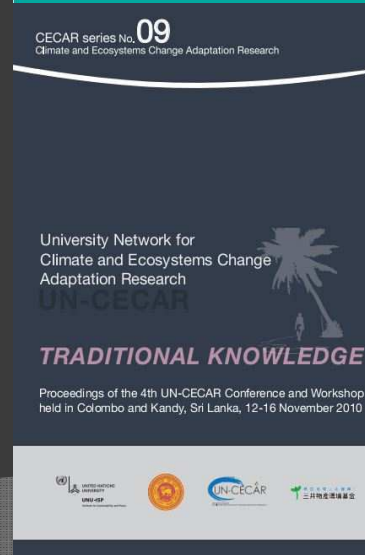
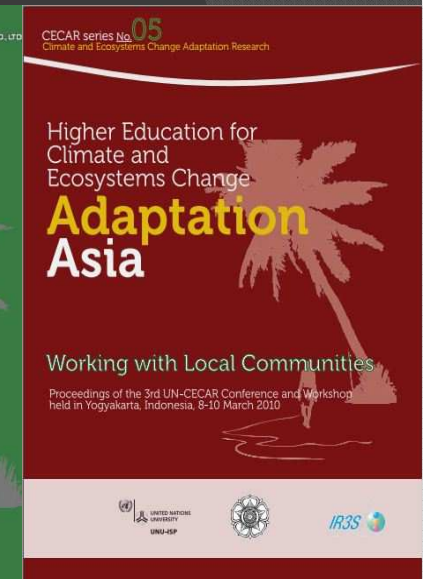
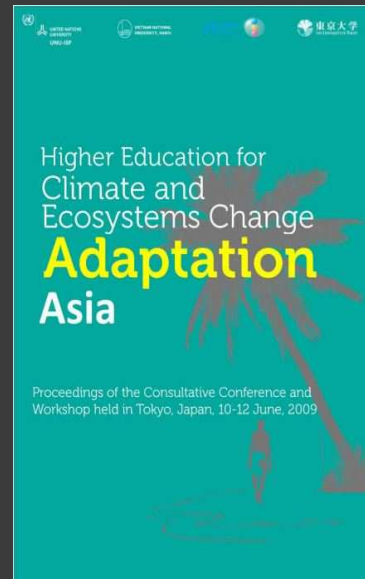
Policy Support
and Outreach

UN-CECAR

Established in 2009, the University Network for Climate and Ecosystems Change Adaptation Research (UN-CECAR) is a network of universities and organizations in the Asia-Pacific who develop research and education programmes on climate change adaptation, ecosystems change adaptation, and sustainability science. The network aims to bring together the best resources and expertise in joint research for the design of appropriate policy and development strategies, and development of postgraduate education courses and training across disciplinary lines.

UN-CECAR Conferences

- **June 2009:** Role of Higher Education in Adapting to Climate and Ecosystems Change
- **August 2009:** Higher Education for Climate and Ecosystems Change
- **March 2010:** Working with Local Communities
- **November 2010:** Traditional Knowledge
- **November 2011:** Disaster Risk Management & Sustainability
- **May 2012:** Renewable Energy



Postgraduate Courses on Building Resilience to Climate Change



University Network for Climate and Ecosystems Change Adaptation Research

Postgraduate Courses on Building Resilience to Climate Change

SPRING 2013

<http://cecar.unu.edu>

Building Resilience to Climate Change Courses

- Conducted three times before- October 2010, March 2011 and February 2012
- Next BRCC Courses on June 2013
- Intensive five week programme
- Each course is worth 2 credits
- Practical training in Remote Sensing and GIS

Course 1: Science, Impacts and Vulnerability

- Weather, Climate and Atmospheric Processes
- Climate Change
- Observed Climate Change and Impacts
- Scenarios for Future Impact Assessment
- Introduction to Complex Systems Science
- Integrated Modeling and Complex Systems Science
- Climate Projections and Uncertainty
- Dynamical and Statistical Downscaling
- Climate Change Impacts on Extreme Events
- Climate Change Impacts on Flood Magnitude
- Climate Change Impacts on Food Security

Course 2: Approaches to Adaptation

- Basic Understanding on Key Concepts
- Global and National Challenges
- Mitigation and Adaptation Practices and Resilience- Urban Areas
- Mitigation and Adaptation Practices and Resilience- Rural Areas
- Adaptive Management Planning
- Community Engagement Practices
- National Target Program to Respond to Climate Change
- Introduction to Renewable Energy
- Economics of Climate Change- Cost and Benefit Analysis
- Economic Assessment of Climate Change Impacts and Adaptation Measures
- Global and National Policies on Financing Adaptation Strategies



University Network
for Climate and Ecosystems Change Adaptation Research



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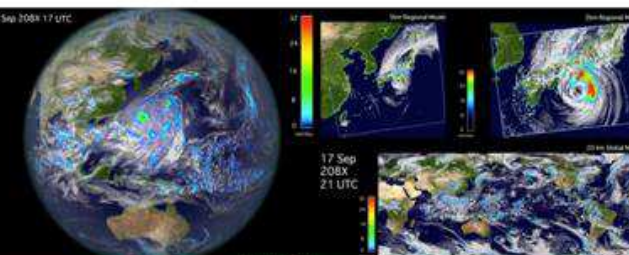

Institute for Sustainability and Peace

TRAINING PROGRAMME ON CLIMATE CHANGE DOWNSCALING APPROACHES AND APPLICATIONS



Training Programme on Climate Change Downscaling Approaches and Applications

- 10-day Training Programme
- Target applicants are postgraduates, professionals and policy makers from government or national agencies
- Developed with the support of the MOE and IGES
- Supported by Asia Pacific Network for Global Change Research (APN)
- 1st Training: 9-14 November 2011 at UNU HQ
- 2nd Training: 13-17 December 2011 at IMHEN Viet Nam
- 3rd Training: 9-20 November 2012 at AIT Thailand



University Network for Climate and Ecosystems Change Adaptation Research

Training Programme on Climate Change Downscaling Approaches and Applications

09-20 November 2012. <http://cecar.unu.edu>

The United Nations University Institute for Sustainability and Peace (UNU-ISP), Tokyo, invites applications for a training programme on Climate Change Downscaling Approaches and Applications in Water and Food Sectors, developed under the framework of the University Network for Climate and Ecosystems Change Adaptation Research (UN-CECAR). The training programme was developed with the support of the Ministry of Environment of Japan and the Institute for Global Environmental Studies (IGES). The current training sessions are organized with the support of Asia Pacific Network for Global Change Research (APN). UN-CECAR is a collaborative initiative of more than 20 leading universities across Asia. It is committed to developing postgraduate educational and research programmes on climate and ecosystems change, adaptation and sustainability science. UNU-ISP acts as the Secretariat for UN-CECAR.

The training programme will be conducted in Bangkok, Thailand and organized with the support of Asian Institute of Technology (AIT) and Chulalongkorn University. The training module consists of the following course categories: science of climate change and downscaling, dynamical and statistical downscaling methods, impacts on rice production and impacts on foods. Participants will also receive practical training in the use of Geographic Information Systems (GIS) in adaptation planning and modeling extreme climatic events.

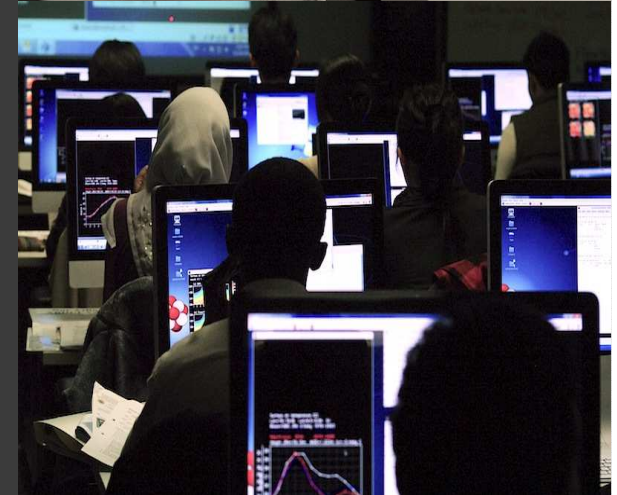
Participants who successfully complete a written report, presentation of the written report and participation in group activity will receive a certificate of completion. The programme is practically-oriented and will be taught by highly qualified and diverse team of scientists.

Target applicants:

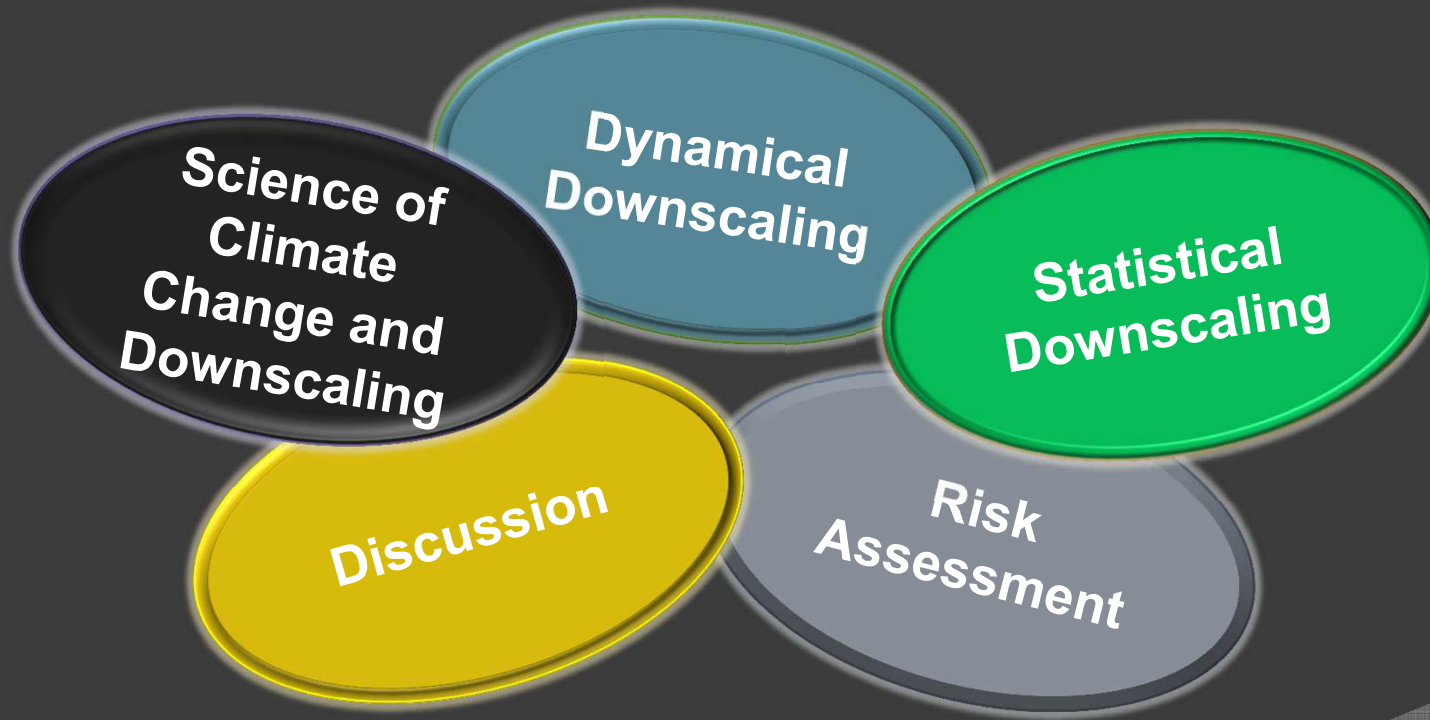
- Postgraduate, researchers, or faculty staffs from universities working on climatic change
- Professionals from government or national agencies involved in planning responses to climatic change
- National climatic change focal points

Experts from:

- Asian Institute of Technology (AIT)
- Indian Institute of Technology Delhi and Kharagpur (IIT)
- Institute of Meteorology, Hydrology and Environment Vietnam (IMHEN)
- Institute for Social and Environmental Transition (ISET)
- Meteorological Research Institute (MRI)
- Nippon Koei
- University of Nebraska Lincoln
- University of Tokyo

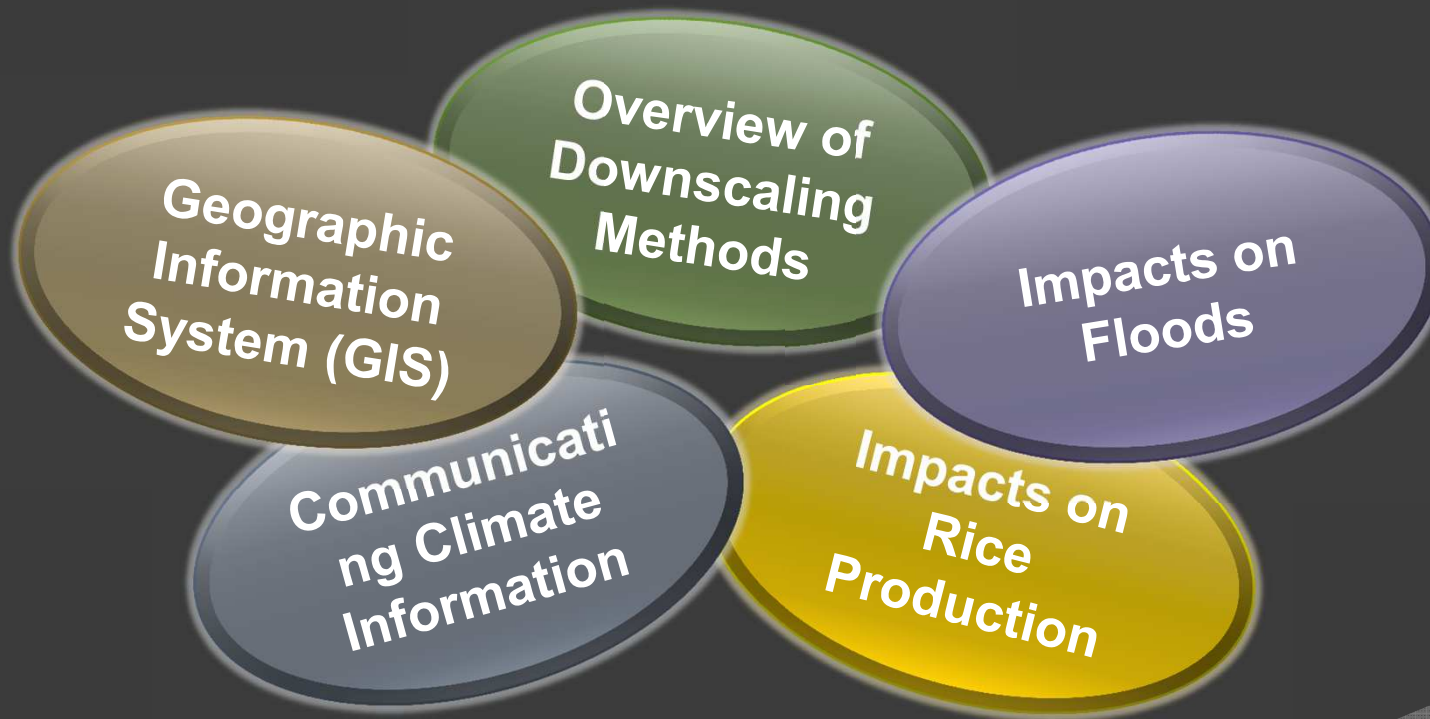


Training Programme on Climate Change Downscaling Approaches and Applications



Course 1: Downscaling Methods (5 days)

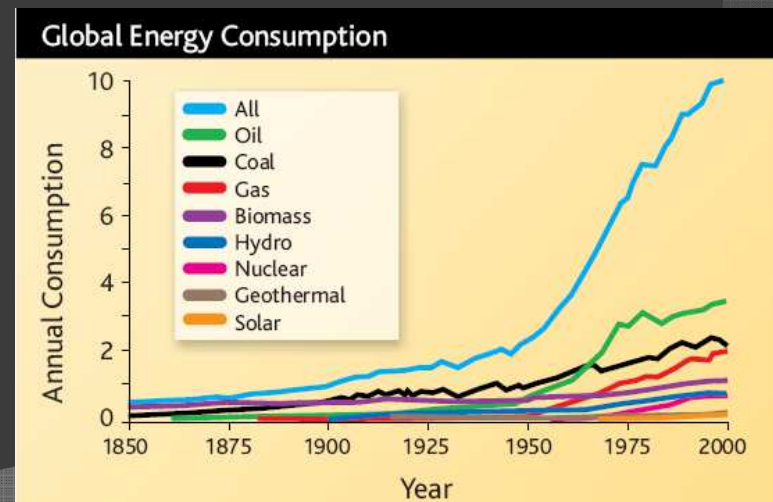
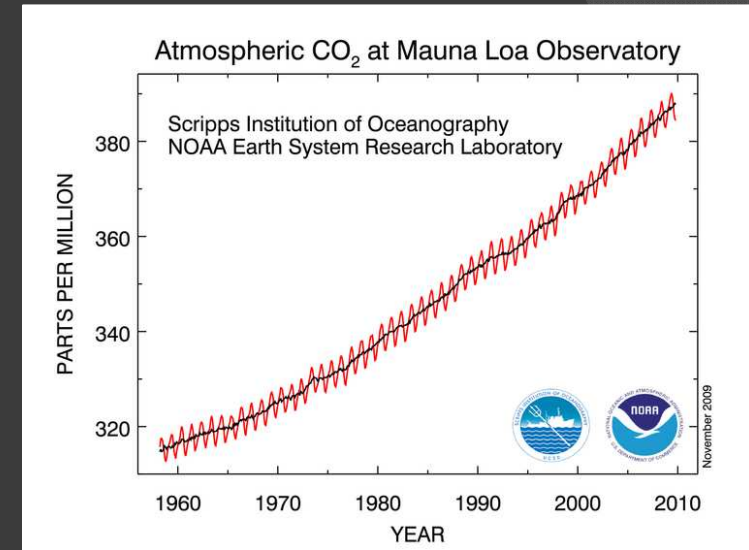
Training Programme on Climate Change Downscaling Approaches and Applications



**Course 2: Parallel Sessions on Floods and
Impacts on Rice Production (5 days)**

New Course on Renewable Energy

- ⦿ Demand for RE technical skills and academic programmes
- ⦿ The programme duration is three weeks
- ⦿ Consist of 2 courses, each equivalent to 2 credit course in the Japanese postgraduate curriculum
- ⦿ Comprising 15 lectures per course with 30 teaching hours



Renewable Energy Course 1: Science and Technology Focus



SOLAR



**GEO
THERMAL**



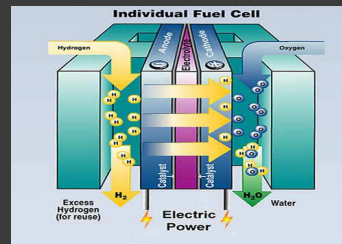
WIND



**BIO
ENERGY**



**HYDRO-
POWER**



**FUEL CELL
&
HYDROGEN**

Resource characteristics, Energy use and potential, RE Technology, components and process, Applications, Case Study, Limitations, Challenges, Ethical Issues, Future Prospects, Innovation and Development, Economic Evaluation (Cost)- focus on each technology, Efficiency improvement of the system

Renewable Energy Curriculum Framework


Economics and Policy	Science and Technology
<ol style="list-style-type: none">1. Role of Renewable Energy Towards Sustainable Development2. Energy Resources Classification, Potential and Characteristics3. Energy Demand and Supply4. Energy Security and Politics5. Energy Economics and Policies6. Renewable Energy and Environment7. Renewable Energy and Society8. RE Market and Commercialization9. Renewable Energy Project Planning and Development	<ol style="list-style-type: none">1. Introduction: Energy and Environment2. Hydropower3. Solar Energy - PV, Thermal, Sustainable Building4. Geothermal Energy5. Bioenergy - Resource and Characterization, Technology, Biogas, Biomass, Biofuel6. Wind Energy7. Marine Energy Systems8. Fuel Cell and Hydrogen Energy9. Energy Storage Systems10. Renewable Hybrid Systems

RE Courses

Collaborating with:


- Universitas Gadjah Mada, Indonesia
- Chulalongkorn University, Thailand
- Asian Institute of Technology, Thailand
- National University of Malaysia, Malaysia
- Indian Institute of Technology, India
- University of Engineering and Technology
Lahore, Pakistan
- Tribhuvan University, Nepal
- University of Philippines, Philippines

Available in February 2013



6th UN-CECAR **ASIA**
INTERNATIONAL CONFERENCE

RENEWABLE ENERGY



22-23 May, 2012 09:00-17:00 Language: English Admission Fee: Free	Saranitade Conference Room, 2nd Floor, CU Auditorium (Building No. 63) Chulalongkorn University Thailand
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Please register at cecar.unu.edu

University Network for Climate Change and Adaptation Research
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Thank You

**For more information please visit:
<http://cecar.unu.edu>**