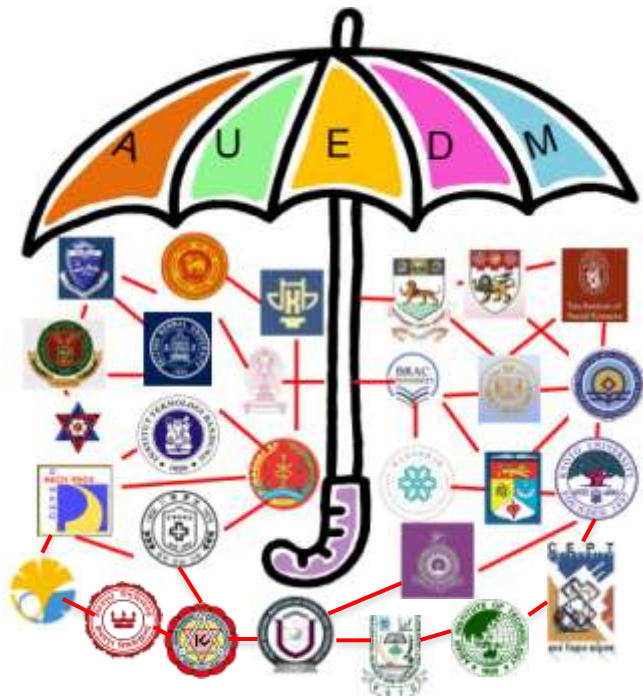


Mainstreaming Climate Change Adaptation through Higher Education: Role of Universities



Rajib Shaw

Professor, Kyoto University

President, AUEDM

Co-chair, UN ISDR STE Group for Asia

Trends of CCA and DRR

Climate Change Adaptation and Disaster Risk Reduction

- Increasing focus on working in local level: *from central/ federal to local government and community*
- Increasing focus on *multi-disciplinary, multi-stakeholder* approach
- Evolution from theory to practice: *from technology to implementation*

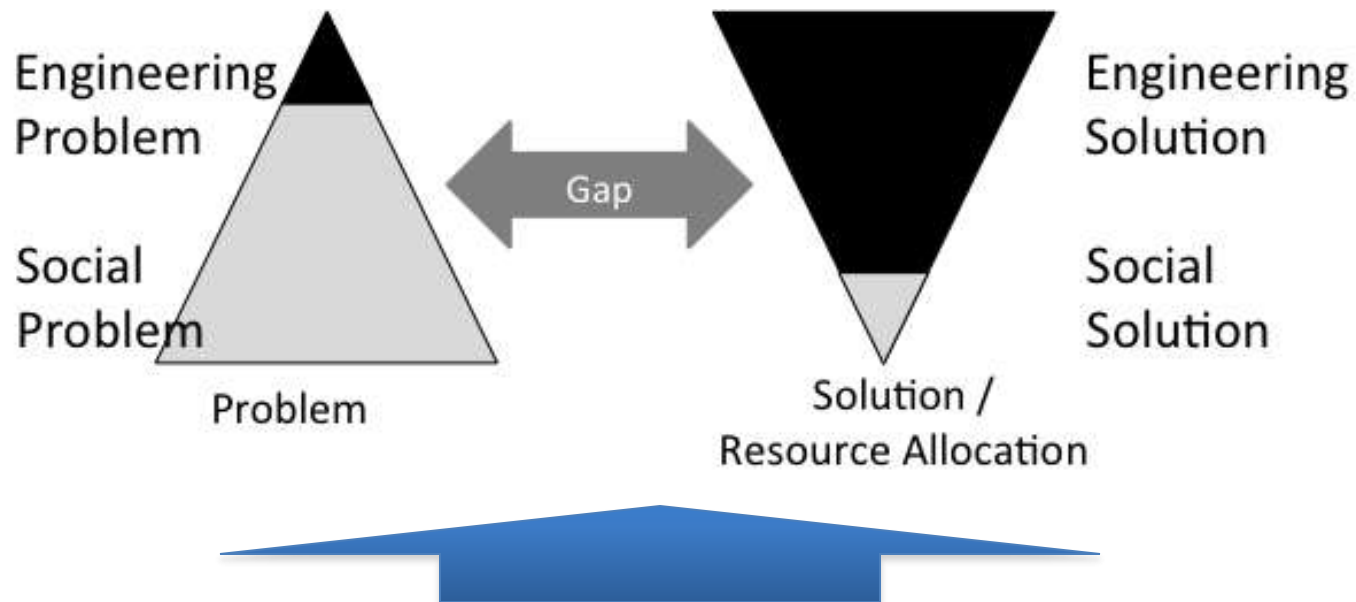
Mainstreaming: **GET** Matrix

- **G**overnance [through different sectors: water, health, agriculture]
- **E**ducation ← Focus on **higher education**
Generation of young professionals
- **T**echnology [innovations: scope of private and public enterprises]
 - **Implementation Oriented Technology** (**IOT**)
 - **Process Technology** (**PT**)
 - **Transferable Indigenous Knowledge** (**TIK**)

	Governance	Education	Technology		
Thematic Focus on CCA Research			Implementation Oriented Technology (IOT)	Process Technology (PT)	Transferable Indigenous Knowledge (TIK)
Need more focus on Process Technology					
Urban risk reduction	⊙	○	⊙	○	✕
Coastal zone management	△	○	⊙	○	○
Mountain ecosystem	△	△	○	△	○
Arid area management	○	△	○	△	⊙
Water resource management	⊙	△	⊙	✕	△
River management	○	○	⊙	△	△
Forest Management	△	△	⊙	○	△
Agriculture risk	⊙	△	⊙	✕	△
Health risk management	○	△	○	✕	△
Housing	○	✕	⊙	○	△
Economics of CCA	○	✕	○	○	△
LEGEND ⊙ High emphasis ○ Relatively less emphasis △ Neglected ✕ Not yet done					

Way Ahead

- Breaking traditional disciplinary boundaries
- Customizing social and engineering solutions



Example: Human Security Engineering

Asian University Network of Environment and Disaster Management (AUEDM):

www.auedm.net

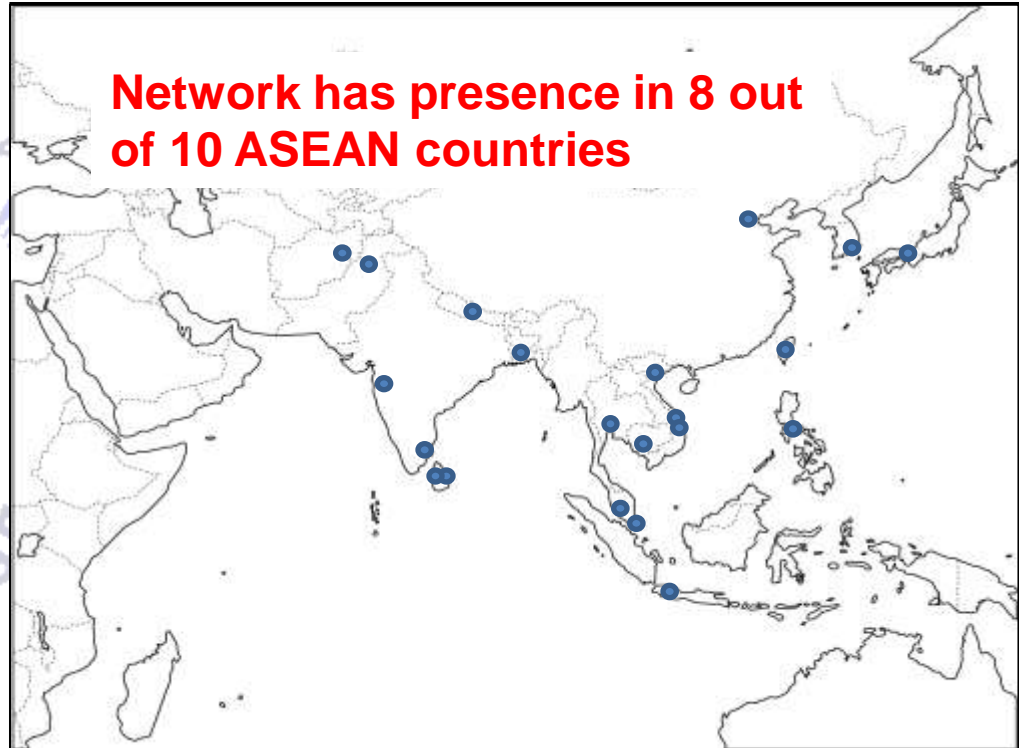


Kabul University, Afghanistan
BRAC University, Bangladesh
Patuakhali University, Bangladesh
Royal University of Phnom Penh, Cambodia
Beijing Normal University, China
CEPT University, India
Tata Institute of Social Sciences, India
University of Madras, India
Jadavpur University, India
Institute of Technology Bandung, Indonesia
Kyoto University, Japan
University of Tokyo, Japan
Tokyo Polytechnic University, Japan
Universiti Kebangsaan Malaysia (UKM), Malaysia
Tribhuvan University, Nepal
Kathmandu University, Nepal
University of Peshawar, Pakistan
University of Philippines Los Baños, Philippines
Nanyang University of Technology, Singapore
Inje University, South Korea
University of Colombo, Sri Lanka
University of Peradeniya, Sri Lanka
National Yunlin University of Science and Technology, Taiwan
Chulalongkorn University, Thailand
Asian Institute of Technology, Thailand
Danang University of Technology, Vietnam
Hanoi Architectural University (HAU), Vietnam
Hue College of Economics, Vietnam
Ulsan National Institute of Science and Technology (UNIST), Korea

Observers and /or Advisors

ADRRN, CWS-AP, Myanmar Engineering Society
GTZ Pakistan, SEEDS, United Nations University

Network has presence in 8 out of 10 ASEAN countries



**31 universities from
17 countries and region**

www.auedm.net

Asian University Network of Environment and Disaster Management (AUEDM)

Updated list as of December 2012

AUEDM Target

University Education

Research

Field Practice

Global

Teaching

Media

Experience

Traditional

Teaching

Media

Experience

Traditional

Local

Higher education in DRR
Field based Experimental

Research on Climate
Change Adaptation:
Increasing focus on
Process based
approach

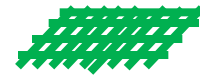
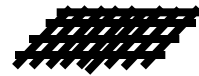
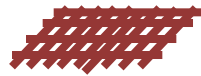
Collaboration with
NGO networks

Target of AUEDM

- ▶ To share and work together (bilaterally and/or multilaterally) in promoting environment and disaster management in higher education (focusing on, but not restricted to, post-graduate education)
- ▶ To seek possibilities of mutual collaboration on field-based action research
- ▶ To broaden the scope of education and learning in the environment and disaster management field through collaboration with other stakeholders like NGOs and local governments

Corroborations with other Network

Local Network
[city / private
sector]



ADRRN



AUEDM



Key specific needs: ASEAN

- **CCA COE University:** Identify at least **one university in each ASEAN nation** as the COE for CCA research and education
- **CCA Courses:** Establish **higher education courses** [master or diploma, based on market need] in those universities
- **CCA Faculty development:** Regional **faculty development program** in ASEAN region
- **Young professional development:** Provide specific **research grant and/or scholarship** to undertake innovative implementation/ policy research, especially targeting young professional