



WORLD BOSAI
FORUM/IDRC 2017 IN
SENDAI
Nov 27, 2017



Transdisciplinary approach (TDA) for
building societal resilience to disasters
分野・部門横断的アプローチによる災害
に強い社会作り

Kuniyoshi Takeuchi 竹内 邦良

Co-Chair, ACECC TC21 Transdisciplinary approach
(TDA) for building societal resilience to disasters

TC21 Transdisciplinary Approach for Building Societal Resilience to Disasters

Transdisciplinary Approach

Natural & Social Sciences

Academia

Humanities

Civil Society

Public sector

Private sector

Scientific Knowledge-based
Decision Making

Holistic and Transformative
Process of Building Resilient
Society

Preparedness
(Structural and non-
structural)

Feedback

Mitigation
Protection

Hazard

Response
Recovery
Rehabilitation

Co-Design, Co-Produce, Co-Deliver, and Co-Implement

Sendai Framework for Disaster Risk Reduction 2015-2030

3rd World Conference on DRR, 18 Mar 2015 (A/CONF.224/CRP.1)

Priorities for Action

- **Understanding** disaster risk.  Science
- Strengthening **governance** and institutions to manage disaster risk.  Transdisciplinary DM
- **Investing** in economic, social, cultural, and environmental **resilience**.
- Enhancing **preparedness** for effective response, and **building back better** in recovery and reconstruction.

Transdisciplinary approach for scientific DM to build resilient society



INTERNATIONAL
COUNCIL
FOR SCIENCE

futureearth
research for global sustainability

Co-design
Co-produce
Co-deliver



Knowledge Action Network (KAN)

Multi-hazards WG



Scientific- knowledge- based DM

科学的知見に
基づく意思決定

科学的判断が中心的役割
DM process where
SK is centrally &
systematically used

Not dominated by
political balance,
pressure groups,
leaders intuitions

SK includes evidence

It is a paradigm shift and needs a
societal transformation!

**Trans-
disciplinary
approach**
分野・部門間協働

all disciplines and sectors
work together for a
common objective

意思決定過程の透明性

Transparency in
decision making

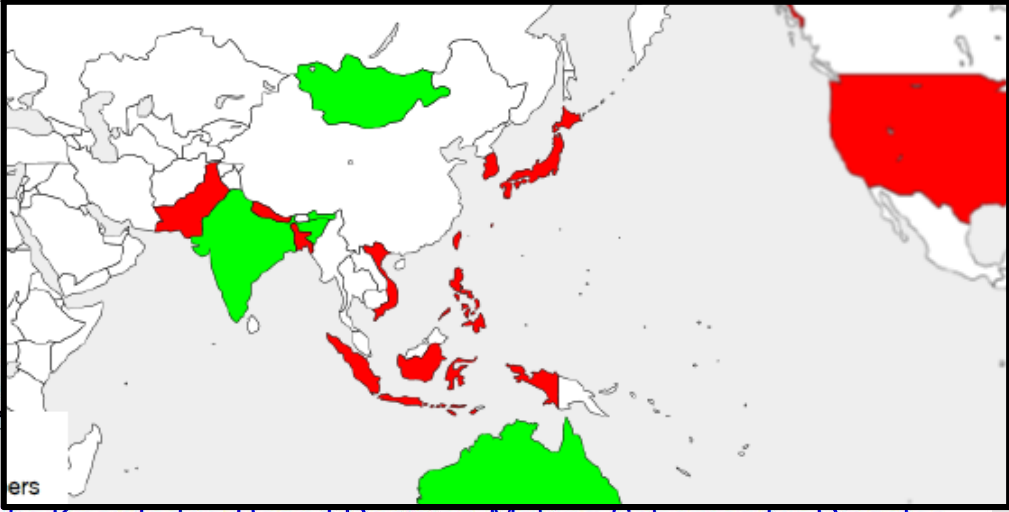
Full societal
support for
implementation

Beyond limit of each
discipl or sector for
holistic societal
transformation

ACECC TC21: Transdisciplinary Approach (TDA) for Building Societal Resilience to Disasters

- HOME
- TOR & CONCEPT NOTE
- MEMBERS
- LINKS
- CONTACT

(Last updated on August 14, 2017)



The 21st technical committee of [ACECC](#) (Asian Civil Building Societal Resilience to Disasters,” was established in Gunsan, Korea, to support states to further develop their risk reduction (DRR) through TDA.

[Second International Symposium: Scientific Knowledge-Based Decision-Making Schemes for Disaster Risk Reduction, Monday, April 24, 2017, 13:30 – 18:00, Kathmandu, Nepal](#)

[Download symposium documents in PDF \(About 35MB\)](#)

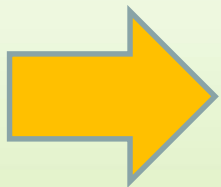
Since Oct 2015



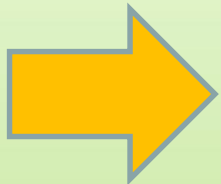
<http://www.acecc-world.org/TC21/index.htm>

Objective of TC21

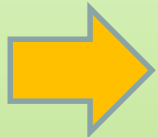
- TC21 aims to *promote* the *transdisciplinary approach* for *scientific knowledge based decision making* for building societal resilience to disasters *at national and local levels*.



Case studies of TDA practices in PH, NP, IN, VN, JP, ...



Compiling case studies for **CECAR8** in 2019
ACECC General Assembly in Tokyo



- **Comparative analyses**
- **Policy proposal** in each nation

Today's aim

- Share the experiences of TC21 and related activities.
- Discuss about how to promote TDA for SK-DM in the world.

PROGRAM

10:45-55

竹内 邦良

TC21 **Introduction** Kuniyoshi Takeuchi, TC21 Co-Chair; U Yamanashi

10:55-11:05

荒木田 勝

TC21 **Activities** Masaru Arakida, TC21 M; ADRC

11:05-15

倉岡 千郎

TDA **Keywords in Philippines** Senro Kuraoka, TC21 M; Nippon Koei

11:15-25

米田 雅子

TDA by **JANET-DR** Masako Yoneda, Director of JANET-DR; Keio U

11:25-35

TDA in **Indonesia** Harkunti Rahayu, TC21 M; Bandon Inst Tech

11:35-45

TDA in **Taiwan** Ting-Chi Tsao, TC21 M; Sinotech Eng Consults

11:45-55

泉 貴子

TC21 for **Sendai Framework** Takako Izumi, TC21 M, U Tohoku

11:55-12:15

Discussion with the floor and Conclusions

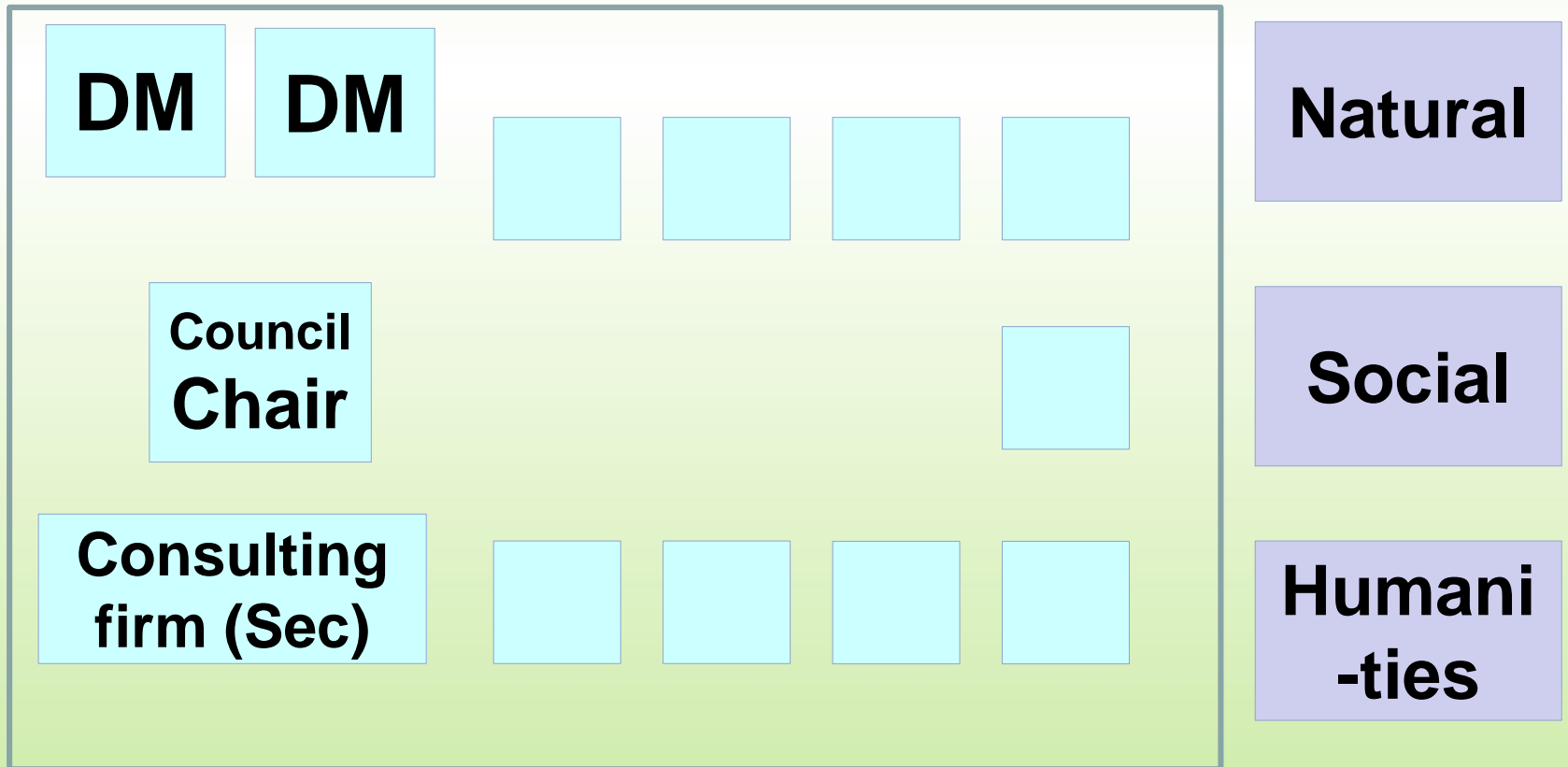
Discussion

How to promote Transdisciplinary Approach (TDA) for Scientific Knowledge based Decision Making for building societal resilience in the world?

Action

Legal framework for DM by TDA

- national to local levels



Public

Private

Academic

Civil

Action

Transdisciplinary approach
to stop creating new risk

Compulsory

RISK Impact Assessment (RIA)

for any developmental approvals

similar to

Environmental Impact Assessment
(EIA)

Barriers for TDA for SK-DM

- From local level to national level
- Legal framework
- Member selection process ??
- Evaluation standard to engage in practice in academia especially for young scientists
- Knowledge flow (infrastructure) to insure right knowledge to right people.
- Legal responsibility of scientists