

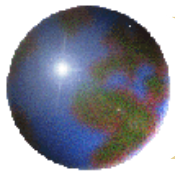
The academic activities of universities and institutions related to SFDRR

World BOSAI Forum

Sendai, Japan

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The University of Tokyo



1. Introduction

SFDRR adopted in 2015

with 4 priorities and 7 Global Targets

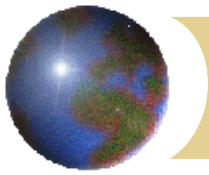
incorporated in SDGs

Voluminous research and education for Disaster
Risk Reduction

but

NOT clearly understood

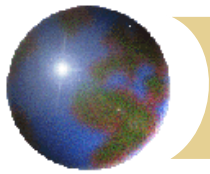
AIM: to clarify present situation and gaps



2. *Study method*

- 1) Task members: Tohoku University (IRIDeS), JICA, and Oriental Consultant Global (OCG)
- 2) WEB retrieval using the key words
SFDRR, University, Institution, Education course
pick 111 literatures (Articles, working papers, reports, etc.)
Literature publishing time: basically from 2015
- 3) Classified: Priorities, Global Targets, Organizations, Countries, Themes
- 4) Tagged according to members' judgement
- 5) Limitation:
Literature selection, classification, abstraction are depending on the Task members' interpretation, judgement and views

not necessary reflect official ones of Tohoku University, JICA and OCG



3. *Priorities*

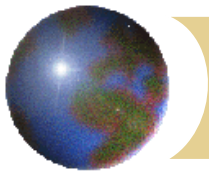
Priority	P1	P2	P3	P4
Number	82	82	46	47

P1: Understanding Risk and

P2: Governance

P3: Investment and P4 Build Back Better (BBB)
related researches count for half of P1 and P2

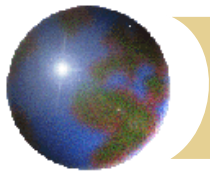
Financial organizations like WB, ADB: P3
Investment related literature published



4. *Global targets*

Global Target	a)	b)	c)	d)	e)	f)	g)
Number	20	22	20	25	14	16	21

- ✚ More literatures
 - d) reduce infrastructure loss
 - b) reduce the number of the affected people
 - g) increase access to early warning system and
 - a) reduce mortality
 - c) reduce economic loss
- less literatures
 - e) national DRR strategy
 - f) international cooperation



5.1 Region and/or Countries

✦ From Japan and the U.K.

1) Japan: Tohoku University (IRIDeS) (Many researches of diversified, sectors and interdisciplinary)

Kyoto University (Hard Engineering and Science)

Nagoya University, Kyushu University, Keio University, GRIPS

2) U.K. : Education, Health and data related researches

University college of London (Many literatures published)

University of Reading, London South Bank University,

Bristol University, Bournemouth University, Oxford University

3) Other countries

United States: Columbia University (private sector), Colorado University, (health and vulnerable), University of Pennsylvania (legal) ,

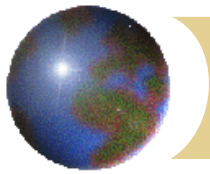
University of Florida

Australia: University of Melbourne, University of Sydney, Flinders

University, RMIT(Royal Melbourne Institute of

Technology, Monash University, Western Sydney University

(Health, Education)



5.2 Region and/or Countries

Europe

Netherlands: University of Groningen (Education, legal)

Switzerland: University of Bern (mountain area and disaster)

Sweden: Lund University (Sweden's DRR national strategy) and
Data (Indicator), University of Gothenburg (Practice
and Governance) with University of Copenhagen

Italy: Roma Tre University (Education, World historic heritage)

(8) From developing countries

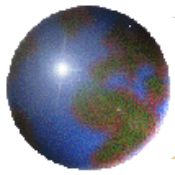
India: University of Delhi (Education, Vulnerable)

Himachal Pradesh University, National University
of Singapore and University of Sri Jawardenepur (Health and
Vulnerable)

Nepal: Tribhuvan University

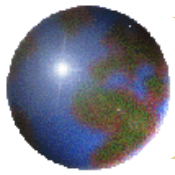
Micro insurance topic from Bangladesh

Universities of Uganda, Nigeria



5.3. *Organizations and Associations*

- WB, ADB: Investment and Governance
- International red cross: Legal and DRR, Vulnerable
- Japan: JICA Research Institute (Infrastructure, investment, governance)
- JICA's Training Courses with ICHARM
- UK Think tank UK/ ODI: Finance, contribution to SFDRR discussion
- Public health England: interested in SFDRR: 5 literatures
- UKADR (UK Alliance for Disaster Reduction)
- UN: UNSRID (Global Target and monitoring guide book with FAO)
- Association of Caribbean State (Regional Disaster)
- Asia Science and Technology Academic Advisory Group (ASTAAG): Science and technology contribute to SFDRR



6.1 Themes (Sector)

	Sector							
	Health	Education	Governance General	Governance Law	Infra	Agri	Multi Sector	
Number	14	12	8	5	13	2	6	

1) Governance sector dominates

in governance sector, legislation is highlighted in five literatures

2) health

Health sector,

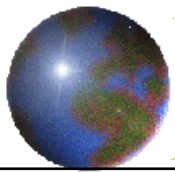
Public Health England, IRIDeS of Tohoku University and

Australian universities seems to have significant interest

3) Infrastructure

4 Education

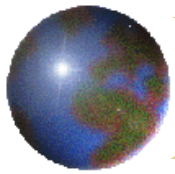
5) In addition, an importance of multi-sectoral approach



6.2 Themes (Cross Cutting Issues)

	Cross Cutting							
	Collabo	Data	Vulner.	SDGs	Practice	Holistic	EWS	Innovation
Number	22	25	16	13	12	11	5	4

- 1) Data comparatively dominates: indicator, terminology, monitoring, evidence base, database, data collection.
- 2) Collaboration stands out: collaboration between and among researchers of several sectors, politicians, practitioner (implementation agency) private sector and civil community in addition to collaboration among each actor.
- 3) SDGs and/or sustainable development: 13 literatures
- 4) An importance of hard and soft technology combination also stressed in two literatures.
- 5) An importance of holistic approach (including integrated, comprehensive approach) is stressed.



6.3 Themes (*Disaster Category*)

	Disaster category							
	Flood/ Earth quake	Water related	Storm	Tsunami	Nuclear	Land Slide	Mountain area	
Number	5	6	2	3	3	3	2	2

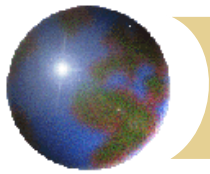
Less research focuses on specific disaster is found.

Earthquake related research

Next is flood.

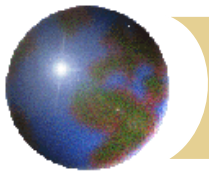
Tsunami, Storm and nuclear related disaster also are found.

Nuclear accident in three literatures



7. *Education Courses*

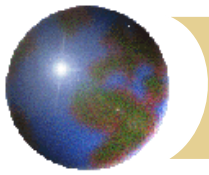
- 1) Tohoku University (Multi hazards program)
with Association of Pacific Rim Universities
Nagoya University with Tohoku University
GRIPS+JICA: Master Course program
- 2) York University (Canada): take DRR into Business
school curriculum
- 3) Lincoln University: lessons form Canterbury Earthquake,
with University of Canterbury
- 4) University of Newcastle: Master program
- 5) Not directly related to SFDRR but interesting Dr. program
by Hyogo University and other 4 universities (Nursing)
- 6) University of Copenhagen (Master program)
- 7) UNESCO and Delft University: discussion necessary
research for SFDRR



8. *Consideration*

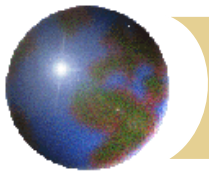
Role of University and research institute

1. **Advance research**; providing new analysis, tool and concept to understand better
2. **Education**; giving the knowledge and thinking and implementation process to resolve problems
3. **Contribution for society**; encouraging collaborations for action oriented activity with multi-stake holder



Basic concept for DRR in academic

- ✿ Establish “practical” disaster management studies
- ✿ Identify and theorize disaster-related phenomenon **in each stage of disaster cycle; 1.preparedness, 2.emergency response, 3.recovery and 4.reconstruction/mitigation**
- ✿ Establish an area of disaster management study that supports building societies more resilient to disasters
- ✿ Internationally-driven research/educational activities



9. *Summary*

1) General discussion

Specific discussion on needs by identifying discussion among policy makers, decision makers, practitioners, researchers, and other stakeholders

2) Global targets a), b), c), d), g) comparatively fit to research theme. However, more needs e) national strategy, f) Inter. Coop.

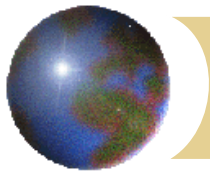
3) Data collection, indicators: Various studies stress importance for assessing disaster damage and risks, monitoring for SFDRR

4) Less country/ area specific disaster research: for example
earthquake Nepal, Japan, NZ
Flood of Brazil

5) Less literature from research institutions of developing countries

6) not discussed sufficiently in relations and impacts among disasters from SFDRR perspective

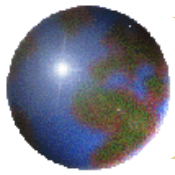
Relation among flood, water related disaster, typhoon
and landslide



9. *Summary*

New areas (Interesting)

- 1) Peace building use DRR lens
- 2) Micro insurance, budget system, law/regulation
- 3) Research related to Vulnerable people
- 4) Private sector' role, business school curriculum
- 5) Historical heritage and DRR (Italy and Malta)
- 6) Nuclear related disaster: in addition to Japan, Nepal and ASEAN countries



9. *Summary (necessary future works)*

1) Needs assessment

Research/education society

Policy making society

Implementation (practice) society

by Priorities, Global targets

by Region/country

2) Area specific research

3) Developing countries' research and education

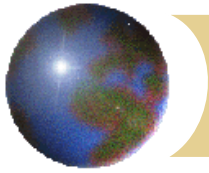
need more international cooperation

4) Relations and impacts between disasters and SFDRR,

Priorities and Global targets

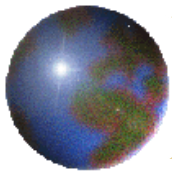
5) Monitoring scheme and indicators

6) How SFDRR contributes to SDGs



Thank you

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Disaster Management Cycle in Four Phases

- Activities to develop knowledge and capacities by governments, professional response and recovery organizations, communities and individuals to effectively manage emergencies and achieve transitions from response to sustained recovery : Disaster preparedness organization, Emergency response plans, Exercises, Training, and Education, Warning systems, Disaster Str and Risk Assessment

Preparedness

Response

- Activities during a disaster: Monitoring, Early warning & evacuation, Search and rescue, Medical and public health care physically and mentally, Provide shelters, Distribution of relief items

Mitigation

- Activities that reduce the effects of disasters: Investment of Infrastructure, Building codes and zoning, increase health resilience, Retrofitting, Land use planning, Public awareness, BCP & BCM, Archive

- Crisis management, Disaster medicine, Public health, Activities following a disaster: Recovery of infrastructure, Temporary housing, reconstruction of buildings and schools, Revival of local economy