JICA as Donor’s Expectation to Science & Technology Sector

TAKEYA Kimio  takeya.kimio@jica.go.jp
Distinguished Technical Advisor to the President, JICA
/Visiting Professor, Tohoku University, IRIDeS
International Research Institute of Disaster Science
/Member of UNFCCC Executive Committee of W.I.M. Loss & Damage

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Sendai Framework for Disaster Risk Reduction 2015 - 2030

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International cooperation and global partnership
Logic of the Priority for Action

Governance/Mainstreaming
P2. Strengthening governance to manage disaster risk

Leadership/Governance/Management

Investment for DRR
P3. Investing in disaster prevention and mitigation as an asset for sustainable development

Disaster management cycle

Prep
P4. Preparing for effective response

Build Back Better
P4. Recovery and reconstruction for a resilient society

Knowledge/Evidence/Science Support

Understanding Disaster Risk
P1. Understanding Disaster Risk
17. To attain the expected outcome, the following goal must be pursued:

Prevent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience.
Variations of Risk types

Time span & Cause

Existing Risk

Future Risk
produced by development
risk types-2

Extensive event,
Low frequency but serious damage by one event

Intensive event,
High frequency happen, small damage by each but huge damage by total

Damage

Frequency

every 500 years
every 30 years
every 2 years

gradually varied from intensive to extensive
risk types-2

Extensive Risk

Extensive disaster risk

The risk of low-severity, high-frequency hazardous events and disasters, mainly but not exclusively associated with highly localized hazards.

Annotation: Extensive disaster risk is usually high where communities are exposed to, and vulnerable to, recurring localised floods, landslides storms or drought. Extensive disaster risk is often exacerbated by poverty, urbanization and environmental degradation.

Intensive Risk

Intensive disaster risk

The risk of high-severity, mid to low-frequency disasters, mainly associated with major hazards.

Annotation: Intensive disaster risk is mainly a characteristic of large cities or densely populated areas that are not only exposed to intense hazards such as strong earthquakes, active volcanoes, heavy floods, tsunamis, or major storms but also have high levels of vulnerability to these hazards.
risk types-2

Magnitude & Frequency

**Intensive event,**
High frequency happen, small damage by each but huge damage by total

**Extensive event,**
Low frequency but serious damage by one event

Typhoon Ondoy in Manila 2009

Thai Flood 2011
Variations of Risk types

- **Intensive Risk**
- **Existing Risk**
- **Future Risk**
  produced by development
- **Extensive Risk**

Impact

Time span
UN World Conference on Disaster Risk Reduction

For every €1 invested in disaster prevention, €4 to €7 are saved in disaster response.

#Road2Sendai  #WCDRR

Source: EU  25/02/2015
In order to make **Investment**
define design level & residual risks

- **Extensive event, Japanese case; Design Force, L2**
- **Intensive event, Japanese case; Design Force, L1**

- Prevent and/or Reduce mainly by Structure Measures
- Mitigate with additional Non-Structure Measures
Risk type-3

How to define the borderline of structure measures depends on each country’s economic condition

Residual Risk Zone

Protect Risk Zone

Mitigate with additional Non-Structure Measures

Prevent and/or Reduce mainly by Structure Measures
Sendai Framework
Logical Relation between 7 Targets

- a. mortality
- b. affected people
- c. economic loss
- d. damage to critical infrastructures
- e. National & local Strategy by 2020
- f. International cooperation
- g. Access to information

Humanitarian
Counter Measures
Development/SDG
Prevention
Investment

E/W
Sendai Framework for DRR Targets

=Relation between 7 Targets for 2030=

2015

Target (e)
National & local
Strategy by 2020

Enhance another Target
(a)∼(d),(f),(g), based on the
Strategy formulated by 2020

2030

2020

economic loss
damage to health &
educational facilities

Relation between outcome Targets
and actions to be taken

affected people
How about practical support to Target(e), especially in developing countries?

- Methodology should be “Basic but Practical” to developing countries
- Involve Key stakeholder like Policy level & Ministry of Finance

Knowledge/Evidence/Science Support

Understanding Disaster Risk

P1. Understanding Disaster Risk
Sendai Framework for DRR Targets
=Relation between 7 Targets for 2030=

2015

Target (e)
National & local Strategy by 2020

2020

Enhance another Target
(a)～(d),(f),(g), based on the Strategy formulated by 2020

2030

Thank you for your attention
How about practical support to Target(e), especially in developing countries?

Target (e) National & local Strategy by 2020

Sendai Initiative of Japan
4 billion US$ support training of 40,000 DRR officials, within 4 years, from 2015 to 2018

JICA fiscal year 2015, 2016 total 3.1 billion $ financial support & 39,776 official training

Thank you for your attention