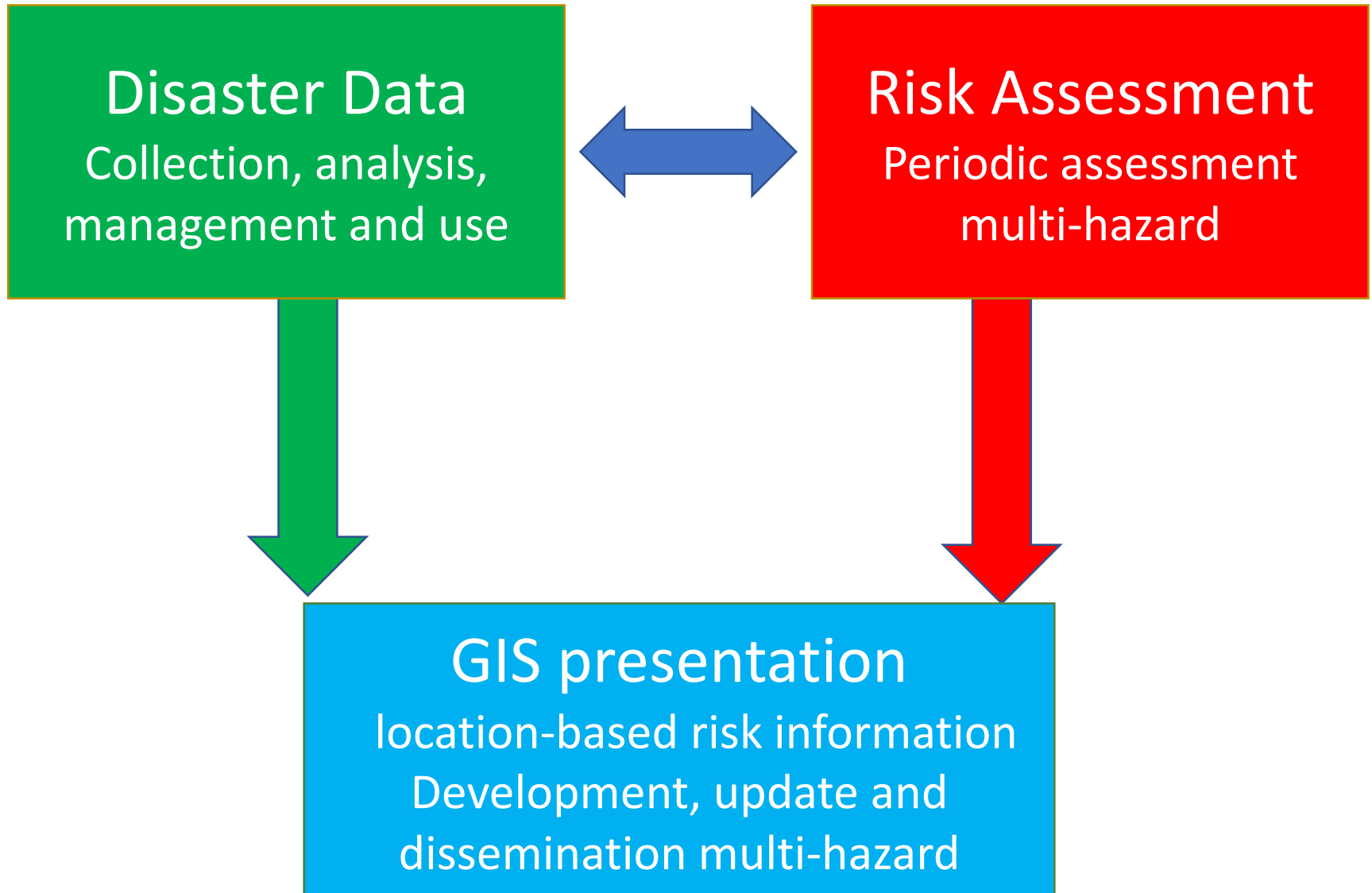


**Scoping Workshop on
Science and Technology for Disaster Resilience 2017
Science Council of JAPAN/UNISDR**

Priority 1: Understanding Disaster Risk

23 May 2017 at CANCUN, MEXICO

Understanding disaster risk



Present status

1. [Disaster Data] Disaster Loss and Damage Data is not systematically compiled in many countries
2. [Risk Assessment] Current and forefront knowledge is not fully utilized for disaster risk assessment
3. [GIS presentation] Geographic Information Systems and related tools are easily available and can be used more for disaster assessment such as hazard maps

Sharing Practices, Examples

1. [Disaster Data]

Example of disaster data in Japan

White Paper and 2011 East Japan Disaster data

Example of global disaster data

GLIDE (ADRC), UN/ISDR

2. [Risk Assessment]

Earthquake/tsunami risk assessment for the Nankai Trough

Earthquake

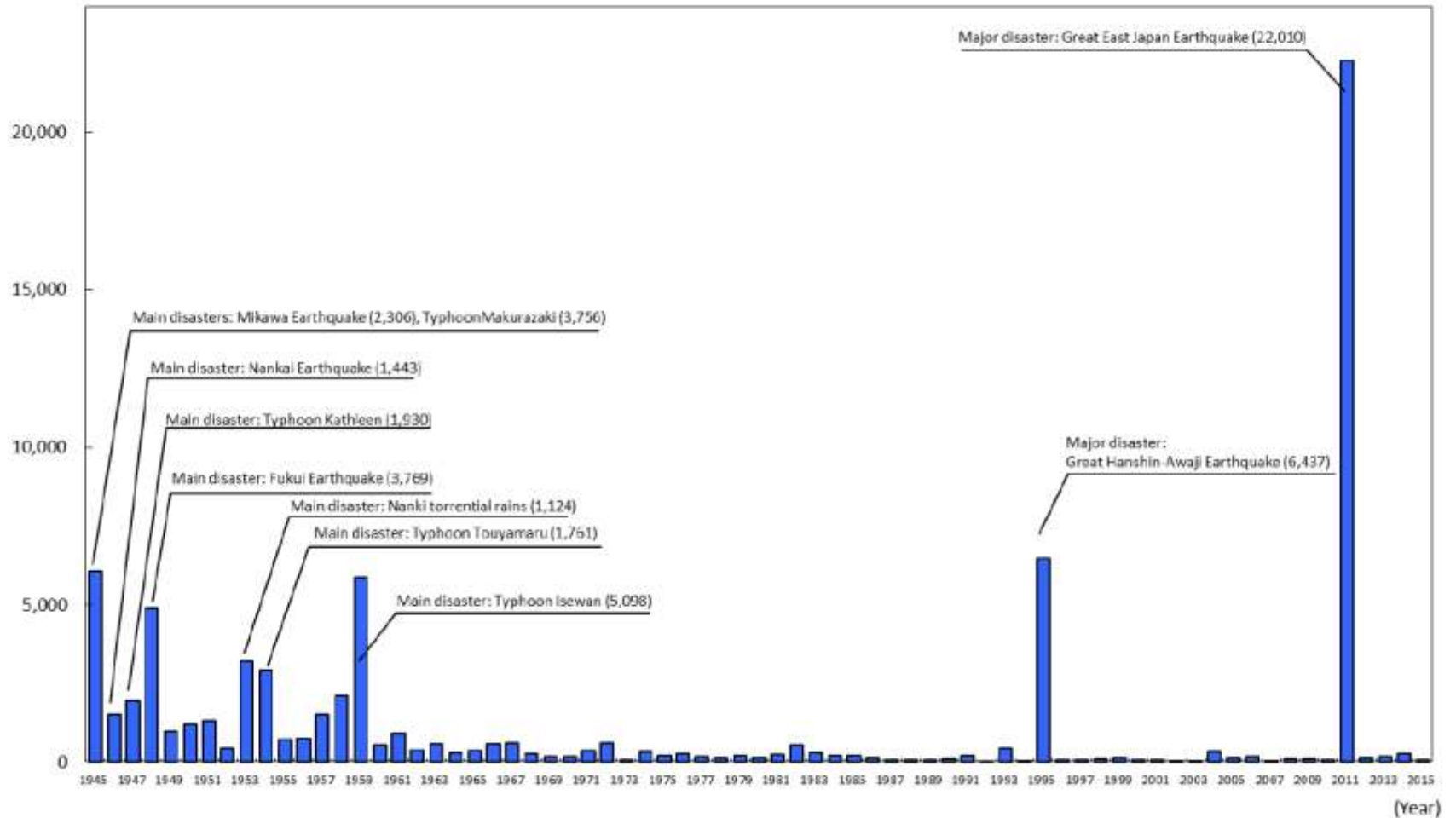
Probabilistic and multi-hazard assessment

3. [GIS presentation]

Japan: SIP4D of NIED

Other countries: ESRI

(People) Number of Fatalities and Missing Persons Resulting from Natural Disasters



Number of Fatalities and Missing Persons Resulting from Natural Disasters in Japan, 1945-2015

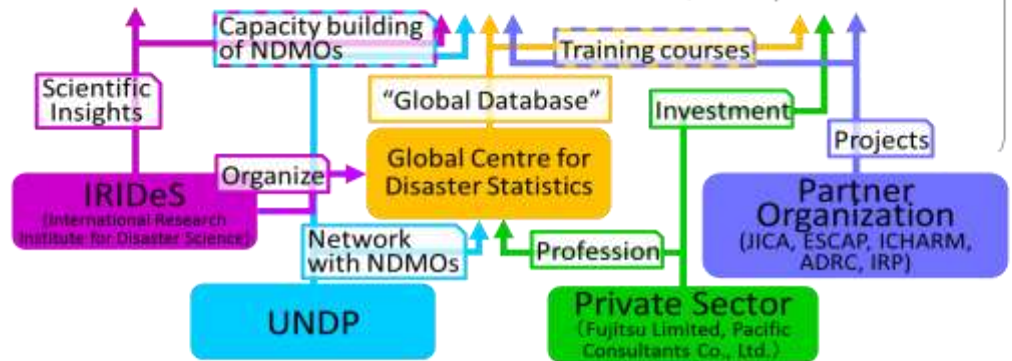
4 priorities for action in the Sendai framework
Activities to be achieved in countries

- [Priority 1] Understand Disaster Risk
- [Priority 2] Strengthen disaster risk governance
- [Priority 3] Invest in disaster risk reduction
- [Priority 4] Enhance disaster Preparedness / "Build Back Better" in recovery



Supports provided through the network of GCDS

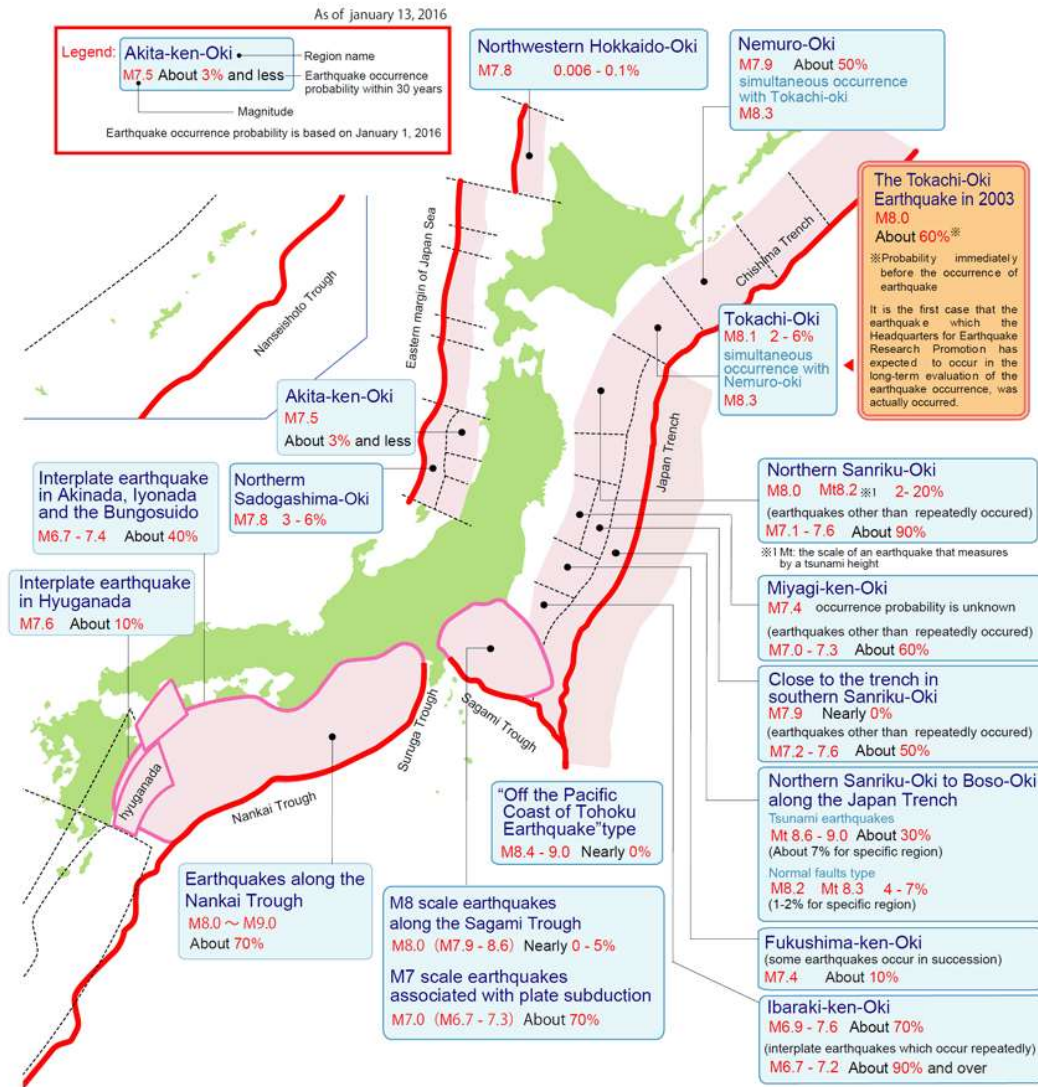
- [Scientific Knowledge]
 - Risk Analysis (loss & damage data combined with hazard data)
 - Economic Analysis
 - Health issue
- [Capacity Building]
 - DRR governance/planning
 - ICT profession/hardware
 - Risk Assessment
 - Data collection
- [Stimulate DRR investment]
 - Tools to visualize impact
 - "White paper" for decision making
 - B/C analysis



- Outcome
- UN
- UNISDR

Contribution to the Global targets
Sendai Framework for Disaster Risk Reduction /
2030 Agenda for Sustainable Development (SDGs)

Global Centre for Disaster Statistics

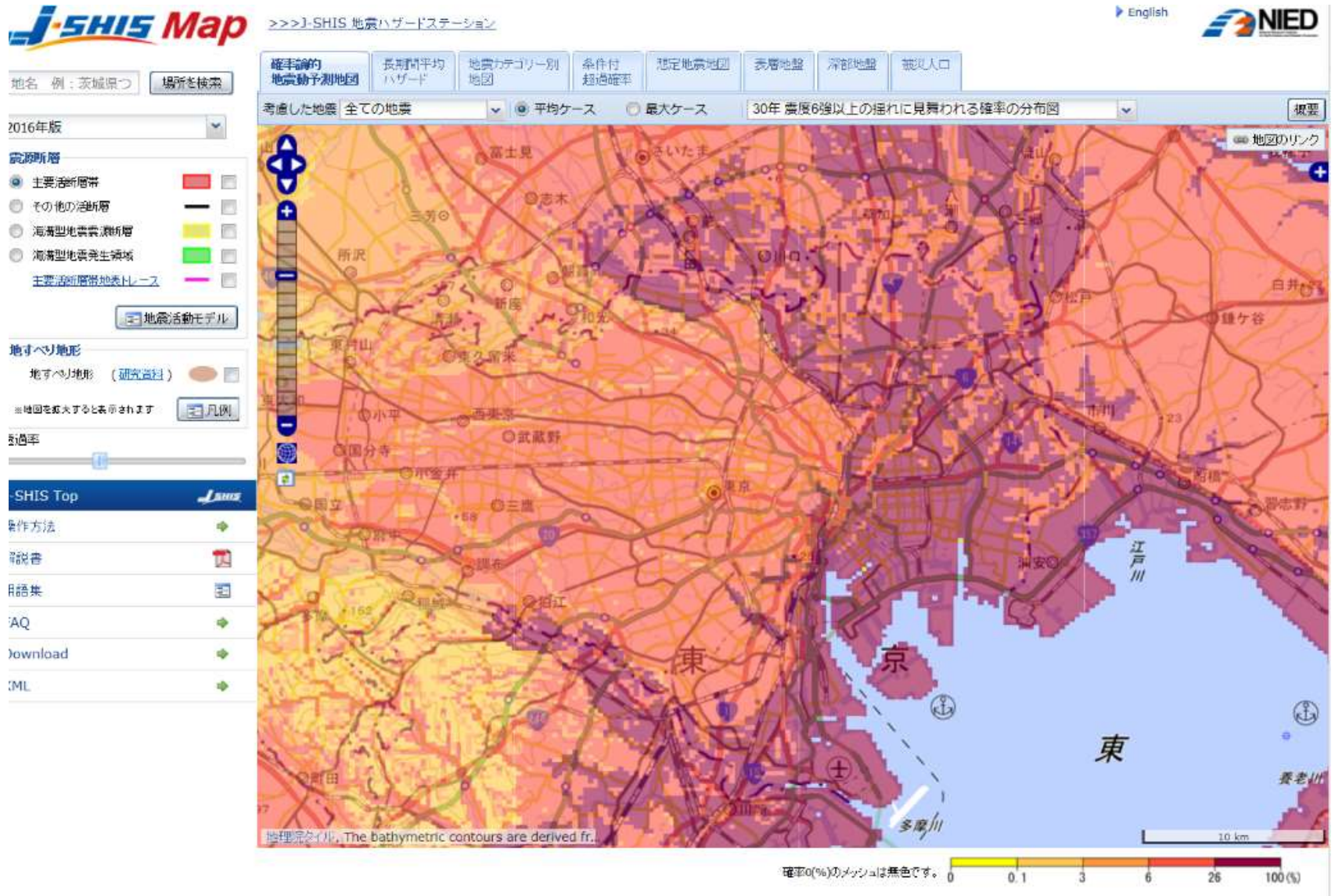


Probabilistic seismic hazard assessment in Japan



Multi-hazard map in Tokai-mura, Japan (this is a map for tsunami hazard)

Location-based disaster risk: use of GIS



30-year Probabilistic Map in case of earthquake with Japanese seismic intensity 6+ in Tokyo area

Discussion Framework

1. [Disaster Data]

How to collect disaster data, standardization

How to analyse the data and contribute to policy making

Role of international organizations

2. [Risk Assessment]

How to define risk, vulnerability and hazard

How to define multi-hazard, multi-risk

How to make use of probabilistic assessment

How to make periodic assessment

How to shift from planned management to adaptive management

3. [GIS presentation]

How to use GIS for dissemination of disaster risk assessment

G-based technology available throughout the world?

Expected Inputs to National Platform Guideline and Synthesis Report

1. [Disaster Data]

Manuals and guidelines

for data collection, analysis, management and use

Standardising the terms

Global Centre for Disaster Statistics

Scientific contribution to readiness review, technical guidance

2. [Risk Assessment]

Manuals and standardisation

of risk assessment, periodic assessment

3. [GIS presentation]

SOPs for the use of G-info for disaster risk assessment