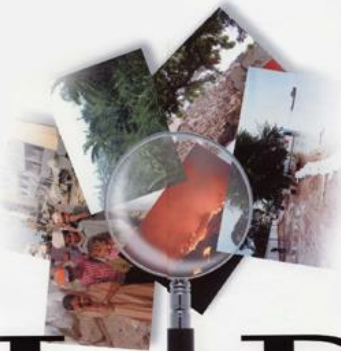# Introduction of GLIDE system

Masahiko MURATA

Professor, Kansai University of Inter'l Studies (KUIS)

Director, Safety Management Education and Research Institute, KUIS

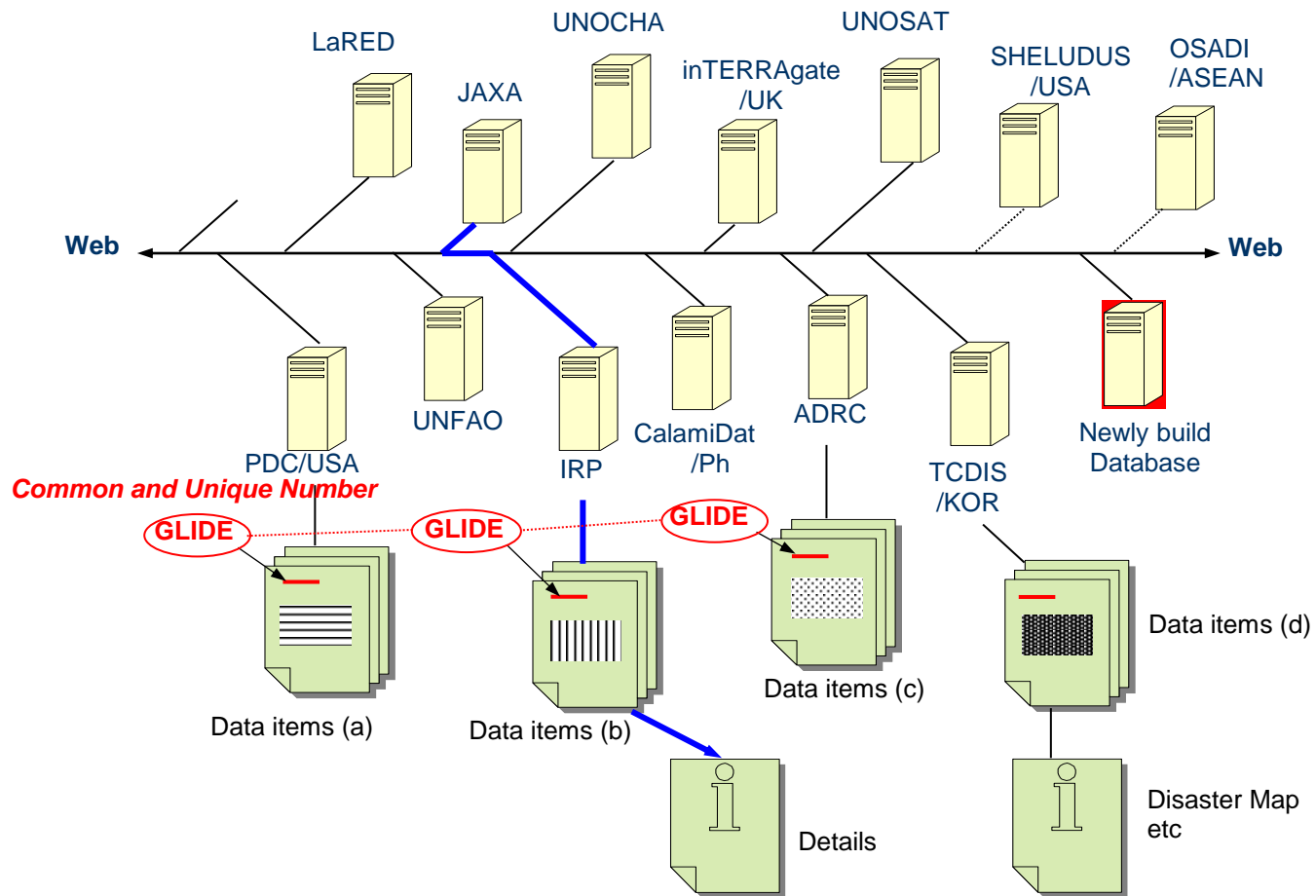**Visiting Researcher/ Advisor**
Asian Disaster Reduction Center (ADRC)

GLobal unique disaster IDEntifier)

Disaster databases in the world

GLIDE - For Effective Disaster Information Sharing & Management

Background

- Each organization has its own databases using its own coding system
- No links between databases
- Not easy to relate a certain event in database A to an event of database B

Difficulty to match data

Different names of events are used;

(West) India Earthquake, Gujarat Earthquake, Bhuj Earthquake in 2001

Kobe Earthquake, Hanshin- Awaji Earthquake, Hyogo-Nanbu Earthquake in 1995

Different dates of event occurrence are registered;

Difficult to identify when a flood/drought started

By introducing GLIDE(GLobal unique disaster IDEntifier)

- **Easy access to various data sources**
- **Rapid automatic linking by search engine**

Facilitate Effective Info. Sharing

GLIDE
(GLobal unique disaster IDEntifier)

ADRC proposed GLIDE for effective sharing of disaster data sources among different organizations and institutions

(Example)

Tsunami Disaster Caused by the Indian Ocean Earthquake and Tsunami on December 26, 2004

Hazard Code   **Serial Number**

TS-2004-000147-IDN

Year   **ISO Country Code**

〔 **DR**: Drought **EQ**: Earthquake **EP**: Epidemic **FL**: Flood **TS**: Tsunami **SL**: Slide **VO**: Volcano **WV**: Wave / Surge **WF**: Wild Fire **ST**: Wild Storm 〕

Hazard Code used in GLIDE

CW - Cold Wave
CE - Complex Emergency
DR - Drought
EQ - Earthquake
EP - Epidemic
EC – Extra-tropical Cyclone
FR - Fire
FF - Flash Flood
FL - Flood
HT - Heat Wave
IN - Insect Infestation
LS - Land Slide

MS - Mud Slide
OT - Other
ST - Severe Local Storm
AV - Snow Avalanche
SS - Storm Surge
AC - Tech. Disaster
TO - Tornadoes
TC - Tropical Cyclone
TS - Tsunami
VW - Violent Wind
VO - Volcano
WF - Wild fire

24 hazard codes

Note: ET - Extreme temperature (use CW/HW instead), FA -Famine
(use other "Hazard" code instead), SL - SLIDE (use LS/AV/MS instead),
WV-Wave/Surge (use TS/SS instead)

Current registry on GLIDEnumber.net

- No. of registered events: almost 6,250 from 1965 to 13th May 2018

Event	Records
Flood	1,749
Tech. Disaster	1,081
Tropical Cyclone	799
Epidemic	577
SEVERE LOCAL STORM	469
Earthquake	419
Drought	259
Flash Flood	153
Land Slide	136
Wild fire	122

Year	Records
2008	309
2009	296
2007	291
2010	288
2006	256
2005	252
2012	243
2011	236
2004	218
2015	205
2014	202

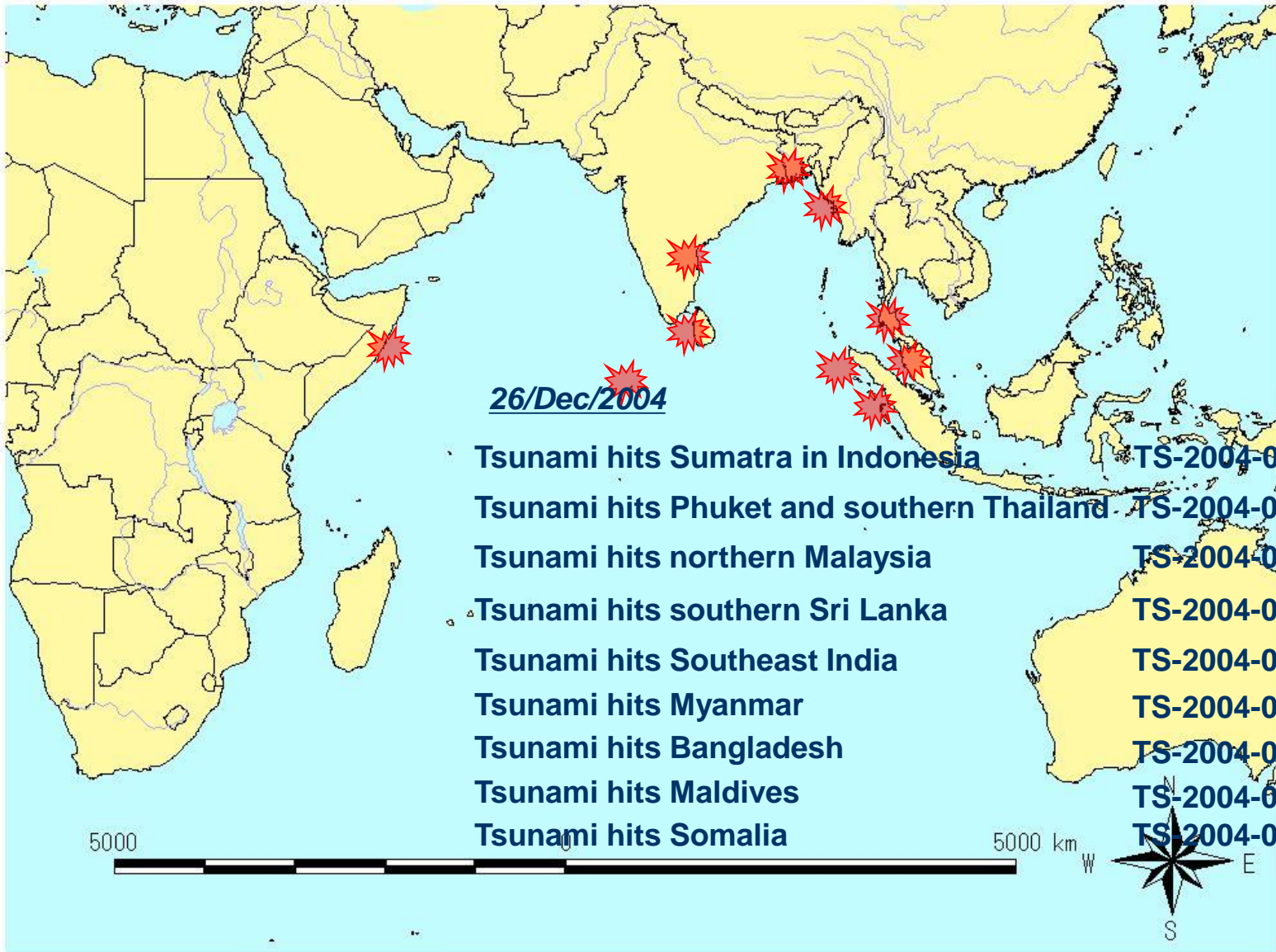| Country	Records
China, People's Republic	455
United States	286
Indonesia	271
Philippines	246
India	232
Nigeria	166
(Non-Localized)	160
Japan	138
Bangladesh	122
Viet Nam	116

Criteria for Generation of GLIDE number

- GLIDE should be generated based on a certain criteria
- ADRC's criteria for the generation of GLIDE

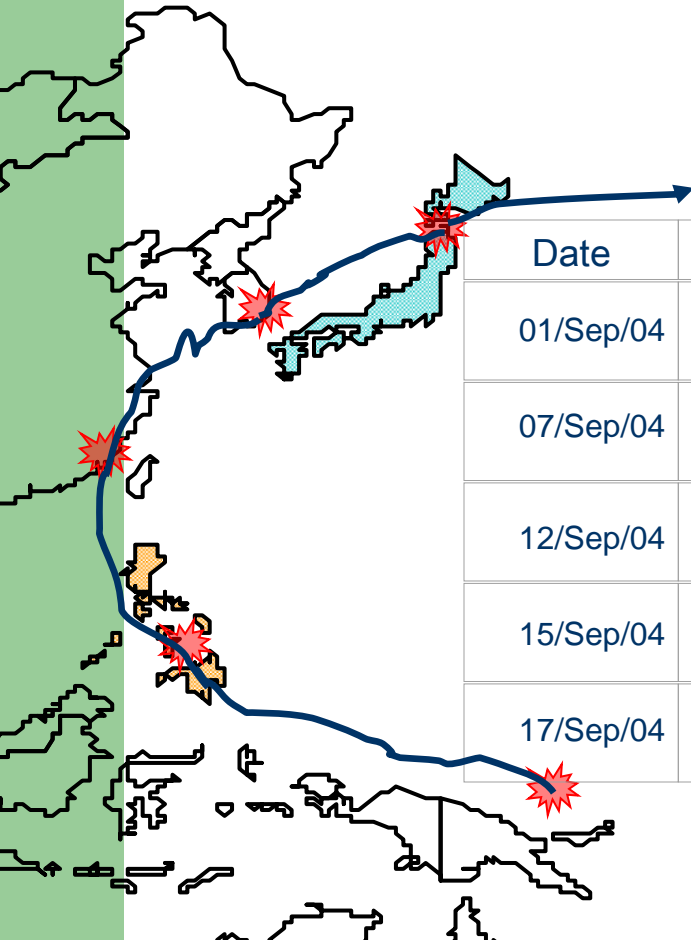|	
A) Japan	Five (5) or more people killed, hundred (100) or more people injured, thousand (1,000) or more people affected
B) Asia	Ten (10) or more people killed, hundred (100) or more people injured, thousand (1,000) or more affected
C) World	Hundred (100) or more people killed, thousand (1,000) or more people injured, ten thousand (10,000) or more people affected

Your criteria could include;
- ☐ Casualties (dead / injured / affected)
- ☐ Damages to agriculture, infrastructure
- ☐ Declaration of a state of emergency
- ☐ Call for international assistance

Effective information sharing tool for multi-national disasters

26/Dec/2004

Tsunami hits Sumatra in Indonesia	TS-2004-000147-IDN
Tsunami hits Phuket and southern Thailand	TS-2004-000147-THA
Tsunami hits northern Malaysia	TS-2004-000147-MYS
Tsunami hits southern Sri Lanka	TS-2004-000147-LKA
Tsunami hits Southeast India	TS-2004-000147-IND
Tsunami hits Myanmar	TS-2004-000147-MMR
Tsunami hits Bangladesh	TS-2004-000147-BGD
Tsunami hits Maldives	TS-2004-000147-MDV
Tsunami hits Somalia	TS-2004-000147-SOM

Effective information sharing tool for multi-national disasters

Date	Phenomena	GLIDE
01/Sep/04	ADRC generate GLIDE for typhoon A	**TC-2004-000187-**
07/Sep/04	Many houses were lost in the Philippines	**TC-2004-000187-PHL**
12/Sep/04	200 people evacuated to avoid Storm Surge in China	**SS-2004-000187-CHI**
15/Sep/04	10 people dead by Landslide in Korea	**LS-2004-000187-KOR**
17/Sep/04	1000 houses were flooded in Japan	**FL-2004-000087-JPN**

Current status of GLIDE Community

GLIDE Operators	○ Institutional Operators
	   ADRC, CRED, ReliefWeb(UNOCHA)
	   JRC/EC, IFRC, LaRED
	   CDEMA
	○ Country Operators
	   Lao PDR, Malaysia, Philippines, Singapore,
	   Thailand, Vietnam, Indonesia

GLIDE Users	FAO, UNOSAT, GDACS Typhoon Committee (UNESCAP / WMO) JAXA, NIED, PDC Dartmouth Flood Observatory SHELDUS (University of South Calorina) Benfield Ltd.
Endorsed by	UNDP, UNISDR, WMO

Functions of GLIDEnember.net

- ## Search Engine of disasters
  Users can search for disasters by any combination of continents, countries, event types and dates as well as keywords.

- ## Instant Notification of disasters
  Users will automatically receive instant notification of disasters by e-mails.

- ## Issuance of GLIDE number
  GLIDE operators can issue new GLIDE numbers to disasters upon their occurrence.

Generate New GLIDEnumber Record

reliefweb

Glide: FL-2018-000065-TJK

Tajikistan: Floods - May 2018

Overview

Heavy and prolonged rains on 16-21 May caused floods in the southern part of Tajikistan affecting 9 villages in 2 districts of Khatlon Province. According to the results of the rapid assessment conducted by the Government Emergency Response Commission and the Committee of Emergency Situations and Civil Defense under the Government of Tajikistan (CoES) between 17 and 26 May, at least 6 people were killed, 1,145 households (5,725 people) were heavily affected, infrastructure objects were damaged or destroyed in Farkhor and Panj districts of Khatlon Province. (IFRC, 2 Jun 2018)

Infographics

Tajikistan: Location Map (2013)

▶ **VIEW ALL MAPS & INFOGRAPHICS**

https://reliefweb.int/disaster/fl-2018-000065-tjk

http://www.unitar.org/unosat/map/2199

UNOSAT LIVE Map: Nepal Earthquake

UNOSAT

> What we do

Maps and Data
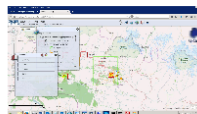
> Our Portfolio

Our Events

Product ID: 2199 - English
Published: 27 Apr, 2015
GLIDE: EQ-2015-000048-NPL

Product Links

Shapefile   - Download a Shapefile of data
WebMap   - Dynamic viewing in a browser
Geodatabase - Download data in the ESRI format

www.ifrc.org
**Saving lives,
changing minds.**

**Revised Emergency Plan of Action (EPoA)
Nepal: Earthquake**

International Federation
of Red Cross and Red Crescent Societies

Emergency Appeal n° MDRNP008	Glide n° EQ-2015-000048-NPL
Date of issue: 10 September 2017	**Date of disaster:** 25 April 2015
Point of contact in IFRC Nepal Country Office: Juja Kim Head of Delegation Email: juja.kim@ifrc.org	**Point of contact in the Nepal Red Cross Society:** Dev Ratna Dhakhwa Secretary General Email: dev@nrcs.org
IFRC Operations Manager: Klaus Palkovits Programme Coordinator Email:klaus.palkovits@ifrc.org	**Nepal Red Cross Society operational contact:** Umesh Prasad Dhakal Head of Emergency Response Operation (ERO) Email: umesh@nrcs.org
Operation start date: 25 April 2015	**Expected timeframe:** 38 months (until 30 June 2018)
Overall operation budget: CHF 62.9 million	**DREF allocated as loan to appeal:** CHF 500,000
Number of people affected: Around 8.5 million	**Number of people to be assisted:** an estimate of 700,000 people (140,000 families)

Related Records:
Same Event in other Countries

EQ-2015-000048-IND
Earthquake, India: A powerful earthquake struck Nepal and sent tremors through northern India on Saturday, killing hundreds of people, toppling a 19th-century tower in the Nepalese capital Kathmandu and triggering a fatal avalanche on Mount Everest. Tremors strike northern India, death toll there reaches 12

EQ-2015-000048-BGD
Earthquake, Bangladesh: An earthquake rattled the Dhaka, Chittagong, Barisal, Rajshahi, Dinajpur, Rongpur, Kushtia and different parts of the country on April, 25. The 7.8 magnitude earthquake's epicenter was 81 kilometers (50 miles) northwest of Kathmandu, Nepal at a depth of 9.3 moles. The Meteorological Department stated that the epicenter of the earthquake was 745 km north-west of Bangladesh. In Bangladesh, total 5 people were killed and up to 100 people were injured while evacuating.

EQ-2015-000048-CHN
Earthquake, China, People's Republic: At least 20 were killed and 58 injured in southwest China's

GDACS is a cooperation framework between the United Nations, the European Commission and disaster managers worldwide to improve alerts, information exchange and coordination in the first phase after major sudden-onset disasters.

HOME   ALERTS   VIRTUAL OSOCC   MAPS & SATELLITE IMAGERY   KNOWLEDGE   ABOUT

M 6.9 in Indonesia on 05 Aug 2018 11:46 UTC

Summary   Impact   Meteo   Tsunami   Shakemap   GTS   Maps   Media   Resources

Event summary

This earthquake can have a high humanitarian impact based on the magnitude and the affected population and their vulnerability.

Earthquake Magnitude:	6.9M
Glide number:	EQ-2018-000127-IDN
Depth:	31 Km
Lat/Lon:	-8.2871 , 116.4515
Event Date:	05 Aug 2018 11:46 UTC
Exposed Population:	3800000 people within 100km
Inserted at:	05 Aug 2018 13:11 UTC
INFORM Coping capacity :	4.8 (IDN)

Gdacs Score

2.4

0   1   2

For more info on GDACS alert score click here.

http://gdacs.org/report.aspx?eventid=1152815&episodeid=1222783&eventtype=EQ

Sendai Framework for DRR has the Seven Global Targets

a. **Reduce global disaster mortality** by 2030, aiming to lower average per 100,000 global mortality rate in the decade 2020-2030 compared to the period 2005-2015.

b. **Reduce the number of affected people** globally by 2030, aiming to lower average global figure per 100,000 in the decade 2020 -2030 compared to the period 2005-2015.

c. **Reduce direct disaster economic loss** in relation to global gross domestic product (GDP) by 2030.

d. **Reduce disaster damage to critical infrastructure** and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030.

e) Increase the number of countries with national and local disaster risk reduction strategies by 2020.

f) Enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this Framework by 2030.

g) Increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030.

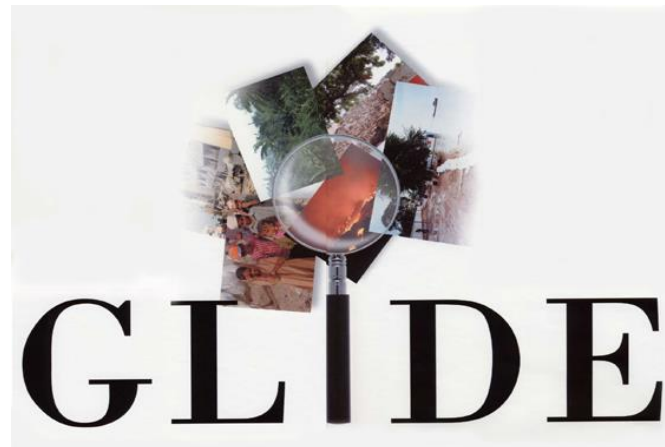# To Achieve the Global Target of the Sendai Framework

- Needs statistic disaster data of 2005-2015 for a-d

  ⟹ **G**lobal **C**enter for **D**isaster **S**tatistics will provide, EM-DAT, CRED may be used

- *Actually Reduce Disaster Damage*

  ⟹ Various DRR related information of each past disasters such as countermeasures taken, support for refugees, build back better recovery procedure, lessons learned
   --- should be referred from data source of DRR related organizations using GLIDE System

Challenges of GLIDEnember.net

1) Numbering of unregistered disasters

2) Organizing and holding the GLIDE Steering Committee

3) Update GLIDE server system and operation

4) Establishment of GLIDE e-Learning for operators

5) Improve traceability of continuous disaster and damage

6) Updating of registered information

7) Improve GLIDE server system interface such as API

8) Publish GLIDE Annual Report

It's time to Set GLIDE as DRR Information Sharing Global Standard !

ADRC Promote and Implement the GLIDE Project with Close Cooperation with all of You.

http://glidenumber.net

Thank You for Your Attention