United Nations/Germany International Conference
International Cooperation Towards Low-Emission and Resilient Societies

22 November, 2017
Bonn, Germany

Role of Space Technologies to Contribute to the Monitoring of Goals and Targets

(Sendai Framework for Disaster Risk Reduction 2015-2030)

In support of the Sendai Framework
for Disaster Risk Reduction 2015 - 2030

UNISDR
United Nations Office for Disaster Risk Reduction

Institutionalisation of the Monitoring mechanism of Sendai Framework

❑ In Mar 2015, the Open-ended Intergovernmental Expert Working Group (OIEWG) was proposed at the World Conference on DRR to undertake the following:

  o Develop INDICATORS to measure global progress in the implementation of the Sendai Framework

  o Update of TERMINOLOGY on disaster risk reduction

❑ In Dec 2016, OIEWG submitted its report , which the UN General Assembly endorsed in Feb 2017

❑ In March 2017, UN Statistical Commission, 48th Session, endorsed the recommended indicators of the OIEWG, and identified UNISDR as custodian agency for the same under SDGs related to the following :

  o SDG1: Poverty Reduction

  o SDG 11: Cities and human settlements

  o SDG 13: Climate Action

OIEWG called upon UNISDR to **provide technical guidance** - together with the *international statistical community* - to operationalize the global monitoring frameworks of the Sendai Framework and relevant SDGs, through initiatives including:

1. Undertaking a review of data readiness with respect to the indicators

2. Exploring minimum standards and metadata for disaster-related data and statistics

3. Reviewing methodologies for measurement and processing of statistical data

4. Developing technical guidance material for the testing and roll -out of the indicators and the web-based monitoring system

This is the core work that UNISDR's Bonn office has been mandated to undertake

Sendai Framework for Disaster Risk Reduction 2015-2030

One Expected Outcome

One Goal

Four Priorities

Seven Targets

Thirty-eight Global Indicators

The Seven Targets of Sendai

No.	Global Target	Type
A	Substantially **reduce global disaster mortality** by 2030, aiming to lower the average per 100,000 global mortality rate in the decade 2020–2030 compared to the period 2005– 2015;	Output
B	Substantially **reduce the number of affected people** globally by 2030, aiming to lower the average global figure per 100,000 in the decade 2020–2030 compared to the period 2005–2015;	Output
C	**Reduce direct disaster economic loss** in relation to global gross domestic product (GDP) by 2030;	Output
D	Substantially **reduce disaster damage to critical infrastructure and disruption of basic services**, among them health and educational facilities, including through developing their resilience by 2030;	Output
E	Substantially **increase the number of countries with national and local disaster risk reduction strategies** by 2020;	Input
F	Substantially **enhance international cooperation to developing countries** through adequate and sustainable support to complement their national actions for implementation of the present Framework by 2030;	Input
G	Substantially **increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments** to people by 2030.	Input

So where could **Space Technologies** come in?

Some examples where they do ……Target B

No.	Global Target
B	Substantially **reduce the number of affected people** globally by 2030, aiming to lower the average global figure per 100,000 in the decade 2020–2030 compared to the period 2005–2015;

Indicators

B-1 (compound) Number of directly affected people attributed to disasters, per 100,000 population.

B-3 Number of people whose damaged dwellings were attributed to disasters.

B-4 Number of people whose destroyed dwellings were attributed to disasters. B-5 Number of people whose livelihoods were disrupted or destroyed, attributed to disasters

……and Target C

No.	Target
C	**Reduce direct disaster economic loss** in relation to global gross domestic product (GDP) by 2030;

Indicators

C-1 (compound) Direct economic loss attributed to disasters in relation to global gross domestic product.

C-2 Direct agricultural loss attributed to disasters.

C-3 Direct economic loss to all other damaged or destroyed productive assets attributed to disasters.

C-4 Direct economic loss in the housing sector attributed to disasters.

C-5 Direct economic loss resulting from damaged or destroyed critical infrastructure attributed to disasters.

C-6 Direct economic loss to cultural heritage damaged or destroyed attributed to disasters.

……and Target D

No.	Global Target
D	Substantially **reduce disaster damage to critical infrastructure and disruption of basic services**, among them health and educational facilities, including through developing their resilience by 2030;

Indicators

D-1 (compound) Damage to critical infrastructure attributed to disasters.

D-2 Number of destroyed or damaged health facilities attributed to disasters.

D-3 Number of destroyed or damaged educational facilities attributed to disasters. A/71/644 16-21184 7/41

D-4 Number of other destroyed or damaged critical infrastructure units and facilities attributed to disasters.

……and a special mention for Target G

No.	Global Target
G	Substantially increase the **availability of and access to multi-hazard early warning systems and disaster risk information and assessments** to the people by 2030.

Indicators

G-1 (compound G2-G5) Number of countries that have multi-hazard early warning systems.

G-2 Number of countries that have multi-hazard monitoring and forecasting systems.

G-3 Number of people per 100,000 that are covered by early warning information through local governments or through national dissemination mechanisms.

G-5 Number of countries that have accessible, understandable, usable and relevant disaster risk information and assessment available to the people at the national and local levels.

G-6 Percentage of population exposed to or at risk from disasters protected

Few Issues related to Space Technologies in Sendai Framework Monitoring

- Decision on methodologies rests with the Member States

- Public-Private partnership is of utmost importance

- Not only post but very importantly in pre-disaster situations

- Satellite vs the neighbourhood drone

- Launch of Sendai Monitoring process 6-8 Dec in Bonn- Special session on Frontiers of Data

[A Drone's eye view of Kathmandu earthquake](#)

Thank you.

Rahul Sengupta

sengupta@un.org

Sendai Framework Monitoring Unit, Bonn Office,
United Nations Office for Disaster Risk Reduction (UNISDR)