



The CTBTO and Sustainable Development Goal #11

Using IMS Data to Make Cities Safer and
More Inclusive Through Disaster
Preparedness Laws



Sustainable Development Goal # 11

Make cities and human settlements inclusive, safe, resilient and sustainable

TARGETS

11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations

11.B By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels

INDICATORS

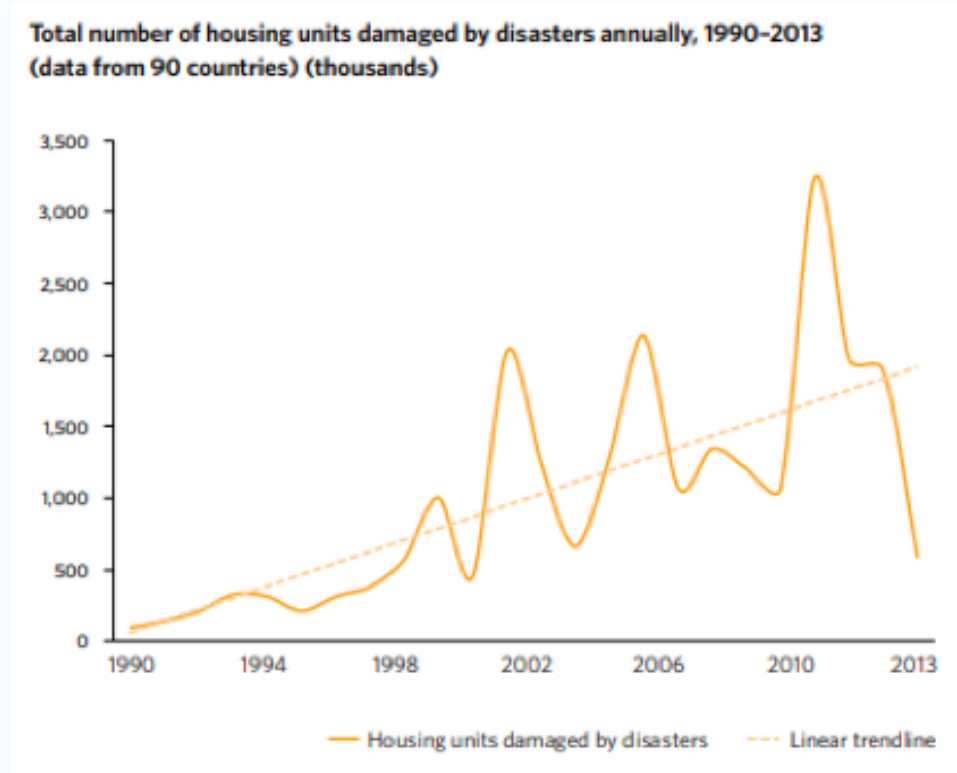
11.5.1 Number of deaths, missing persons and persons affected by disaster per 100,000 people

11.5.2 Direct disaster economic loss in relation to global GDP, including disaster damage to critical infrastructure and disruption of basic services^a

11.B.1 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030^a

11.B.2 Number of countries with national and local disaster risk reduction strategies^a

Disaster risk reduction key to improved resilience of the world's cities



Source: The Sustainable Development Goals Report 2018



Greater impact of disasters on the poor and marginalized



2011 East Japan earthquake
USD 200 billion = 3 % of Japan's GDP



2010 Haiti earthquake
USD 14 billion = 160 % of Haiti's GDP



Slums

Group of individuals living under the same roof in an urban area who lack one or more of the following:

- Durable housing of a permanent nature that protects against extreme climate conditions
- Sufficient living space which means not more than three people sharing the same room
- Easy access to safe water in sufficient amounts at an affordable price
- Access to adequate sanitation in the form of a private or public toilet shared by a reasonable number of people
- Security of tenure that prevents forced evictions

Disaster risk reduction as investment in sustainability

Cyclone Phailin, Odisha, India,
2013



12 million people affected

1 million people evacuated

27 casualties

Small number of deaths – testament to good government planning and response



Role of the CTBTO in Achieving SDG #11?

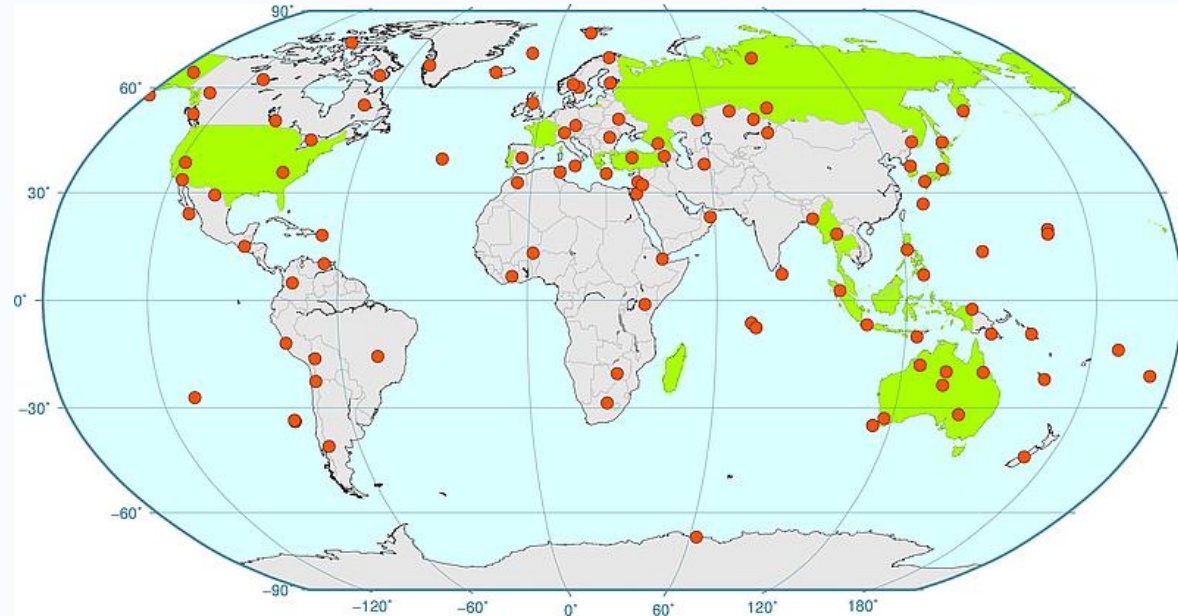


SUSTAINABLE DEVELOPMENT GOAL 11

Make cities and human settlements inclusive, safe, resilient and sustainable



Cooperative disaster warning agreements with the CTBTO to promote SDG #11



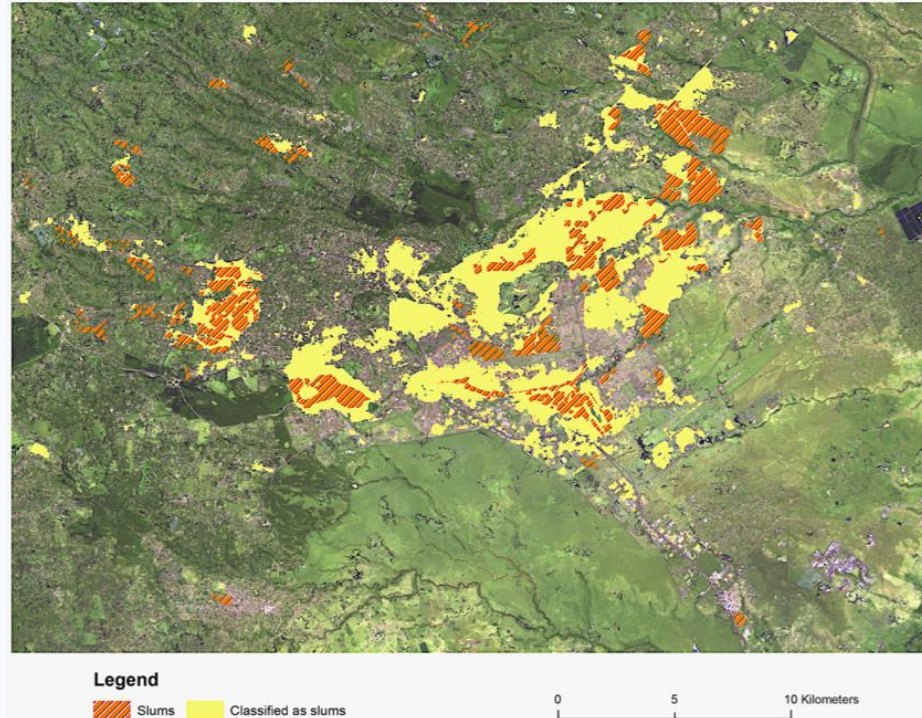
Tsunami warning centres in 15 countries (in green on the map) currently participate, receiving data from around 100 IMS stations (in red). Source: CTBTO, Spin-Offs for Disaster Warning and Science.



Early warning system legislative reforms to include international cooperation provisions

Sample Countries	Early Warning System Law	Early Warning System Policy	Provisions on International Cooperation
Algeria			
Angola		~	
Australia			
Austria			
Brazil			~
China		~	
Dominican Republic			
Ecuador	~	~	~
Ethiopia			
Guatemala		~	
India			
Iraq		~	
Italy			
Japan			
Kenya			
Kyrgyzstan		~	
Madagascar			
Mexico			
Namibia			
Nepal			
New Zealand			
Nicaragua			
Nigeria			
Philippines			
South Africa			
St. Lucia			
Ukraine		~	
United States			
Uruguay		~	
Vanuatu			~
Vietnam	~		~

Role of the CTBTO in protecting slums from disaster through data sharing



Visual detecting and mapping of slums using open data (Nairobi). Source: GIS and Agent-Based Modeling, <https://www.gisagents.org/>



Questions?

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