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Office for Outer Space Affairs

**UN-SPIDER**

# **UN-SPIDER and Early Warning Efforts**

**“United Nations/Germany  
Expert Meeting on the Use of  
Space Based Information in  
Early Warning Systems”**





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## The UN-SPIDER Programme

On 14 December 2006 the United Nations General Assembly established UN-SPIDER as a programme implemented by UNOOSA with the following mission statement:

*“Ensure that all countries and international and regional organizations have access to and develop the capacity to use all types of space-based information to support the full disaster management cycle.”*

- Especially by being **a gateway** to space information for disaster management support;
- serving as **a bridge** to connect the disaster management and space communities; and
- being **a facilitator of capacity-building and institutional strengthening** (A/RES/61/110).

# Space technologies which can be applied in all phases of the disaster management cycle

Images from earth observing satellites help assess the damage caused by disasters and assess vulnerability to hazards.



Satellite communications help warn people who are at risk, especially in remote areas. They help connect a disaster zone to the outside world

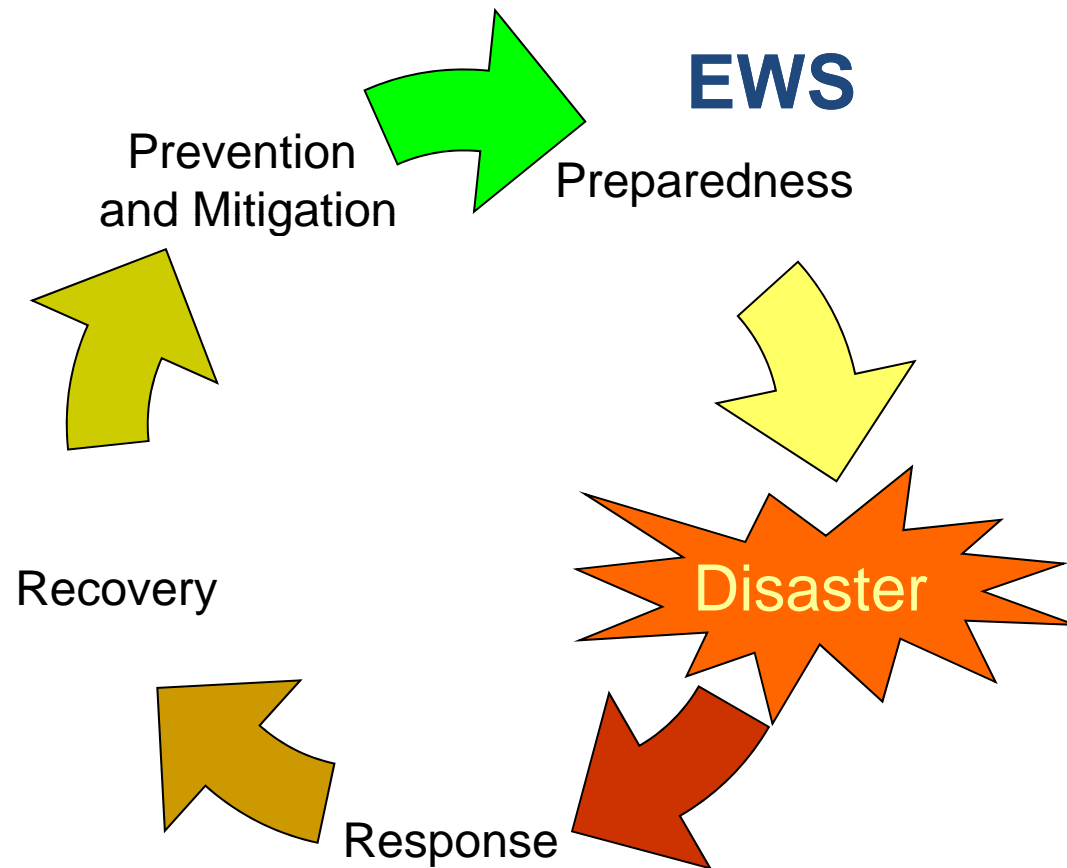
Global navigation satellite systems enable us to obtain positional information on events that have to be mapped





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## The disaster management cycle







## Aims of this Expert Meeting

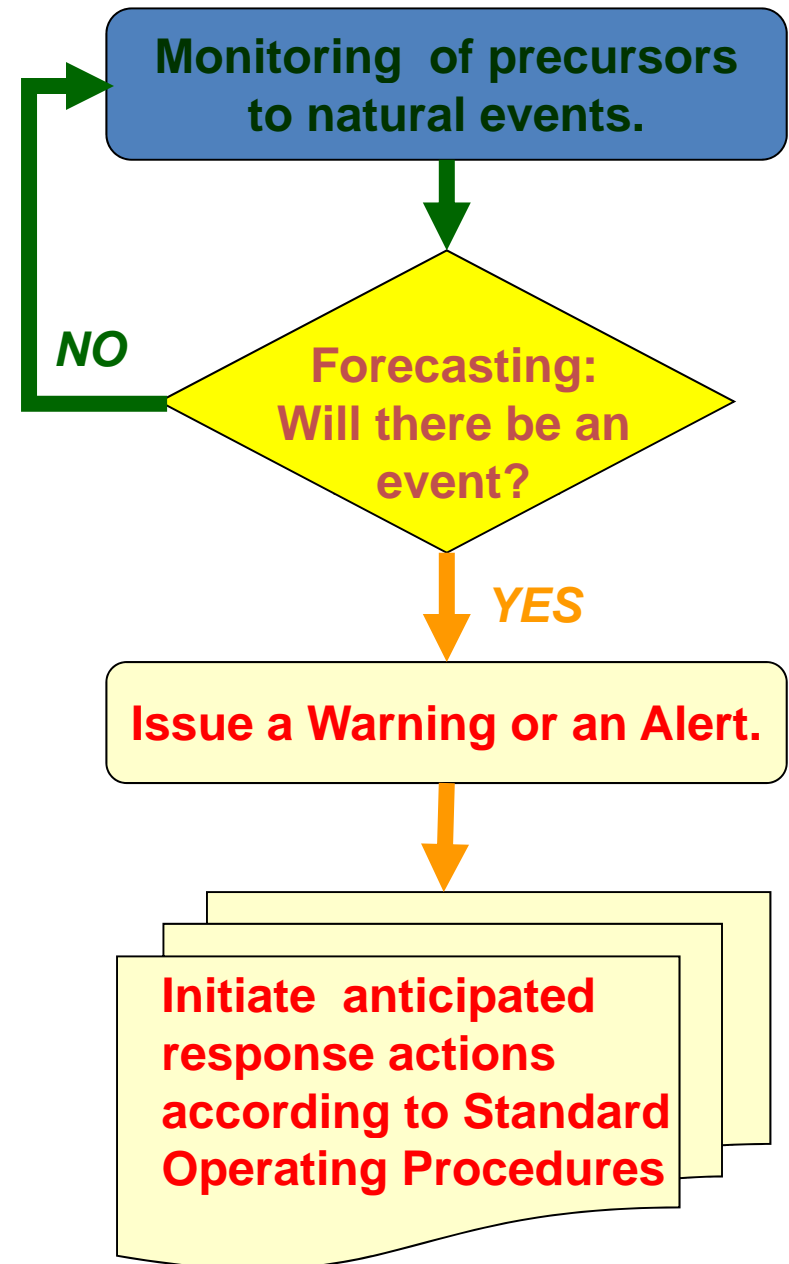
- To raise awareness concerning the **most recent advances** regarding the use of space-based information in early warning systems and disaster preparedness;
- To identify and systematize **areas** where space-based information can improve the functionality of existing early warning systems;
- To identify **knowledge management strategies** that can facilitate access to and use of space-based information in early warning and preparedness; and
- To bridge the space and the early warning communities.





**As stated by UNISDR, an Early Warning System is:**

*“the set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities and organizations threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss”.*





## Space based applications can allow operators of EWS:

- To **increase the warning time** before communities at risk are impacted by events which can trigger disasters;
- To improve the emission of warnings through **improved knowledge on the location of vulnerable communities and critical infrastructure**;
- To reduce losses through the **generation of complementary information** concerning potential impacts associated with particular events.





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## Using up-to-date satellite imagery to pinpoint the location of vulnerable groups, critical infrastructure and assets

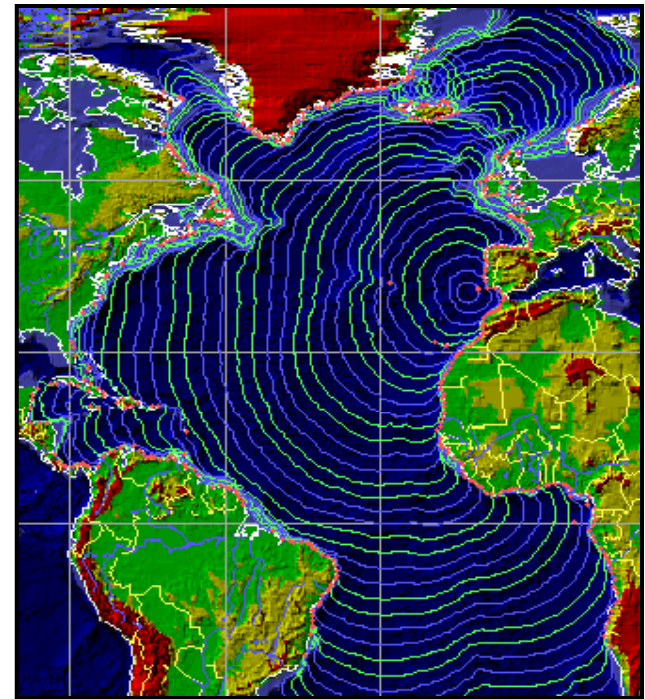






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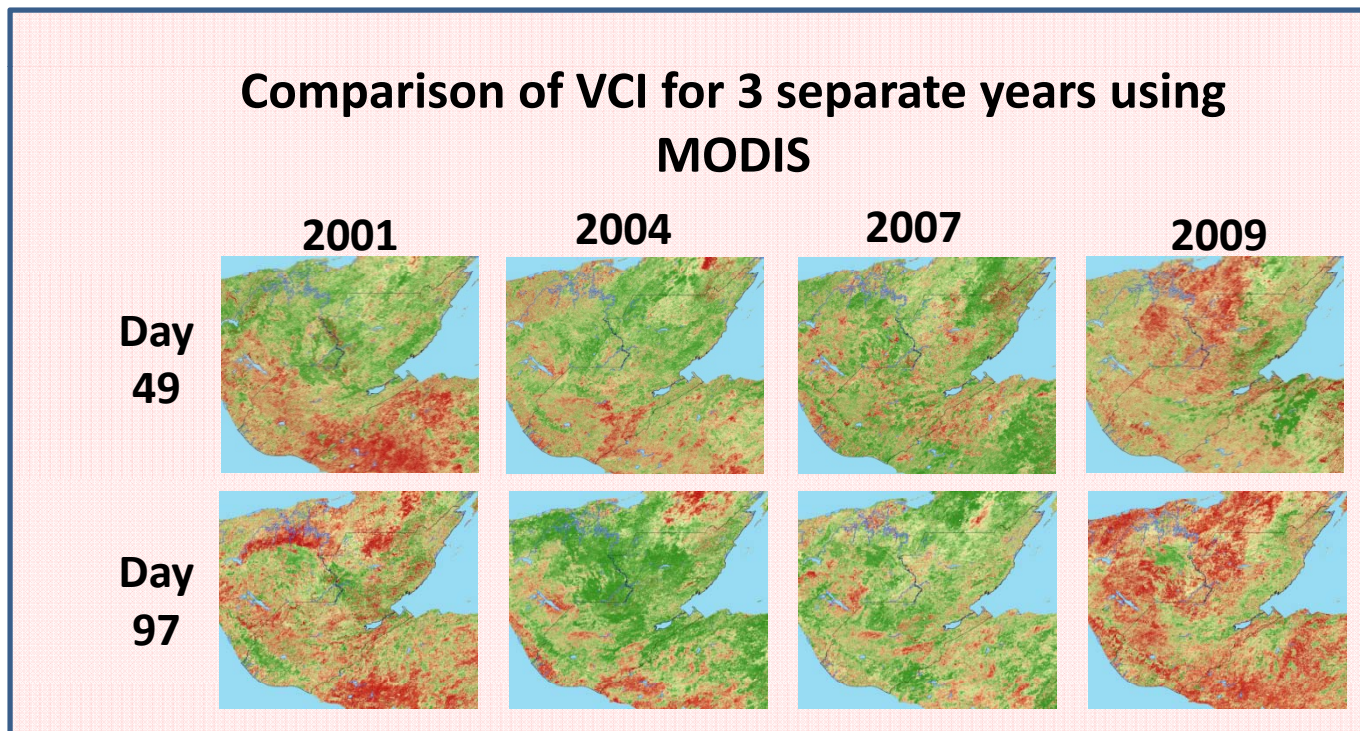
## **Using satellite telecommunications to transmit warnings across continents in case of events such as tele-tsunamis.**





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**Using archived imagery to provide an idea about how severe a drought may be in comparison to a historic one when focusing on vegetation and crops**





## Group discussions to be conducted during the Expert Meeting

- Risk Knowledge;
- Improving monitoring and forecasting capacities;
- Enhancing the links from Global to Local levels.







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# Thanks for your kind attention

<http://www.un-spider.org>

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