



INTPA-NEAR Environment & Climate Week

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Brussels, Belgium



Disaster Risk Management at the Joint Research Centre

Systems, services, data and networks useful for Delegations

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27/03/2023

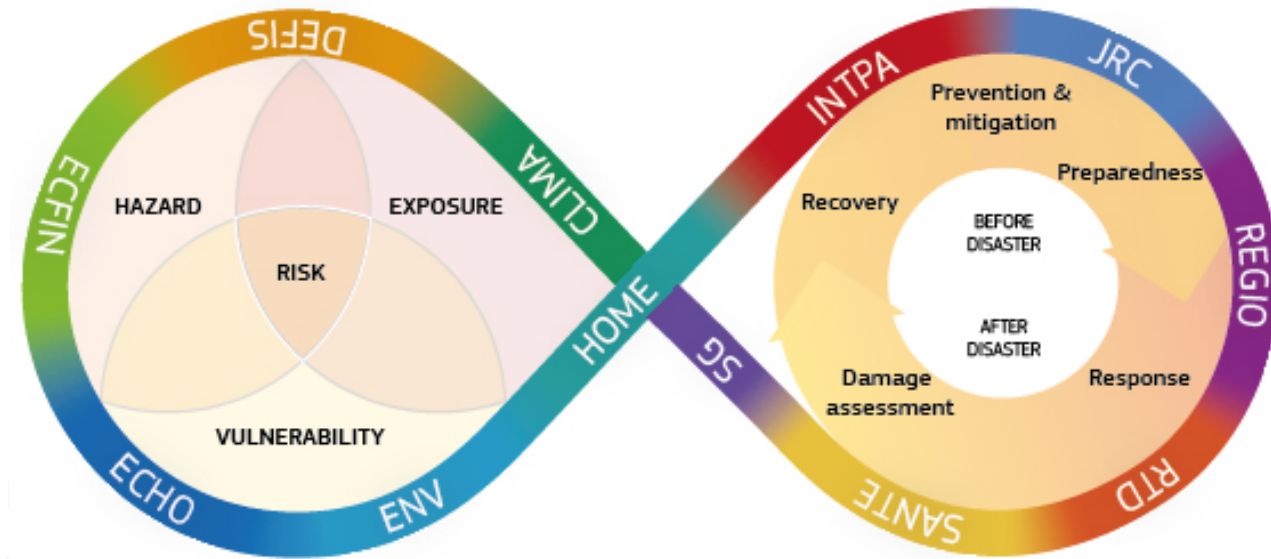
Disaster Risk Management: science & systems

- **Understanding disaster risk**

- Hazards
- Exposure
- Vulnerability and resilience

- **Managing disaster risk**

- Prevention
- Preparedness
- Response
- Damage Assessment
- Recovery

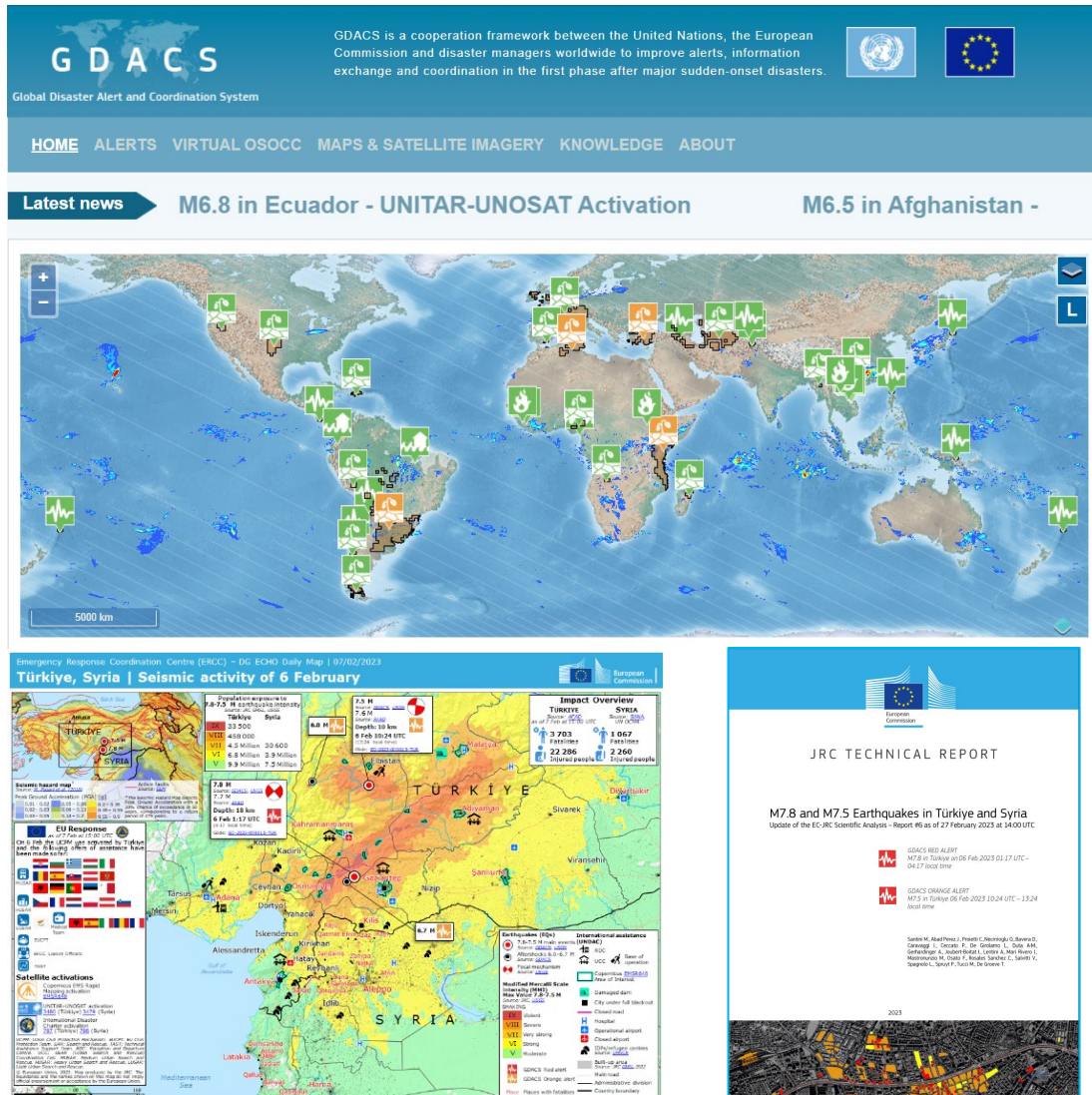


Knowing for managing, our journey around the risk



The Emergency Response Coordination Centre in Brussels. JRC provides systems and scientific support on daily basis to the **Union Civil Protection Mechanism**.

Global Disaster Alert and Coordination System



What is it?

- **Alerts** for earthquakes, tsunamis, cyclones, floods, wildfires, droughts, volcanoes
- **Real-time situation reports and maps** from best scientific data
- 18 year collaboration between EC/JRC, UNOCHA & UNOSAT

What can you do?

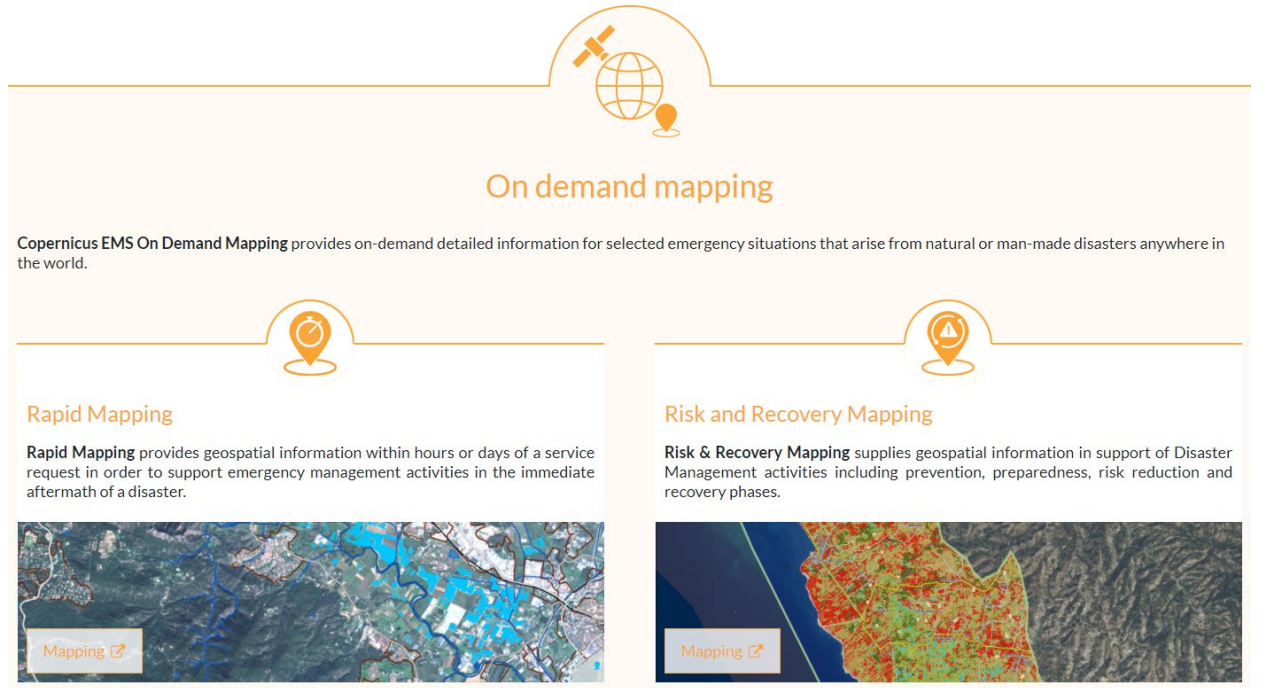
- Register and set up custom alerts
- Download reports and satellite maps
- Get field updates on the Virtual OSOCC

Contacts:

- <https://www.gdacs.org>
- marzia.santini@ec.europa.eu

Copernicus Emergency Management Service

On demand mapping



What is it?

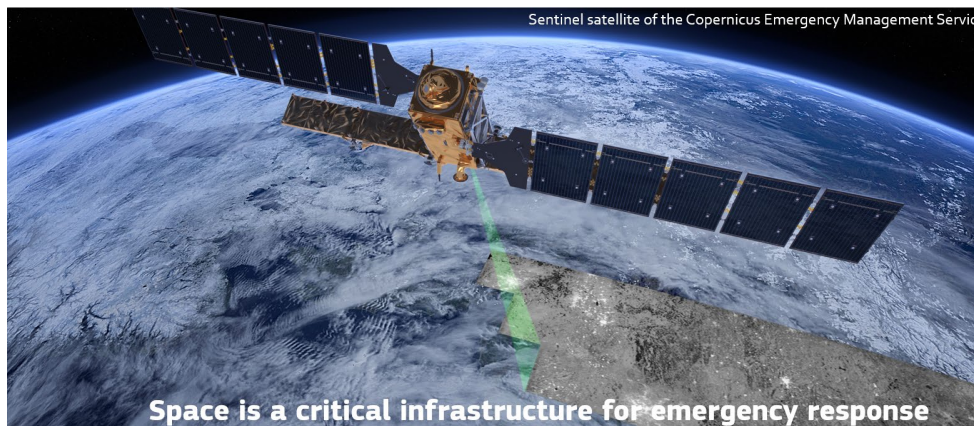
- Satellite-based **maps on request**
- **Rapid Mapping:** immediate aftermath
- **Risk & Recovery:** preparedness or recovery

What can you do?

- Trigger the service on behalf of the local authorities
- Access maps and impact data:
<https://emergency.copernicus.eu/mapping/list-of-activations-rapid>

Contacts:

- <https://emergency.copernicus.eu/>
- jean-francois.pekel@ec.europa.eu



Copernicus Emergency Management Service

Early Warning & Monitoring



What is it?

- **Early warning system** for floods and droughts
- **Monitoring system** for wildfires

What can you do?

- Use the services
- Promote the system with local emergency management authorities
- Download period information bulletins

Contacts:

- <https://emergency.copernicus.eu/>
- peter.salamon@ec.europa.eu

Exposure: Global Human Settlement Layer



GHS-BUILT-S GHS-BUILT-H GHS-BUILT-V GHS-BUILT-C GHS-DUC



GHS-POP GHS-SMOD GHS-LAND GHS-SDATA

What is it?

- **Only free and open data** on built-up area and population, with global coverage from space data
- Trends and statistics on urbanisation, exposure, SDGs

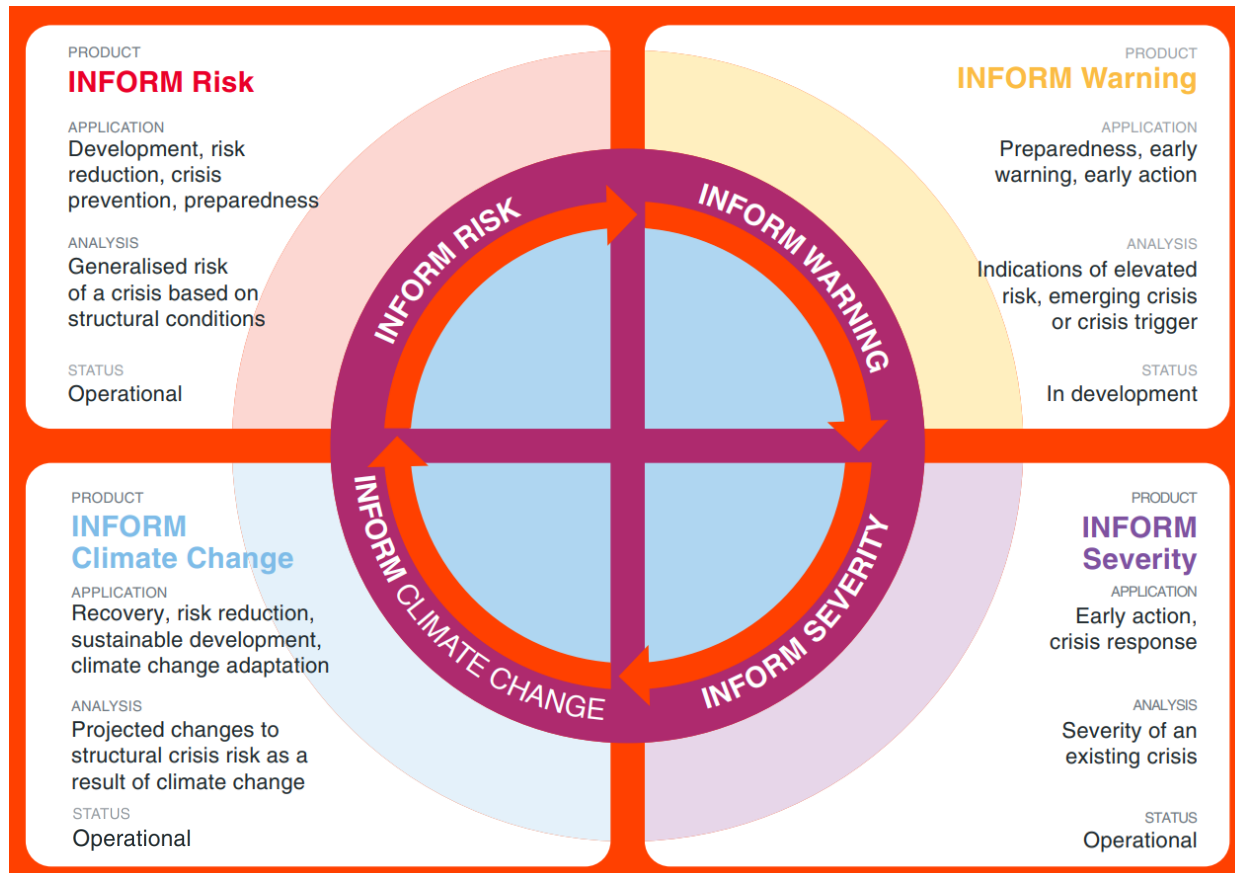
What can you do?

- Promote the data with local authorities, in particular for SDG 11
- Download the layers and analysis products

Contacts:

- <https://ghsl.jrc.ec.europa.eu/>
- thomas.kemper@ec.europa.eu

Humanitarian risk: INFORM



What is it?

- **Risk:** Data-driven risk assessment to identify where and why a crisis might occur
- **Severity:** Measure impact of crises and conditions of people affected
- **Climate Change:** Analyse risk change with climate and socioeconomic projections

What can you do?

- Use the results with partners (UN)
- Promote INFORM under Sendai Framework

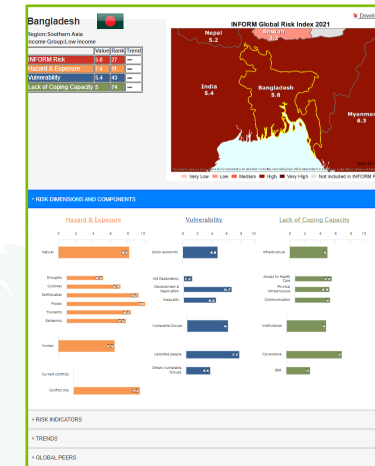
Contacts:

- <https://drmkc.jrc.ec.europa.eu/inform-index>
- karmen.poljansek@ec.europa.eu

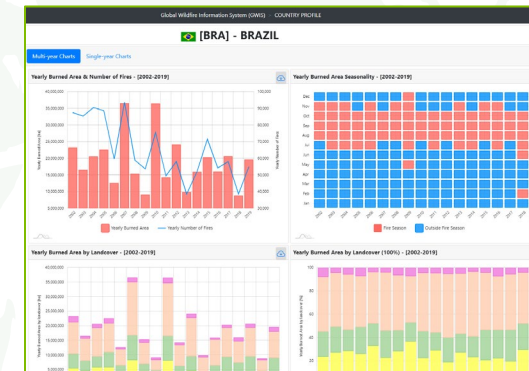
Country fact sheets

- Population and built-up area:
<https://ghsl.jrc.ec.europa.eu/CFS.php>
- Wildfires:
<https://gwis.jrc.ec.europa.eu/apps/country.profile>
- INFORM Risk trends:
<https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk>
- Conflict risk trends:
<https://science4peace.jrc.ec.europa.eu/>

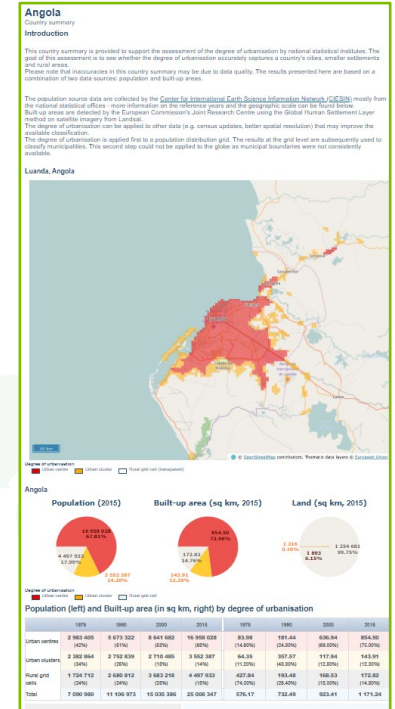
Disaster risk trends



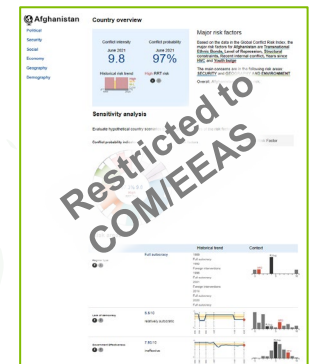
Wildfire statistics and trends



Built-up and population



Conflict risk trends



And much more...

The **Disaster Risk Management Knowledge Centre (DRMKC)** is the Science Pillar of the Union Civil Protection Knowledge Network.

Its goal is working on Disaster Risk Management as ONE European scientific community.

Find out more at: <https://drmkc.jrc.ec.europa.eu/>



Thank you



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