AI to the rescue: Enhancing Disaster Warnings with Tech Tools

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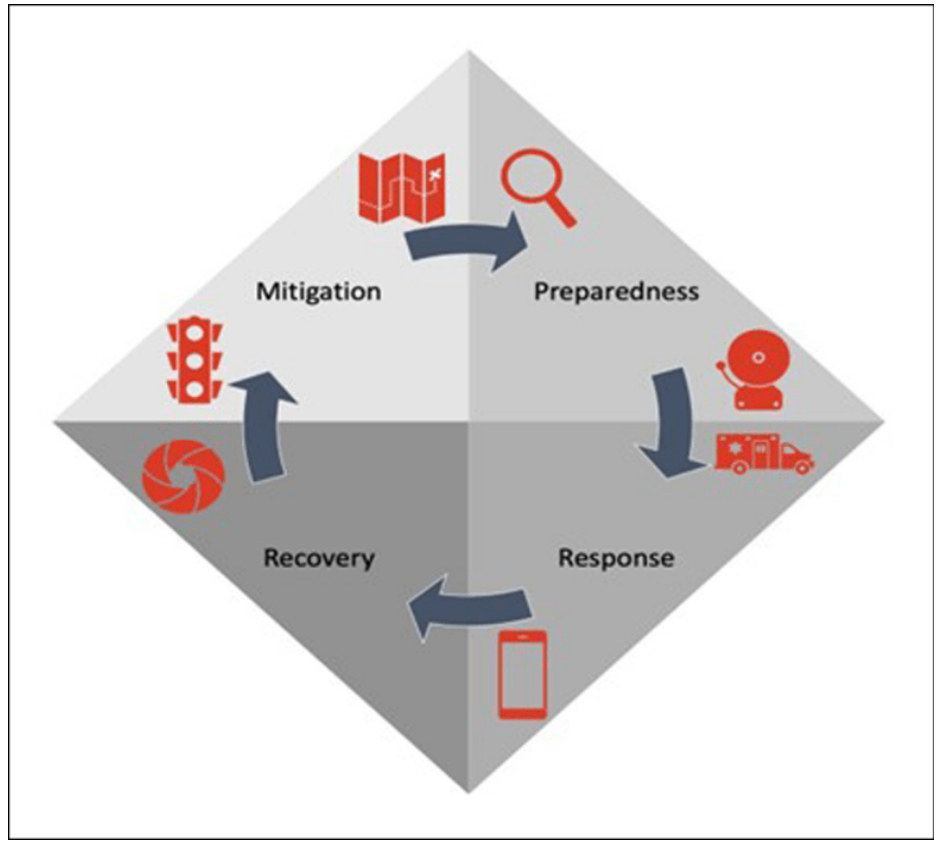
How is AI being used to support disaster management?

Fig. 1. *AI can contribute at each phase of disaster management, from mitigation (e.g., optimizing the location of traffic sensors and providing susceptibility maps), to preparedness (e.g., forecasting or monitoring conditions and triggering alerts), to response (e.g., providing situational awareness and decision support), and into recovery (e.g., damage assessment).*



Kuglitsch, M. M., I. Pelivan, C. Danakkaew, J. Dramsch, and R. Arghandeh (2024), Cultivating trust in AI for disaster management, *Eos, 105,* https://doi.org/10.1029/2024EO240402. Published on 11 September 2024.

What are standards and why do we need them?

Guidelines on how to use **technology**.

Produced by an **international SDO**.

Mandatory by **adoption** into national laws.

AI for Natural Disaster Management

ITU Focus Group

Est. 2020

Community of experts & stakeholders

Systematically evaluating AI use to identify challenges & opportunities

Developing best practices

Supporting capacity sharing

WG-Roadmap

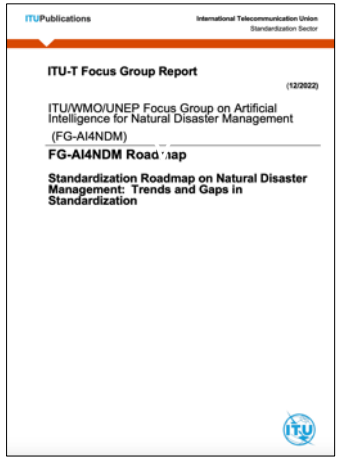
WG-Data

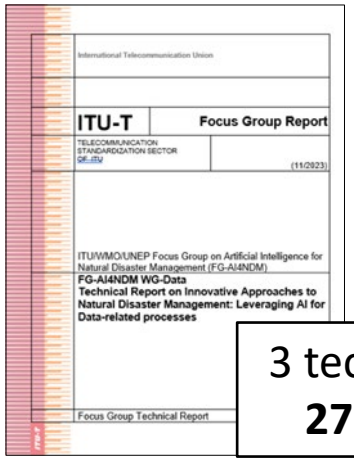
WG-Modelling

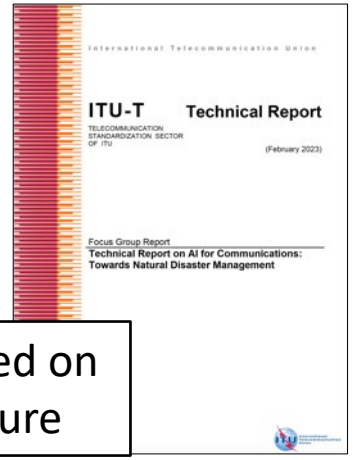
WG-Comms

WS-Glossary

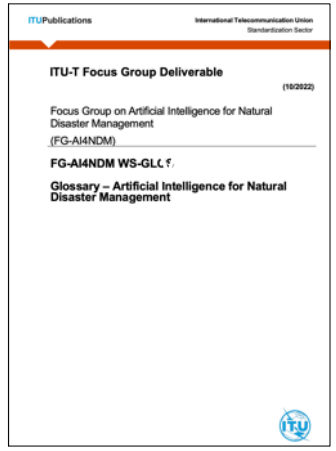
WS-Tools

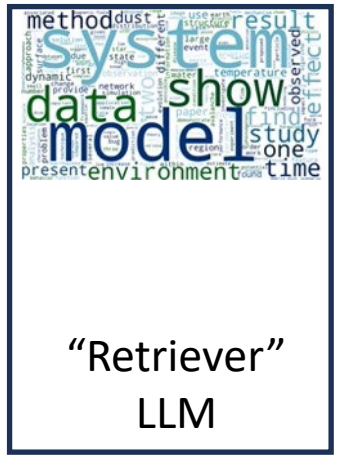






3 technical reports based on
27 use cases & literature

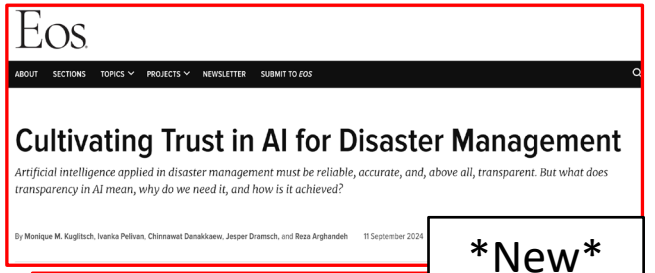




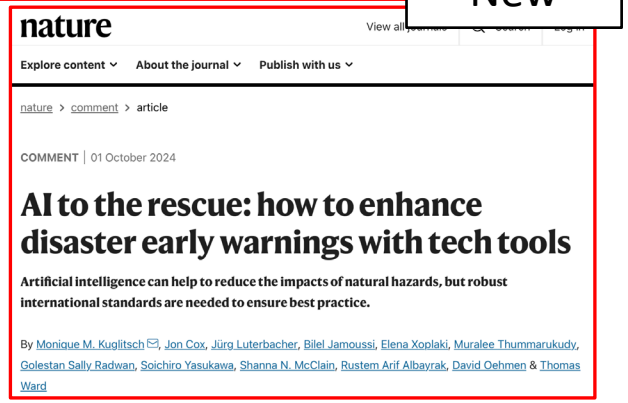
"Retriever"
LLM

WG-EduMat

- workshops/webinars
- hackathons
- training sessions
- scientific publications

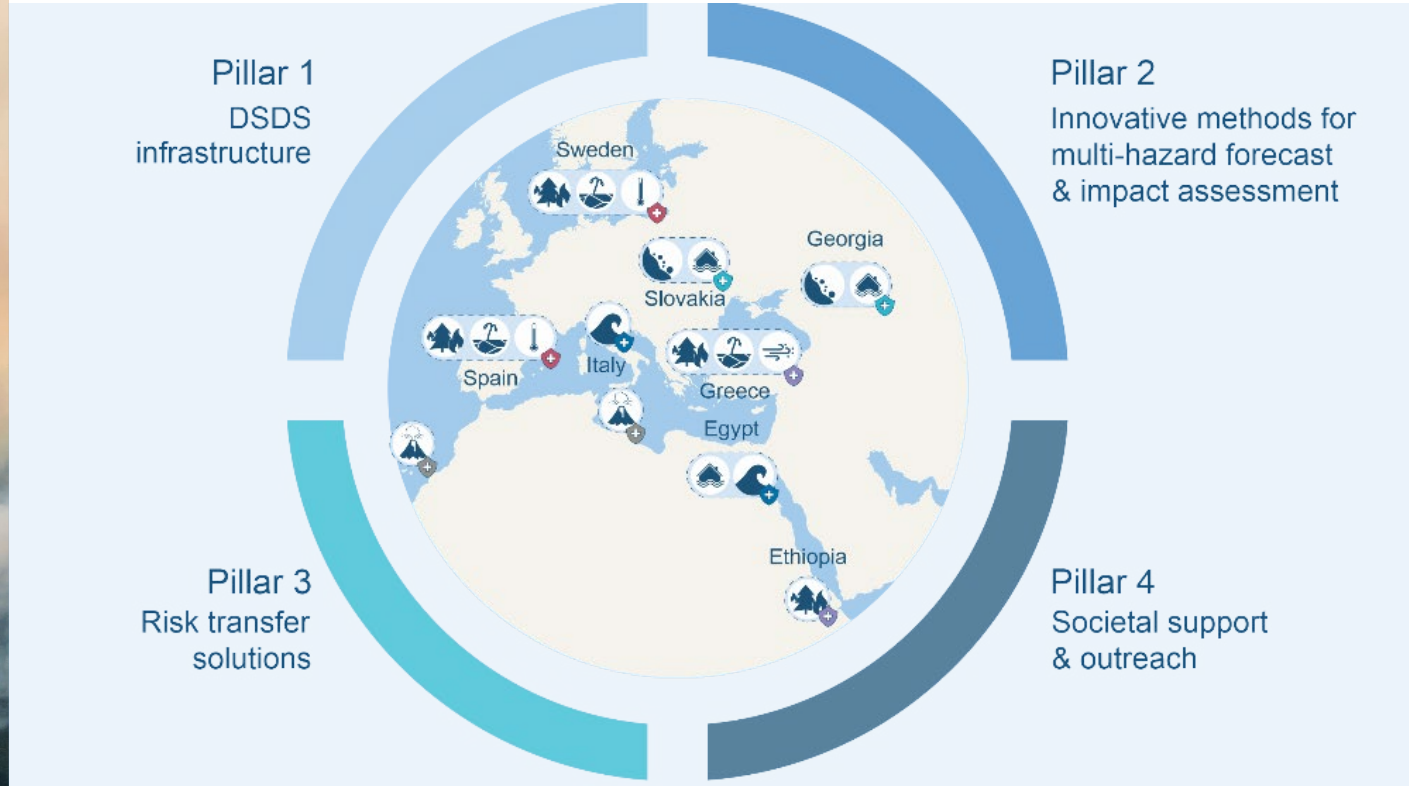


New



Proof-of-concept

Mediterranean and pan-European forecast and early warning system against natural hazards

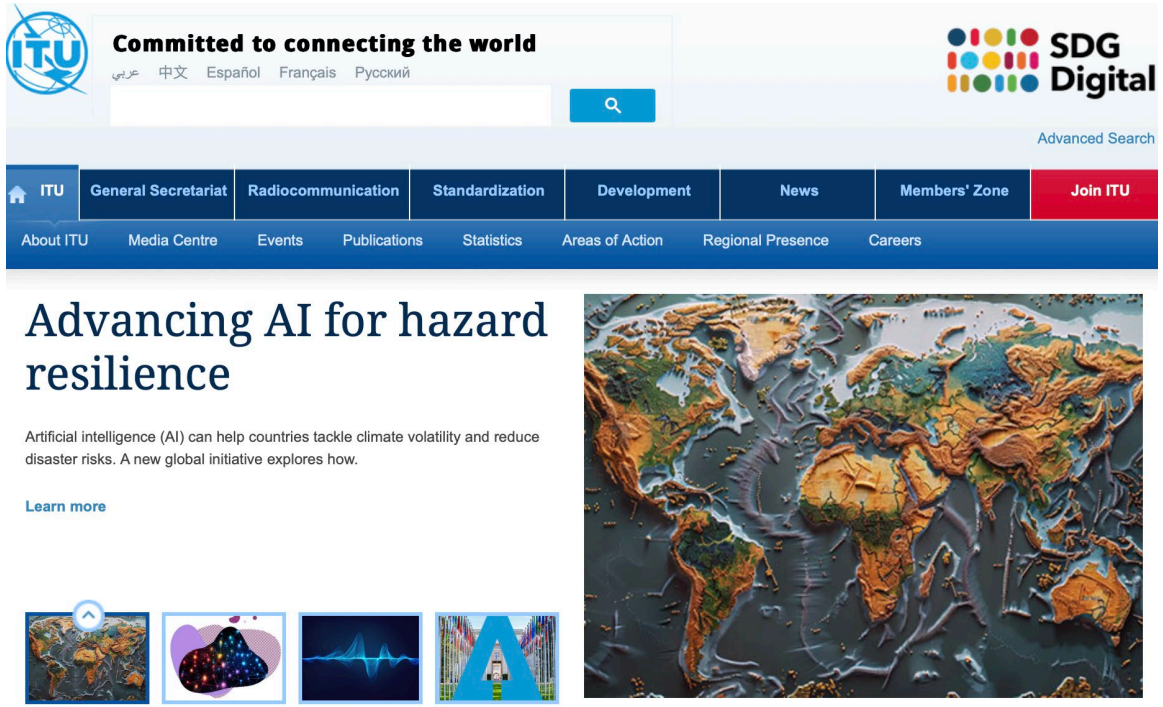


MedEWSa

European Commission

Focus Group -> Global Initiative

*Transition of Focus Group into a Global Initiative announced by the ITU Secretary General during the **AI for Good Global Summit**, June 2024.*

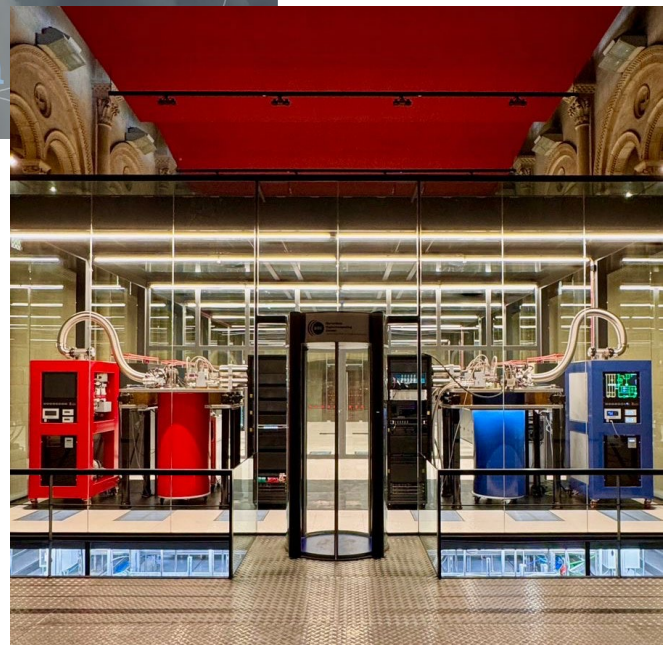


Focus Group -> Global Initiative

Kick-off meeting of the
ITU • WMO • UNEP • UNFCCC • UPU
Global Initiative on Resilience to Natural Hazards through AI Solutions

6 November 2024

Barcelona Supercomputing Center, Spain



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How AI Is Being Used to Respond to Natural Disasters in Cities

7 MINUTE READ

AI was used to identify damage in Adıyaman, Turkey, after last year's earthquake. ILYAS AKENGIN—AFP /Getty Images

BY HARRY BOOTH AND THARIN PILLAY

NOVEMBER 4, 2024 11:01 AM EST

time.com

Focus Group -> Global Initiative

New UN partners — ITU ◆ WMO ◆ UNEP ◆ UNFCCC ◆ UPU

New use cases

New technologies

New best practices

New PoC

New opportunities to support capacity development

COP29 Baku Azerbaijan

Bridging the digital divide: Ensuring inclusive frontier technology for climate action

18 November 2024

Capacity Building Hub, Baku Stadium, Baku, Azerbaijan

Monique Kuglitsch

Elena Xoplaki

Alex Marti

Saman Ghaffarian

Maria João Sousa

Patrick Büker

Lóránt Czárán

Anil Mishra

Tom Wagner

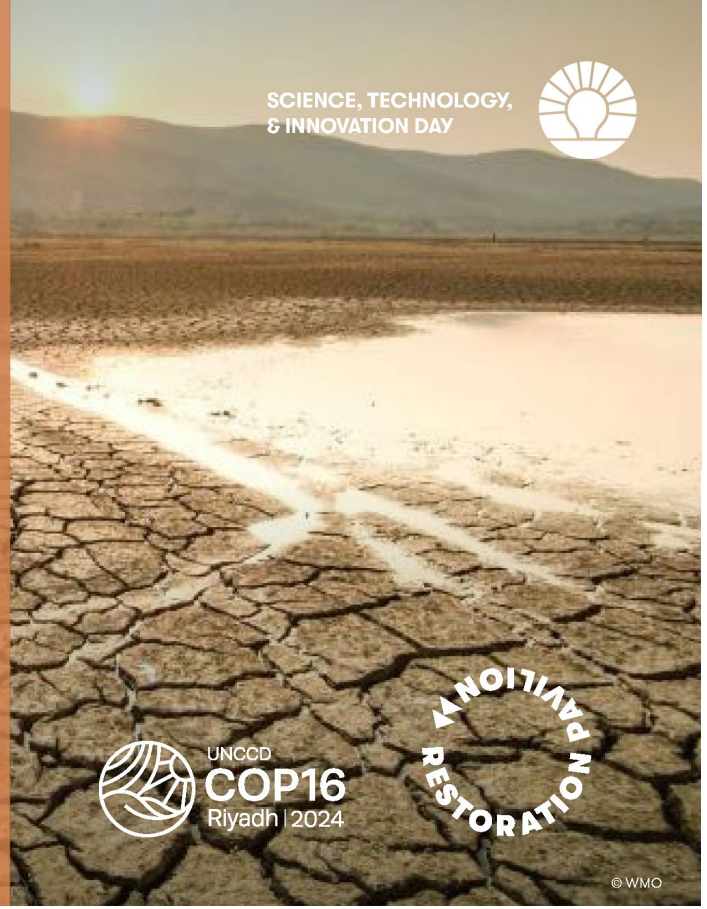
Co-organizers: ITU, WMO, Climate Change AI, Fraunhofer HHI

United Nations Convention to Combat Desertification

G20 GLOBAL LAND INITIATIVE

Digital technologies:

A boon for drought management



Date // **9 Dec 2024**
Time // **10:00-11:00 AST**
Location // Blue Zone, Restoration Pavilion

This workshop delves into the potential of digital technologies like artificial intelligence and digital twins for forecasting, monitoring, and managing drought risks, impacts, and cascading effects within new international initiatives. It also addresses challenges inherent to these technologies, highlighting the need for governance standards. The session includes expert presentations followed by a panel discussion, inviting audience interaction on advancing drought resilience through technological innovation.

Register here: **bit.ly/3AAd4rm**

WORLD METEOROLOGICAL ORGANIZATION
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JUSTUS-LIEBIG-UNIVERSITÄT GIESSEN
CLINT CLIMATE INTELLIGENCE

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Scan to learn more about
the Focus Group
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the Global Initiative
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