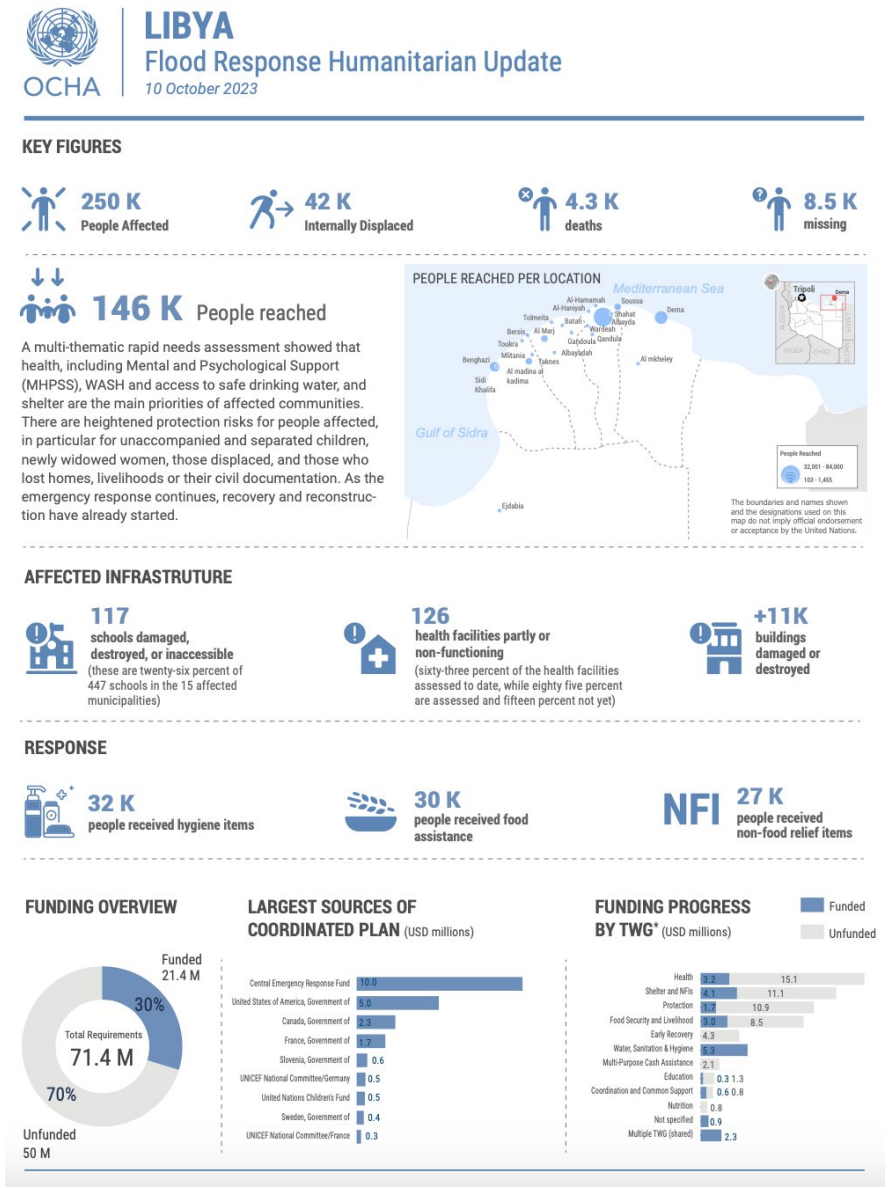
University of Antwerp
ENVECON | Environmental Economics
Research Group Engineering Management

Consensus priorities on allocating forecast-based funding of humanitarian and disaster aid for climate change adaptation: A Delphi study

Jäpölä J-P*, Van Schoubroeck, S., & Van Passel, S.

* The information and views set out in this presentation are those of the author and do not necessarily reflect the official opinion of the European Commission.

Storm Daniel



OCHA

LIBYA
Flood Response Humanitarian Update
10 October 2023

KEY FIGURES

250 K People Affected

42 K Internally Displaced

4.3 K deaths

8.5 K missing

146 K People reached

A multi-thematic rapid needs assessment showed that health, including Mental and Psychological Support (MHPSS), WASH and access to safe drinking water, and shelter are the main priorities of affected communities. There are heightened protection risks for people affected, in particular for unaccompanied and separated children, newly widowed women, those displaced, and those who lost homes, livelihoods or their civil documentation. As the emergency response continues, recovery and reconstruction have already started.

PEOPLE REACHED PER LOCATION

AFFECTED INFRASTRUTURE

117 schools damaged, destroyed, or inaccessible
(these are twenty-six percent of 447 schools in the 15 affected municipalities)

126 health facilities partly or non-functioning
(sixty-three percent of the health facilities assessed to date, while eighty five percent are assessed and fifteen percent not yet)

+11K buildings damaged or destroyed

RESPONSE

32 K people received hygiene items

30 K people received food assistance

NFI 27 K people received non-food relief items

FUNDING OVERVIEW

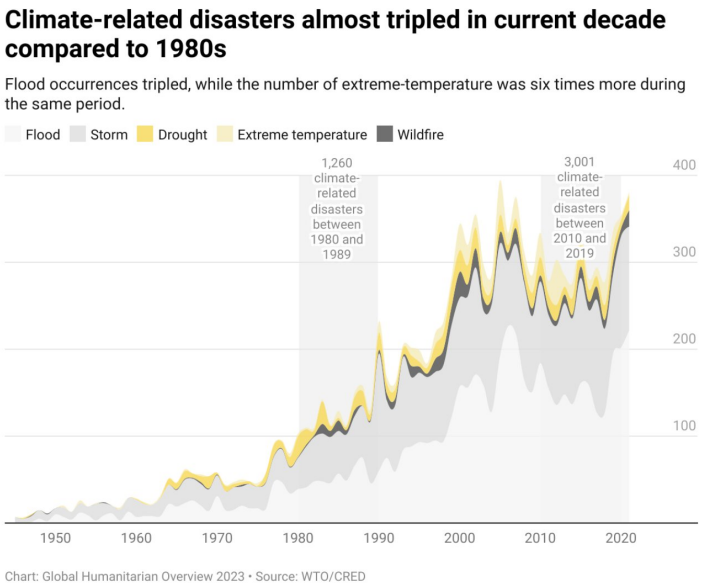
LARGEST SOURCES OF COORDINATED PLAN (USD millions)

FUNDING PROGRESS BY TWG* (USD millions)

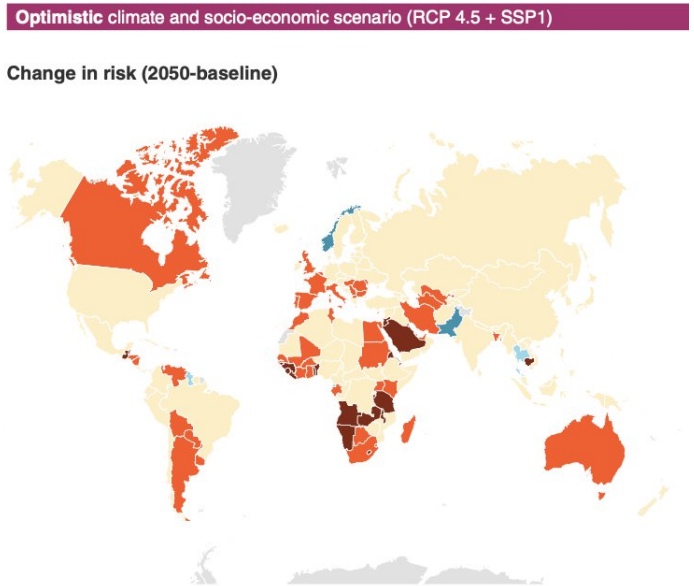
world weather attribution

Problem in a nutshell

Climate-related disasters rising and likely to rise



Vastly different situations projected around the world



How to allocate unearmarked global envelope equitably?

Research design – Delphi and funding simulation

- The literature
  - Better to ask than to assume. (Rising et al., 2022, Lentz & Maxwell, 2022)
  - Weaknesses in damage estimation are a key research area. (IPCC WG2, 2022)
  - Decision maker can be a flawed human with limited cognitive capacity. (Thaler, 1980)

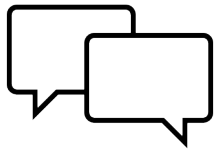
- 2-round Delphi method with funding priority simulation on a 4-point scale
  - **Q1:** What are the priority *criteria* in allocating humanitarian or disaster aid funding per future forecasts in view of climate change response or adaptation?
  - **Q2:** What are the priority *options* for which to allocate humanitarian or disaster aid funding regarding adaptation to representative key risks of climate change?
- Global frameworks, INFORM suite (Q1) and IPCC RKRs (Q2), as a baseline
- Panel (N=36) composition
  - 50/50 gender, 19 countries, IOs (e.g., UN, EU, World Bank, Red Cross Red Crescent), the research sector, the public sector, and civil society (e.g., Save the Children, World Vision). Preference on near-future forecasting, primarily month(s) forward and up to year(s).

Results – Summary of panel priority preferences

High priority **is much more relevant than** ***somewhat low priority*** **during real-life funding allocation processes.**

Priority –	Q1: *Criteria* in allocating humanitarian or disaster aid funding per future forecasts in view of climate change response or adaptation	Q2: *Options* for which to allocate humanitarian or disaster aid funding regarding adaptation to representative key risks of climate change
HIGH PRIORITY	• PEOPLE IN NEED (PIN) PER SEVERITY LEVEL OF THEIR HUMANITARIAN CONDITIONS (INCL. AFFECTED AND DISPLACED) • RISK OF HAZARD AND EXPOSURE TO DISASTERS	• RISK TO FOOD SECURITY • RISK TO HUMAN HEALTH • RISK TO WATER SECURITY
SOMEWHAT HIGH PRIORITY	• CAPACITY OF LOCAL ACTORS AND ON-GOING PROGRAMMING TO RESPOND/ADAPT • INDICATORS ON VULNERABLE GROUPS OR DIVERSITY OF GROUPS AFFECTED	• RISKS TO PEACE AND TO HUMAN MOBILITY
(in between)	• HUMANITARIAN ACCESS INDICATORS • LACK OF INFRASTRUCTURAL COPING CAPACITY	• RISK TO LIVING STANDARDS • RISKS ASSOCIATED WITH CRITICAL PHYSICAL INFRASTRUCTURE, NETWORKS AND SERVICES
SOMEWHAT LOW PRIORITY	• RULE OF LAW INDICATORS AND LACK OF INSTITUTIONAL COPING CAPACITY • SOCIAL COHESION INDICATORS AND SOCIO-ECONOMIC VULNERABILITY	• RISK TO LOW-LYING COASTAL SOCIOECOLOGICAL SYSTEMS • RISK TO TERRESTRIAL AND OCEAN ECOSYSTEMS

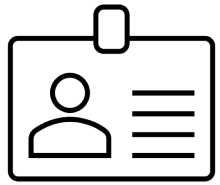
Discussion



- Even a small Delphi size is reliable if they have a similar experience level.
  - Strong consensus based on parametric measures (e.g., SDs < 1)
  - The next phase will be to augment the results with stochastic measures
- Suggests that the results are an emergent preference (covariant)?
  - The diverse panel answered similarly in front of an ensemble of composite criteria or complexly interlinked risks that often overlap.
- Results had nuances
  - **Q1:** Preference for the crisis'/disaster's severity of magnitude and risk, but also, there is a complex interplay between vulnerability, context, practical issues, and resilience.
  - **Q2:** Timewise priority on cascading risks – so panellists focused on the most pressing ones (e.g., food security is pertinent now, but what if the socioecological system falls?).

Thank you!

- Contact if in need of working paper
  - *“Decision-making preferences on funding humanitarian aid and disaster management under climate change”*
  - Juha-Pekka Jäpölä (juha-pekka.jaepolae@uantwerpen.be)
    - University of Antwerp / ENVECON
    - European Commission / DG ECHO



- Image/Graph credits
  - Slide 2: UN OCHA, AFP
  - Slide 3: UN OCHA (via CRED UCLouvain), European Commission, ‘discovermaths’ on YouTube