

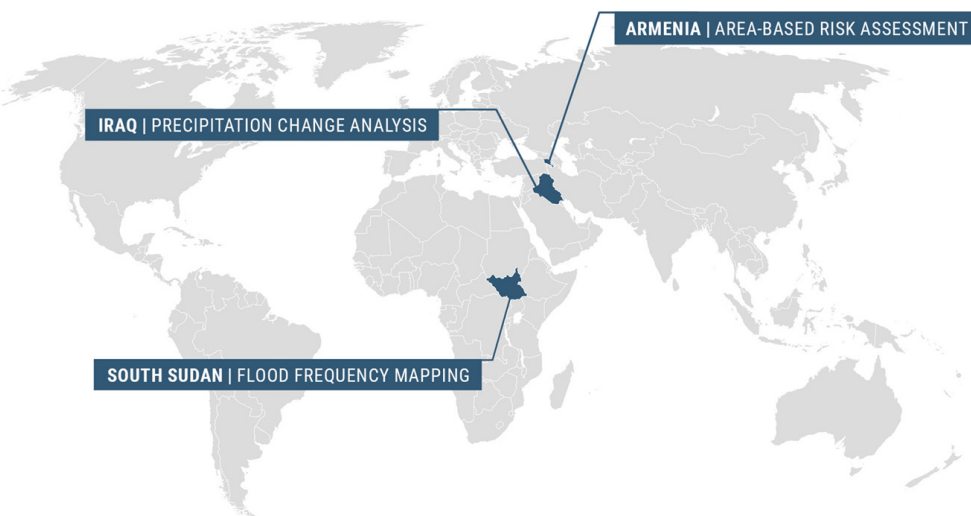
# IMEDIA NOVEMBER 2022 BULLETIN

## Building the evidence base | IMPACT's research on climate change in crisis contexts.

The COP27 climate summit concluded earlier this month, and **opinions are mixed** on whether meaningful progress was made after two weeks of negotiations. One key issue at the forefront for many activists was 'loss and damage' – on the agenda for the first time, an **agreement to operationalise a loss and damage fund** was struck in the final hours of the summit. Proponents of the fund argue that financial redress should be provided to developing countries who are most vulnerable to the adverse effects of the climate crisis. These nations bear the brunt of erratic weather patterns and intensifying environmental disasters, despite having contributed relatively little in terms of global carbon emissions.

In particular, there is growing attention on **conflict and crisis settings**, where the need to mainstream climate adaptation, mitigation, and disaster risk reduction across aid action is no longer a 'nice to have' but a must. In many crises, we are seeing how droughts, floods, and rising temperatures are worsening humanitarian conditions, triggering new cycles of displacement, eroding livelihoods, and contributing to food and water shortages.

Using geospatial analysis and participatory data collection approaches, IMPACT is helping to inform aid actors by generating an actionable evidence base in challenging environments. This month's Media Bulletin provides a roundup of our most recent research.



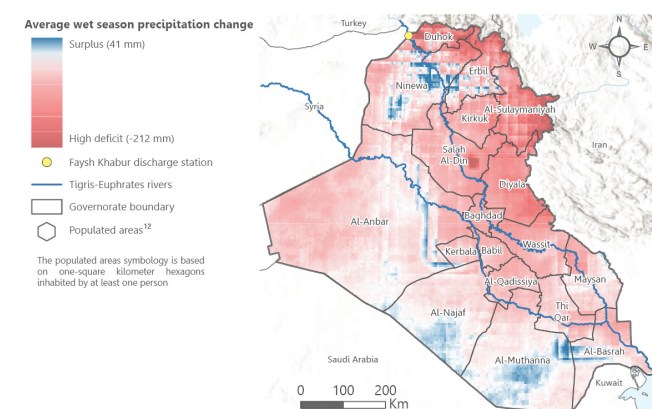
Subscribe to the REACH media bulletin

P.S. Did you find this newsletter through social media? Subscribe below to stay in the loop for future editions.

## IRAQ | Precipitation change analysis

According to the UN's **2019 Global Environment Outlook**, Iraq was ranked 5th amongst countries around the world most vulnerable to the effects of climate change. Reduced rainfall has contributed to significant water access issues, which has eroded longstanding agricultural livelihoods, triggered displacement in search of new economic opportunities, and caused a loss of biodiversity and disruption to ecosystems.

Using earth observation techniques, our team in Iraq produces regular analysis of precipitation change in the country. This involves calculating rainfall deficits based on satellite imagery and remote sensing data, using Google Earth Engine to compare rainfall during the most recent wet season (October to May) against the historical average from 1981-2021.



This analysis found that precipitation deficits were widespread throughout Iraq but highest in the north, historically the region that received the most rain. Because rainwater from the north feeds into rivers in the centre and south, there is a risk of water shortages and deteriorating water quality across the country. In total, the calculated average deficit for the 2021-22 wet season amounts to around 15,000 million cubic meters of water.

### Further reading

- [Precipitation change analysis factsheet \(November 2022\)](#)
- [Climate Motivated Displacement Baseline Report \(April 2022\)](#)

## SOUTH SUDAN | Flood frequency mapping

South Sudan has faced intensifying dry and wet seasons for the past several years, with drought-like conditions followed by severe flooding that exceeded seasonal norms. Recurrent flooding has led to widespread displacement – **over one million people in 2020** – destruction of livelihoods, worsening food security, and contamination of water sources, compounding existing insecurity in many regions of the country.

Our team in South Sudan has been monitoring cyclical drought and flooding patterns for several years, both through interviews with recently displaced people with knowledge of conditions in flood-affected areas, and through remote sensing analysis. The latest analysis of satellite data from 2019-2022 shows that Unity, Warrap, Jonglei, and Upper Nile are the states most affected by multiple years of flooding.

### Further reading

- [2019-2022 flood frequency map \(October 2022\)](#)
- [County resilience profiles, multiple locations \(September 2022\)](#)

## ARMENIA | Area-Based Risk Assessment

IMPACT first deployed to Armenia in response to the 2020 **conflict in Nagorno-Karabakh**. However, the country has faced the threat of environmental and man-made hazards for years, such as earthquakes and fires. Past studies have also indicated the need for disaster preparedness in vulnerable rural communities, especially for the refugee-like population that moved from Nagorno-Karabakh as a result of the hostilities.

IMPACT first deployed to Armenia in response to the 2020 **conflict in Nagorno-Karabakh**. However, the country has faced the threat of environmental and man-made hazards for years, such as earthquakes and fires. Past studies have also indicated the need for disaster preparedness in vulnerable rural communities, especially for the refugee-like population that moved from Nagorno-Karabakh as a result of the hostilities.

Together with our sister organisation ACTED, IMPACT conducted an area-based risk assessment (ABRA) in the mountainous region of Kotayk, where climate change-driven hazards are considered the top disaster risk to the area's residents and their livelihoods. The ABRA utilised open-source geospatial data on hazard exposure, combined with additional analysis of secondary data on vulnerabilities, to identify hazard risk for individual settlements. The assessment found that the risk level and potential impact of hazards was different depending on the individual settlement, due to variation in coping capacity, adaptive capacity, and susceptibility.

### Further reading

- [Kotayk Area Based Assessment report \(August 2022\)](#)

As an organisation, we believe that only a free, transparent, and open-access to our information products can yield an evidence-based understanding of the crisis we are working on from all stakeholders involved.

To organise your research efficiently, the **REACH Resource Centre** allows you to filter through our reports and fact-sheets depending on which country you want information on. If you are interested in a wider theme within humanitarian responses, we've got you sorted there too.

Topics range from Food Security, Mixed Migration, Humanitarian Situation Monitoring, and much more. The advanced search also allows you to target your search even further by date, type of crisis, and through keywords.

COUNTRY	THEME	TYPE OF INFORMATION PRODUCT
TYPE OF CRISIS	RESEARCH CYCLE	MARKETING OPPORTUNITY
DATE RANGE	INITIAL PUBLISHED	LANGUAGE
KEYWORDS		
<input type="button" value="SEARCH"/> <input type="button" value="RESET"/>		

The REACH Resource Centre has a built-in functionality which enables all **users to subscribe to a mailing alert system**.

### How does it work?

Every user can select exactly what country they are interested in receiving updates on, further narrowing their interests by theme, or even type of information product. Subscribed users will then receive an e-mail directly to their inbox whenever an information product is published in line with their interests.

Access the REACH Resource Centre

REACH facilitates the development of information tools and products that enhance the capacity of aid actors to make evidence-based decisions in emergency, recovery and development contexts. All REACH activities are conducted through inter-agency aid coordination mechanisms. REACH is a joint initiative of IMPACT, its sister-organisation ACTED and the United Nations Operational Satellite Applications Programme UNOSAT.