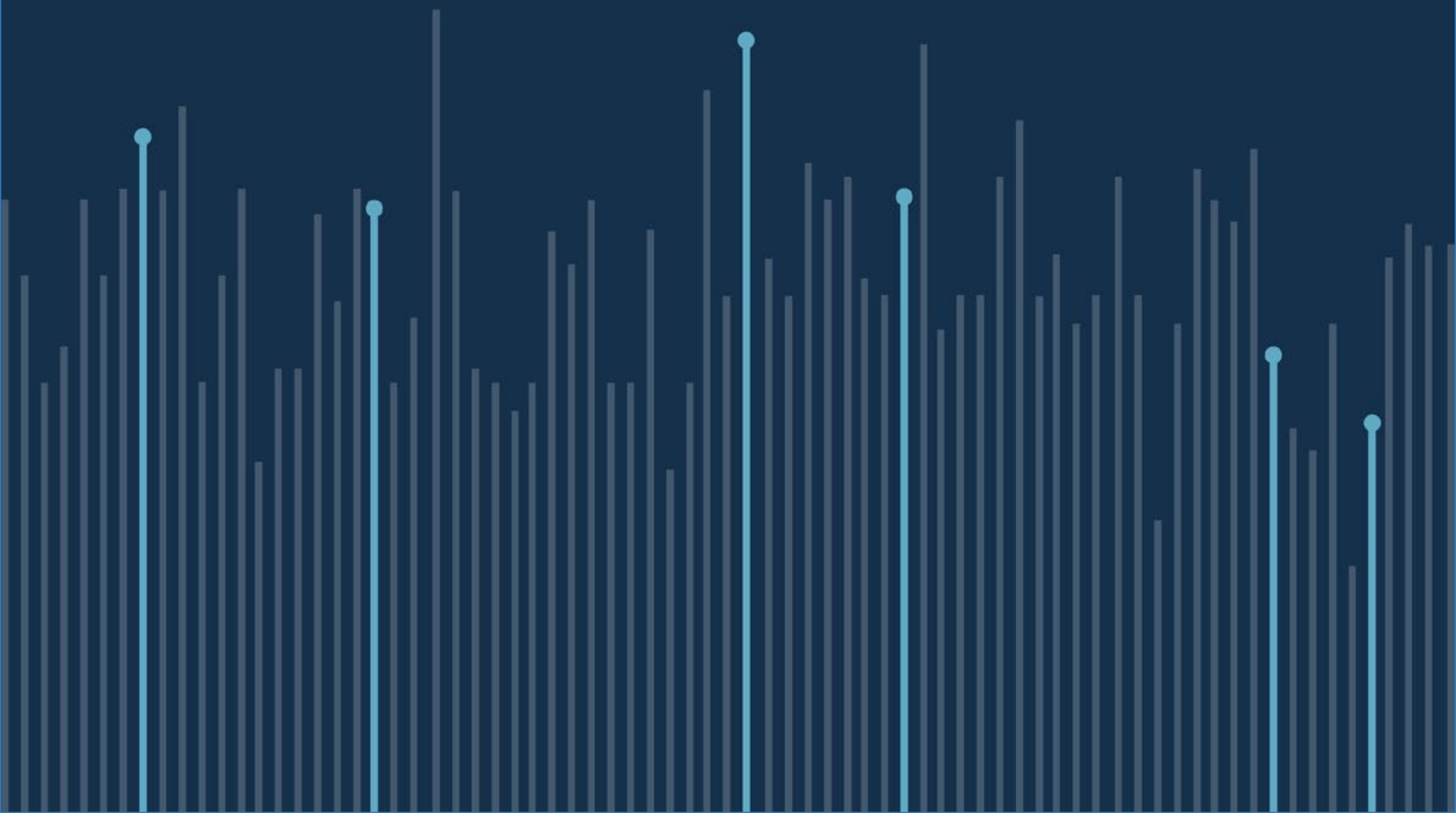
OCHA | centre for humdata | HDX

# THE STATE OF OPEN HUMANITARIAN DATA 2026

## Assessing data availability across humanitarian crises



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**ACKNOWLEDGEMENTS**

This report was produced in March 2026 by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) Centre for Humanitarian Data, which manages the Humanitarian Data Exchange (HDX) platform. OCHA thanks all of the organizations that have shared data through HDX, the donors who have supported this work, and the HDX users who are committed to ensuring that humanitarian response is data driven. For additional information, contact the Centre for Humanitarian Data at centrehumdata@un.org.

# List of abbreviations

| | |
|---|---|
| **ACLED** | Armed Conflict Location & Event Data |
| **AER** | Atmospheric and Environmental Research |
| **AI** | Artificial Intelligence |
| **ASAP** | Anomaly Hotspots of Agricultural Production |
| **CERF** | Central Emergency Response Fund |
| **CHIRPS** | Climate Hazards Group InfraRed Precipitation with Station Data |
| **CODs** | Common Operational Datasets |
| **FAO** | Food and Agricultural Organization of the United Nations |
| **FSNWG WA** | Food Security and Nutrition Working Group West and Central Africa |
| **FTS** | Financial Tracking Service |
| **HDX** | Humanitarian Data Exchange |
| **HNRP** | Humanitarian Needs and Response Plan |
| **HOT** | Humanitarian OpenStreetMap Team |
| **IASC** | Inter-Agency Standing Committee |
| **IDP** | Internally Displaced Person |
| **IOM** | International Organization for Migration |
| **IPC** | Integrated Food Security Phase Classification |
| **JRC** | Joint Research Centre of the European Commission |
| **MIMU** | Myanmar Information Management Unit |
| **OCHA** | United Nations Office for the Coordination of Humanitarian Affairs |
| **OPHI** | Oxford Poverty and Human Development Initiative |
| **PCBS** | Palestinian Central Bureau of Statistics |
| **UN** | United Nations |
| **UNHCR** | United Nations High Commissioner for Refugees |
| **UNFPA** | United Nations Population Fund |
| **WFP** | World Food Programme |

# 1. Introduction

The past year has been a tumultuous one for the sector with unprecedented funding cuts impacting the scale and scope of humanitarian operations. The consequences for humanitarian data were unclear but the analysis in this report now shows that short-term mitigation measures and rapid reprioritization resulted in only a marginal decrease in data availability across crises.

Based on analysis of the Humanitarian Data Exchange (HDX) Data Grids, we estimate that 68 percent of crisis data is available and up-to-date across 22 humanitarian operations, down from 74 percent in the previous year. Conversations with partners suggest the consequences of funding reductions will likely become more pronounced in 2026, as organizations adapt to this new reality.

Through the UN80 Initiative and the Humanitarian Reset, there is an opportunity to consolidate and refocus data efforts. Data has a central role to play in a revitalized humanitarian system – one that delivers more effectively and builds trust in multilateral action. It is a core asset that should be managed, with appropriate safeguards, as a public good in service of saving lives. The HDX platform has an important role to play in making critical data easy to find and use for the analysis that informs decision making in humanitarian operations.

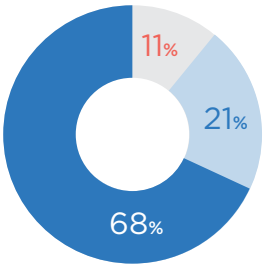
## Assessing data availability

Our insights into data availability and use come from managing HDX, an open platform for finding and sharing data across crises and organizations. In 2025, HDX was used by millions of people in 237 countries and territories. The platform's almost 20,000 datasets were downloaded 3.4 million times, sustaining last year's record high.

The HDX Data Grids assess a foundational set of data that is critical to understanding a humanitarian context. They provide a comparable way to assess data availability across locations and categories and are the basis for the analysis in this report. Although HDX covers data about all countries, the Data Grids focus on locations with humanitarian needs and response plans (HNRPs).[1]

The 22 Data Grids include 411 unique datasets, with a range of 16-26 datasets per location. Datasets included in the Data Grids were downloaded almost four times more than the average dataset on HDX. The top Data Grid locations, based on dataset downloads, are Ethiopia, Nigeria and Yemen; administrative divisions and internal displacement are among the most popular datasets across all Data Grids.

This report contains details on the data available for each location, category and sub-category covered in the Data Grids as of 31 December 2025.[2] In addition, we explore changes in data availability both through the Data Grids and from conversations with our partners. We explain the impact of AI bots on web traffic and Open Data platforms. Finally, we take a closer look at the organizations that contribute climate hazards data on HDX.




TOTAL PERCENTAGE AVAILABLE AND UP-TO-DATE DATA

68%

TOTAL PERCENTAGE AVAILABLE AND NOT UP-TO-DATE DATA

21%

TOTAL PERCENTAGE UNAVAILABLE DATA

11%

Data availability: Available and up-to-date | Available and not up-to-date | Unavailable

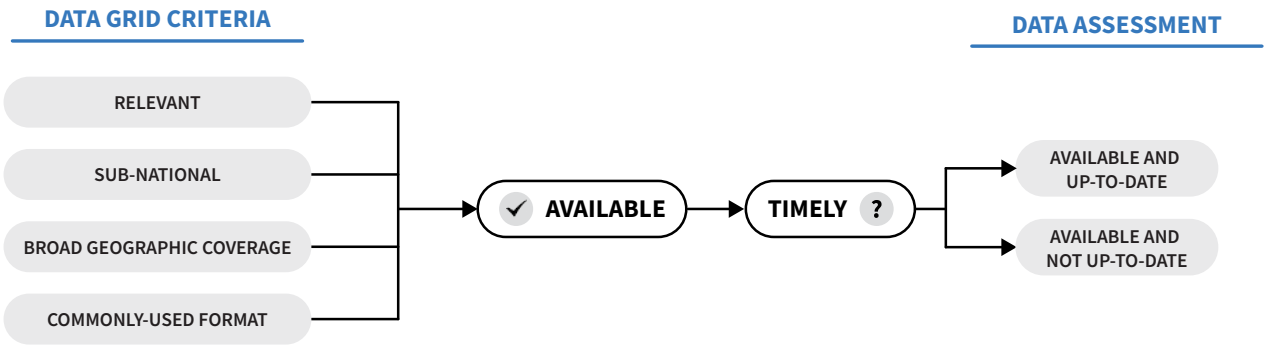
1. HNRPs are prepared by UN Humanitarian Country Teams in locations where there is an ongoing humanitarian emergency. HNRPs are generally prepared annually, and outline an overall strategy and specific activities for each humanitarian cluster or sector. For 2025, the 22 Data Grid locations include 20 HNRPs, one Flash Appeal, and Ethiopia.
2. Some flexibility was given to the cut off date if the data was available at the country level but had not been shared publicly on HDX.

## Data Grid criteria

In 2025, HDX maintained Data Grids for 22 locations, six categories and 20 sub-categories. The six categories include: affected people; coordination and context; food security, nutrition and poverty; geography and infrastructure; health and education; and climate. (See Annex A for definitions.)

Data may be included in a Data Grid if it is relevant to the sub-category, is sub-national, has broad geographic coverage, and is shared in a commonly-used format. If a dataset on HDX meets these criteria, data for the sub-category is considered available.

Once a dataset is considered available, we then assess its timeliness. We make a distinction between whether the data is up-to-date or not up-to-date, based on the update frequency set by the contributing organization. Data is considered unavailable if it does not meet the above criteria or it has not been shared on HDX. (See Annex B for the Data Grid criteria and curation process.)



# 2. Key messages

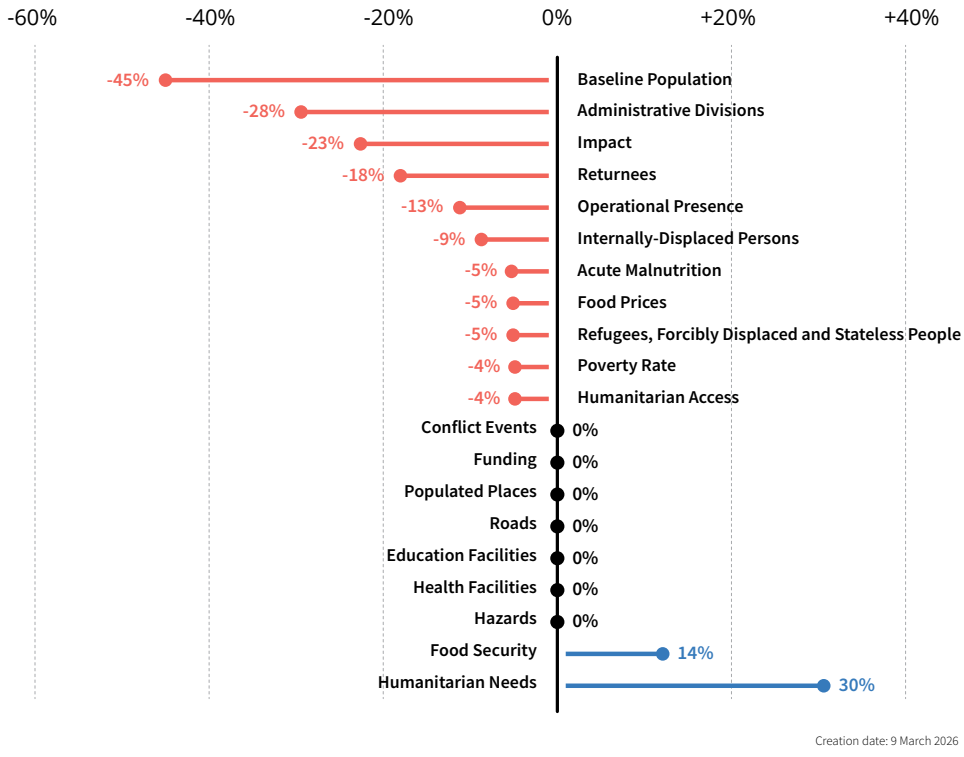
- The past year has been a **tumultuous one** for the sector with unprecedented funding cuts impacting the scale and scope of humanitarian operations. The consequences for humanitarian data were unclear but the analysis in this report now shows that short-term mitigation measures and rapid reprioritization resulted in only a **marginal decrease in data availability relative to the level of cuts**.
- Based on analysis of the HDX Data Grids, we estimate that **68 percent of crisis data is available and up-to-date across 22 humanitarian operations**, down from 74 percent in the previous year. Where the timeliness of data worsened, this can be attributed to process slowdowns, resulting from capacity constraints and the abrupt loss of third-party support.
- While **primary data collection continued, partners prioritized the most severe crises, directing limited staff capacity toward those contexts**. Within these locations, they focused on targeting the most severe areas and addressing agreed data gaps. This continuation was critical given the host of planning processes that rely on primary data, such as the Joint Interagency Assessment Framework, the Integrated Food Security Phase Classification (IPC) and West Africa's Cadre Harmonisé.
- Research institutions and the private sector play an important role in providing weather-related data that is critical for anticipatory action and rapid impact assessments. Over a dozen organizations now share **climate data** through HDX, providing scientific and technical expertise that complements humanitarian knowledge. The availability of this data was stable year-on-year proving the **value of building partnerships beyond the sector**.
- The ramifications of the funding cuts in 2025 are likely to be felt more acutely in the year ahead. In conversations with partners, **many anticipate that the humanitarian data footprint will shrink in 2026**, with fewer surveys, smaller samples, and entire geographies going unmonitored. This reduction in geographic coverage will make it difficult for humanitarians to reliably identify emerging hotspots or rapidly respond to new or deteriorating crises, particularly in non-HNRP countries.
- Data has a **central role to play** in a revitalized humanitarian system – one that delivers more effectively and builds trust in multilateral action. It is a core asset that should be managed, with appropriate safeguards, as a **public good** in service of saving lives.
- The **UN80 Initiative and the Humanitarian Reset** are opportunities to consolidate and refocus data efforts across agencies and align our ambition for data as a key driver of humanitarian action. This moment requires us to find efficiencies and new ways of working, reducing friction in how data is shared and used. Together, we need to define core data, agree on common standards and find ways to **do better with less**.
- The HDX platform plays an important role in bringing humanitarian data together across crises and organizations. In 2025, the platform's almost **20,000 datasets were downloaded 3.4 million times**. The Humanitarian Reset presents an opportunity to **scale what works** – HDX will continue to evolve, providing humanitarians with the data they need to build a common operating picture and deliver an impactful response.
- The story of Sauti, a non-governmental organization in East Africa, is a great example of the Reset in practice. The Sauti team generates insights from trusted datasets on HDX for local farmers and traders, covering market prices, exchange rates, food security and climate data, turning **globally-available data into locally-led action**.
- Beyond the humanitarian sector, the rollout of Large Language Models from global tech giants has changed the digital landscape. The rise of AI bots fueled by these models has created **new challenges for accurately assessing data use** from websites such as HDX. Managing bot identification and platform safety will require a strategic reallocation of resources toward infrastructure and specialized skillsets, ensuring our platforms remain **human-first but AI-ready**.
- We call on governments and partners to **continue investing in the data that underpins crisis response**. Where possible, **collective financing** should be used to fund the **common data services** that the sector relies on.

# 3. Capturing changes in data availability

In 2025, eleven out of the twenty sub-categories in the Data Grids saw some year-on-year decline in the availability of up-to-date humanitarian data. This result broadly aligns with the risks to data availability that we laid out in last year's report,[3] based on the funding cuts that had been announced and their potential impact on data management efforts. Overall, the Data Grids show a marginal decrease in availability relative to the level of cuts. This was achieved through implementation of short-term mitigation measures and the prioritization of data activities in HNRP locations.

The most heavily impacted sub-categories were baseline population and administrative divisions, with a 45 percent and 28 percent reduction in year-on-year availability respectively. These declines in data availability can be attributed to process slowdowns, resulting from capacity constraints. The decline in baseline population reflects the rapid reduction in the capacity of UNFPA to process new updates for the latest population data. Administrative divisions were impacted by the loss of third-party support in early 2025, requiring a replacement process to be established by already stretched teams to validate and publish this data.

### Percent change in available and up-to-date data by sub-category (2024-2025)




By the end of the year, we saw declines across four sub-categories that rely on primary data collection, with returnees dropping by 18 percent, IDPs by 9 percent, acute malnutrition by 5 percent, and food prices by 5 percent. Returnees data has become out of date in locations, contributing to an 18 percent drop in availability. The decline in IDP data can be attributed to the lack of data for Ethiopia and the State of Palestine.

A small group of sub-categories remained stable, with no year-on-year change. Populated places, roads, education facilities, and health facilities remain both available and up-to-date, owing to the satellite-derived, crowd-sourced model used by the Humanitarian OpenStreetMap Team. In the climate category, hazards mostly remained stable, while climate impact data declined by 23 percent, driven by an increase in both unavailable and out of date data.

3. https://centre.humdata.org/risk-to-data-availability-in-2025

Food security and humanitarian needs showed a positive change of 14 and 30 percent respectively. The food security sub-category includes acute food insecurity data from IPC and Cadre Harmonisé. In 2024, delays to the publication of the Cadre Harmonisé data for West African countries negatively impacted availability, whereas, in 2025, the data was published on time. This accounts for the significant rise in data availability.

For humanitarian needs, the increase can be attributed to the hyper-prioritization under the Humanitarian Reset, resulting in a stronger focus on lightening the process and earlier availability of this data than in past years. Four locations – Ethiopia, Palestine, Myanmar and Venezuela — are not included in the calculation of availability because the data is not produced or too sensitive to share.

## Beyond the Data Grids

Recognizing the scale of disruption faced by the sector in the last year, we worked with data partners and country offices throughout the year to understand how funding cuts were impacting data capacity. This qualitative analysis has allowed us to capture changes that would otherwise be hard to quantify.

Disruption to data activities varied by country and organization, influenced by donor priorities and funding diversity. Emergency measures allowed many organizations to continue to deliver data activities through 2025. Several were able to stave off disruption by freezing vacancies and postponing lay-offs until later in the year, although this was not the case for project-based activities which were cut immediately.

The rapid reprioritization of resources ensured data collection could continue in many HNRP locations. For example, for the IPC, partners prioritized the most severe crises for food security analysis and directed limited staff capacity toward those contexts. This prioritization coincided with a devastating year for food insecurity. In 2025, the IPC classified famine conditions in Sudan and the Gaza Strip. For the first time since the IPC was created more than 20 years ago, two famines were declared.

From our conversations, we understand that data collection and analysis in the most severe crises continued. This was achieved by reducing the frequency of data collection, limiting geographical coverage and using less resource-intensive methods. For example, in 2025, WFP monitored food prices and markets in a similar number of locations as in 2024, but in-person verification fell, with enumerator visits dropping by approximately one third.[4] For REACH, the number of Multi-Sector Needs Assessments (MSNAs) decreased from 16 to 14 year-on-year. In 2025 about half of the MSNAs conducted by REACH covered the whole country. In the remaining contexts, MSNAs covered a part of the crisis, focusing on the most severe areas and addressing data gaps.

**South Sudan:**

Group work for an IPC acute food security analysis in South Sudan.

Photo credit: IPC 2024

4. www.cgdev.org/blog/coming-humanitarian-data-drought

In Sudan, IOM was forced to cancel contracts for more than 100 enumerators. Displacement data collection was disrupted, undermining the MSNA, until emergency funding was secured. For UNHCR, refugee registration systems slowed, with longer waiting periods and fewer people being registered.

Many of the staffing reductions postponed in 2025 have now been actioned. At the beginning of 2026, UNHCR and IOM reported reductions of around 40 percent in data-related staff, while OCHA reduced its information management capacity in field offices by around 25 percent. In some contexts, networks of enumerators and key informants built over many years have been disbanded.

Looking to 2026, IOM indicated that data collection in Somalia, for instance, is expected to be reduced to four or five locations, compared with nationwide coverage in 2024. A similar approach is being taken in the Democratic Republic of Congo, Ethiopia, and Mozambique.

**Mozambique:**

IOM Displacement Tracking Matrix staff conducting the Mobility Tracking Assessment in Corrane resettlement site.

Photo credit: IOM 2024 /Gerson Fanequiço

These ramifications will go beyond the humanitarian sector. Reductions to UNHCR's capacity will put pressure on their statistical work. UNHCR provides socioeconomic data on refugees to governments and development actors; without adequate resources, government-led solutions that rely on this data may be undermined.

To continue to operate in this financial climate, organizations have been forced to scale back their operational presence. Particularly pronounced pullbacks have been seen in Southern Africa, Latin America and the Caribbean. This reduction in geographic coverage will make it difficult for humanitarians to reliably identify emerging hotspots or rapidly respond to new or deteriorating crises, particularly in non-HNRP countries.

For example, WFP announced they will close the Southern Africa regional office and consolidate with the East African regional office.[5] While the region has not traditionally experienced high levels of food insecurity, the 2024 El Niño shock pushed several countries into states of emergency. When similar climatic shocks occur in the future, reduced assessment capacity could delay the identification of needs and jeopardize timely, life-saving assistance.

This past year was defined by short-term mitigation measures, with humanitarian actors working under pressure to continue data activities. Conversations with partners suggest the consequences of funding reductions will likely become more visible in 2026, as organizations adapt to their smaller size and endeavour to do better with less through improved processes and use of advanced technologies.

5. www.reuters.com/world/africa/uns-food-agency-wfp-closes-southern-african-bureau-bloomberg-news-reports-2025-03-03

# 4. Web traffic, AI bots and Open Data

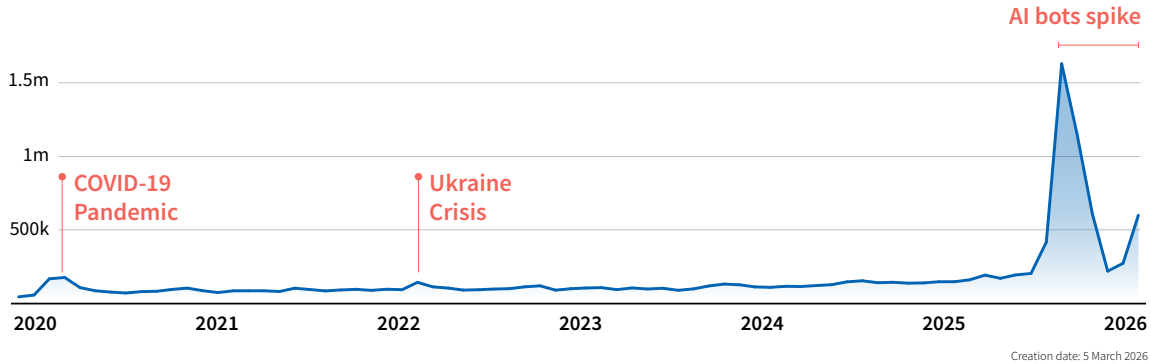
Although this report assesses the availability of data, we also want to understand its use, which is primarily measured through Internet traffic to websites such as HDX. Over the last year, the rise in AI bots – software applications that perform automated tasks – has created new challenges for accurately assessing data use.

Global web traffic has steadily increased over time, but the past year saw unprecedented spikes driven largely by a surge in automated activity. This includes verified and unverified bots and crawlers that are used to train models, retrieve content and perform user-directed tasks. While overall Internet traffic grew by 19 percent globally in 2025,[6] AI-bot and crawler traffic almost quadrupled, climbing from 2.6 percent of verified bot requests in January to more than 10.1 percent by the end of the third quarter.[7]

According to web analysts, this spike was primarily fueled by the aggressive rollout of Large Language Models (LLMs) from global tech giants, such as OpenAI's ChatGPT, Anthropic's Claude and Google's Gemini, among others. To support these launches, companies deployed bots to 'crawl' the live web for fresh training data and real-time response generation. Over 25 percent of these bots are attributed to Google alone, signalling what some experts have called a 'bot war' between the various tech companies and content owners for fresh content. Models released late in the year introduced autonomous web navigation (where the bots navigate the web without human oversight), enabling them to execute multi-step tasks across the Internet on behalf of users. This makes them harder to distinguish from humans, skewing web analytics and masking real user behavior.

The impact of this bot activity was not distributed equally across the digital landscape. For the first time, civil society and nonprofits surpassed financial institutions as the most targeted sector for cyberattacks. Ultimately, it appears that organizations categorized under 'People and Society' (including humanitarian organizations) bore the brunt of AI bot activity throughout 2025.[8]

### Unique Users on HDX from 2020 to 2026




The AI Bot spike in traffic to the HDX platform in mid-2025 far exceeded previous spikes.

### How this shows up on HDX

HDX was no exception to these trends. In alignment with global Internet traffic, which spiked in August 2025, traffic to HDX rose throughout 2025 and accelerated into a significant peak in the second half of the year (see chart above). HDX managed periodic surges in server demand that reached 20–30 times baseline levels. Notably, even after rigorous security filtering, the platform maintained a four times year-over-year increase in unique pageviews compared to 2024.

The HDX team was forced to manage this unprecedented volume of requests without immediate clarity on which traffic was legitimate. To protect the user experience and maintain site stability, we implemented web application firewall protections. This included blocking requests from suspicious IP addresses (known to be malicious), plus bot-control and managed rule

6. https://blog.cloudflare.com/radar-2025-year-in-review
7. https://securityboulevard.com/2025/09/datadomes-2025-global-bot-security-report-exposes-the-ai-traffic-crisis
8. https://blog.cloudflare.com/radar-2025-year-in-review

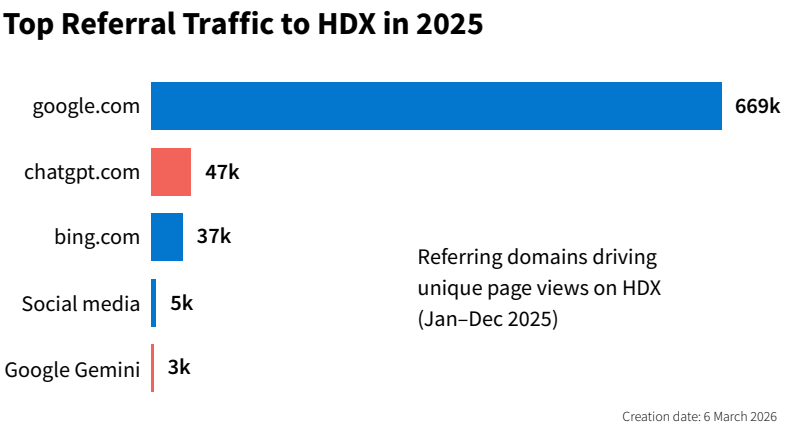
groups, rate-based rules for request throttling, geolocation filtering, and other custom rules to block or challenge suspicious traffic.

Distinguishing between human users and automated agents has become more of an art than a science. Currently, HDX categorizes traffic into three primary tiers:

- **Wanted bots:** This includes traditional search engine crawlers and programmatic users, as well as new AI-driven traffic identified by user-agent strings indicating indexing, training, or retrieval purposes.
- **Unwanted bots:** High-volume traffic associated with bots attempting to take down the site, aggressive scrapers, and security probes.
- **The 'grey zone':** Traffic that lacks identifying characteristics, providing no fingerprinting data or user-agent strings to verify intent.

## Unique challenges for Open Data platforms

The traffic surges at HDX reflect a profound shift in our digital ecosystem, creating a new tension in our goal to provide humanitarian data that is easy to find and use. As the demand for high-quality training data grows, our commitment to open access has created an unexpected technical burden.




Machine learning algorithms are only as effective as the data they are trained on. In a digital landscape increasingly saturated with low-value memes and synthetic articles, curated humanitarian data represents a gold mine for LLM training and retraining. Thus, platforms like HDX have become primary targets for aggressive AI crawlers seeking structured, high-fidelity information.

Much of the world's valuable information remains locked behind paywalls, proprietary systems, or private Intranets. In contrast, HDX follows the fundamental principle of Open Data: that data can be freely used, re-used and redistributed. While all data on HDX is shared under a license set by the contributor, HDX prioritizes public accessibility and a streamlined user experience, intentionally removing roadblocks, reducing login requirements and providing rapid download options to empower humanitarian users.

The very features designed to facilitate human impact have made HDX and other open platforms a prime target for high-frequency bot crawls. This surge in automated traffic now threatens the stability of these platforms, creating a digital paradox where the effort to keep data open risks obstructing the legitimate users we are most committed to serving.

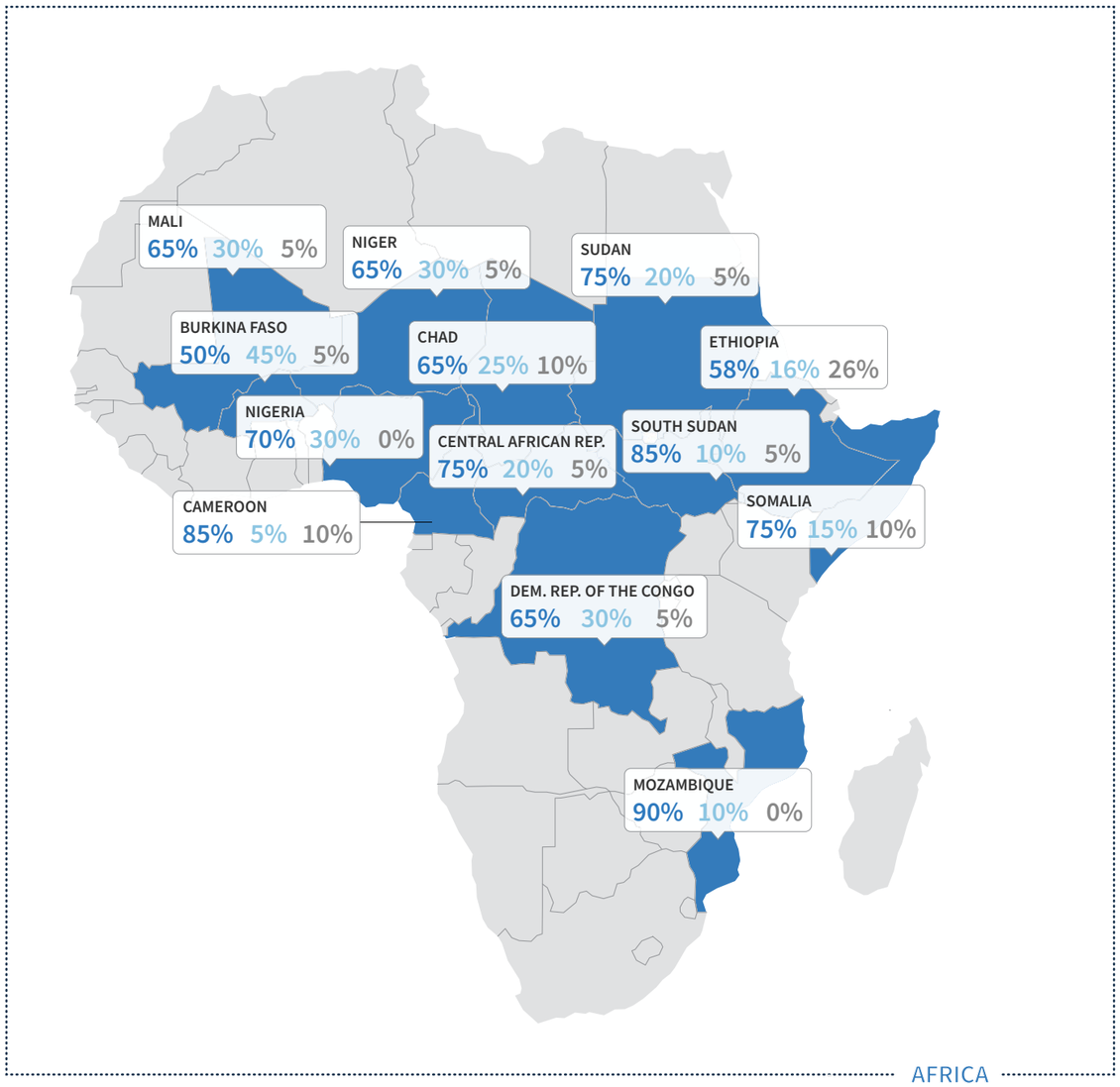
## Navigating a bot-fueled Internet

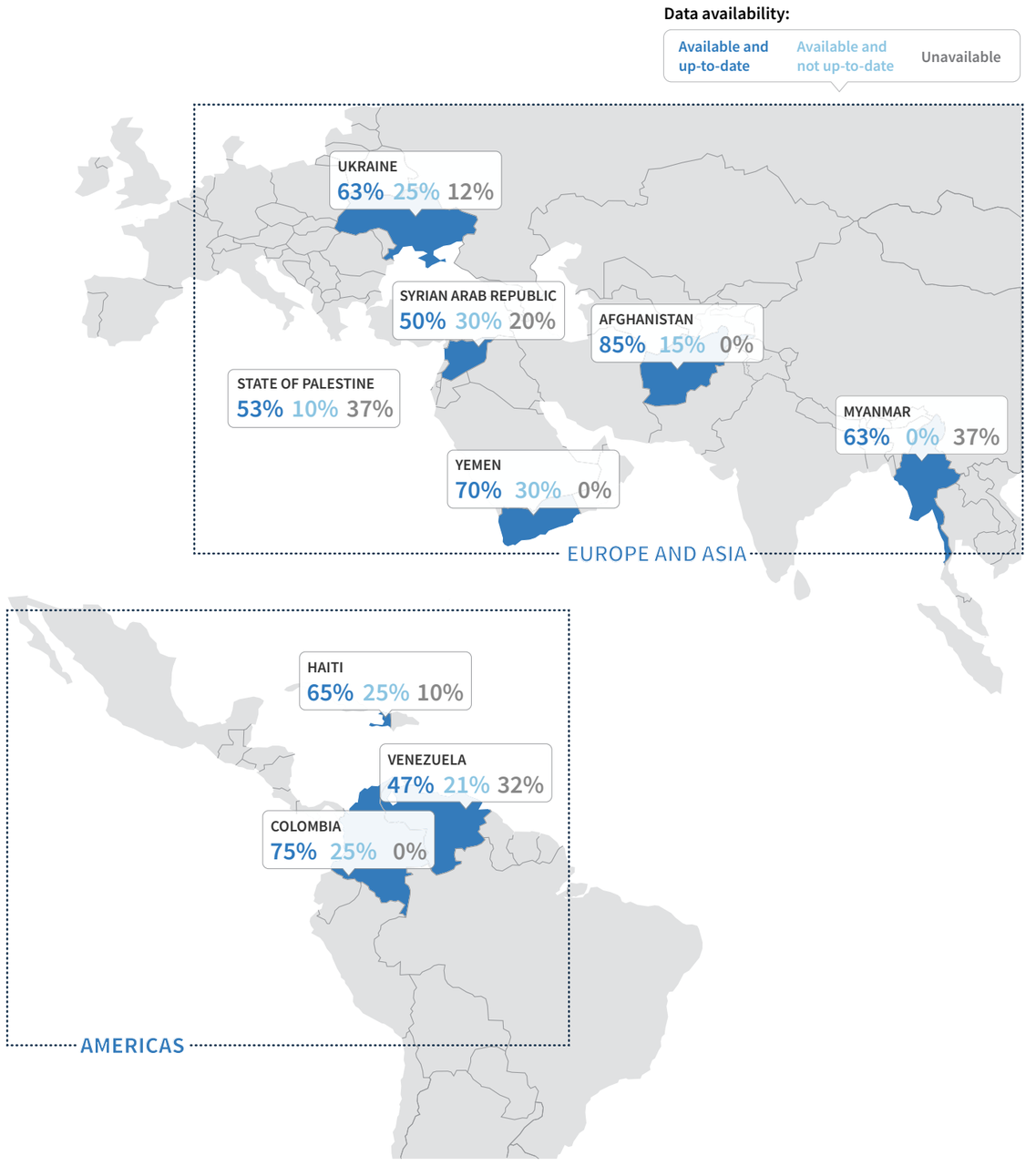
Rising automated traffic requires a more nimble approach to identifying, parsing and responding to various bot behaviors. The first step is recognizing that not all automated traffic is detrimental. We need to distinguish between types of bot traffic and interact successfully with each type.

Search behaviors are shifting towards AI platforms like ChatGPT, Claude and Gemini, with chatbots becoming a dominant gateway to information. As such, it is important that humanitarian data appears in AI-generated results, as it has with traditional search engines. It is equally critical that AI platforms relay humanitarian data accurately, rather than contributing to misinformation. This will mean trusted answers can be found by those who need them – the central goal of HDX.

Managing bot identification and platform safety will require a strategic reallocation of resources towards infrastructure and specialized skillsets. This will ensure our platforms remain human-first but become AI-ready. Many of our data partners are also facing this challenge and we will need to navigate it together.

# 5. Global overview




The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

| NUMBER OF LOCATIONS | NUMBER OF CATEGORIES | NUMBER OF SUB-CATEGORIES | NUMBER OF CONTRIBUTING ORGANIZATIONS |
|---|---|---|---|
| 22 | 6 | 20 | 16 |

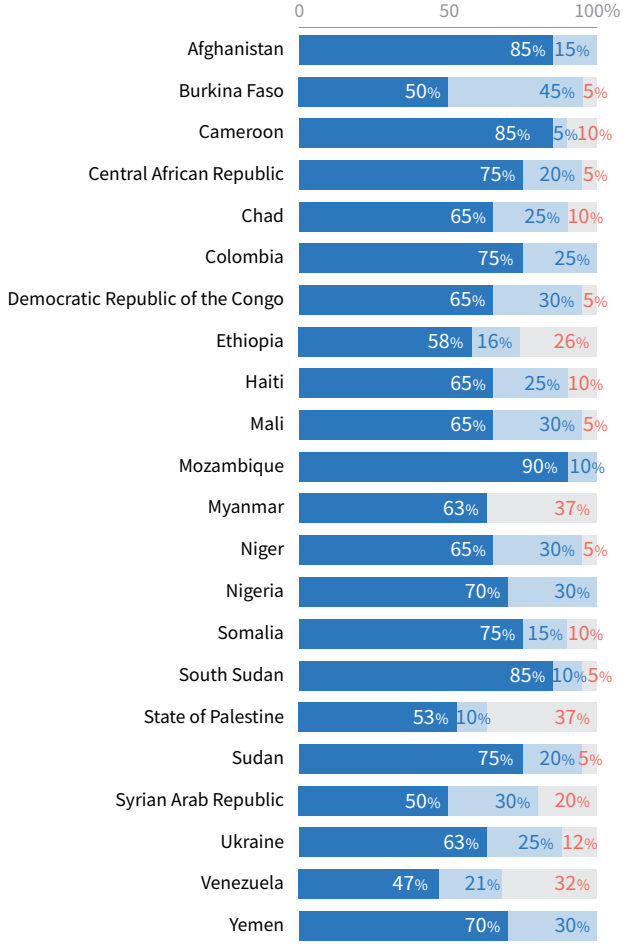
| TOTAL PERCENTAGE AVAILABLE AND UP-TO-DATE DATA | TOTAL PERCENTAGE AVAILABLE AND NOT UP-TO-DATE DATA | TOTAL PERCENTAGE UNAVAILABLE DATA |
|---|---|---|
| 68% | 21% | 11% |

# 6. Availability by location, category and sub-category

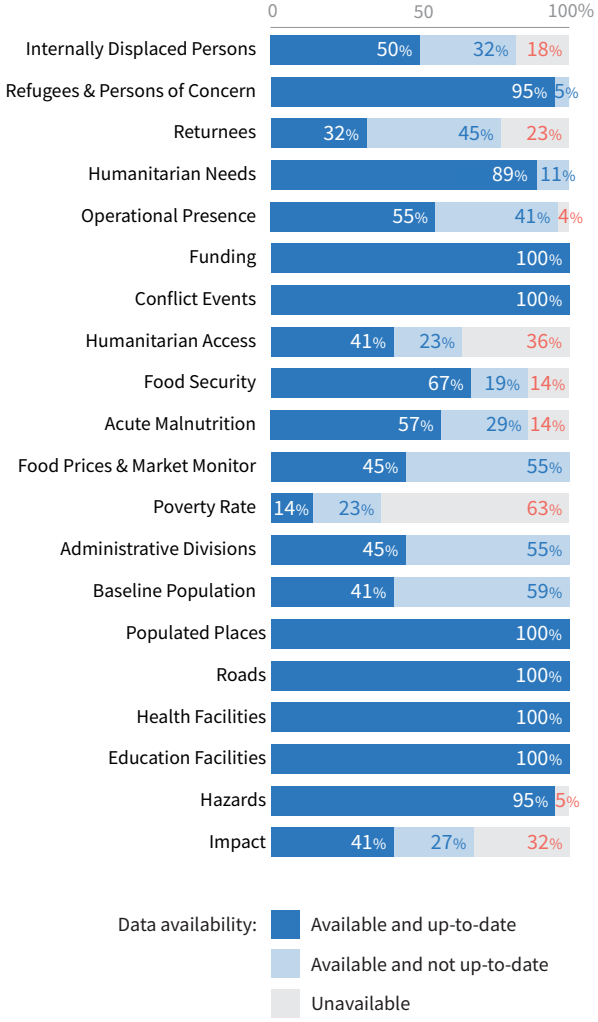
The locations with the highest levels of up-to-date and available data are Mozambique (90 percent), Afghanistan (85 percent), South Sudan (85 percent), and Cameroon (85 percent). The locations with the lowest levels of up-to-date and available data are Venezuela (47 percent), the Syrian Arab Republic (50 percent), Burkina Faso (50 percent), and the State of Palestine (53 percent).

The categories with the most available and up-to-date data are health and education (100 percent), coordination and context (74 percent). The category with the least available and up-to-date data is food security, nutrition and poverty (46 percent).

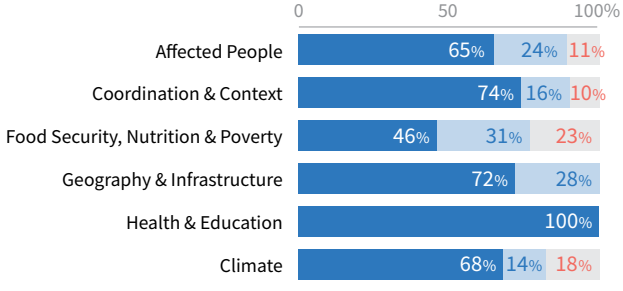
## BY LOCATION




## BY SUB-CATEGORY




## BY CATEGORY

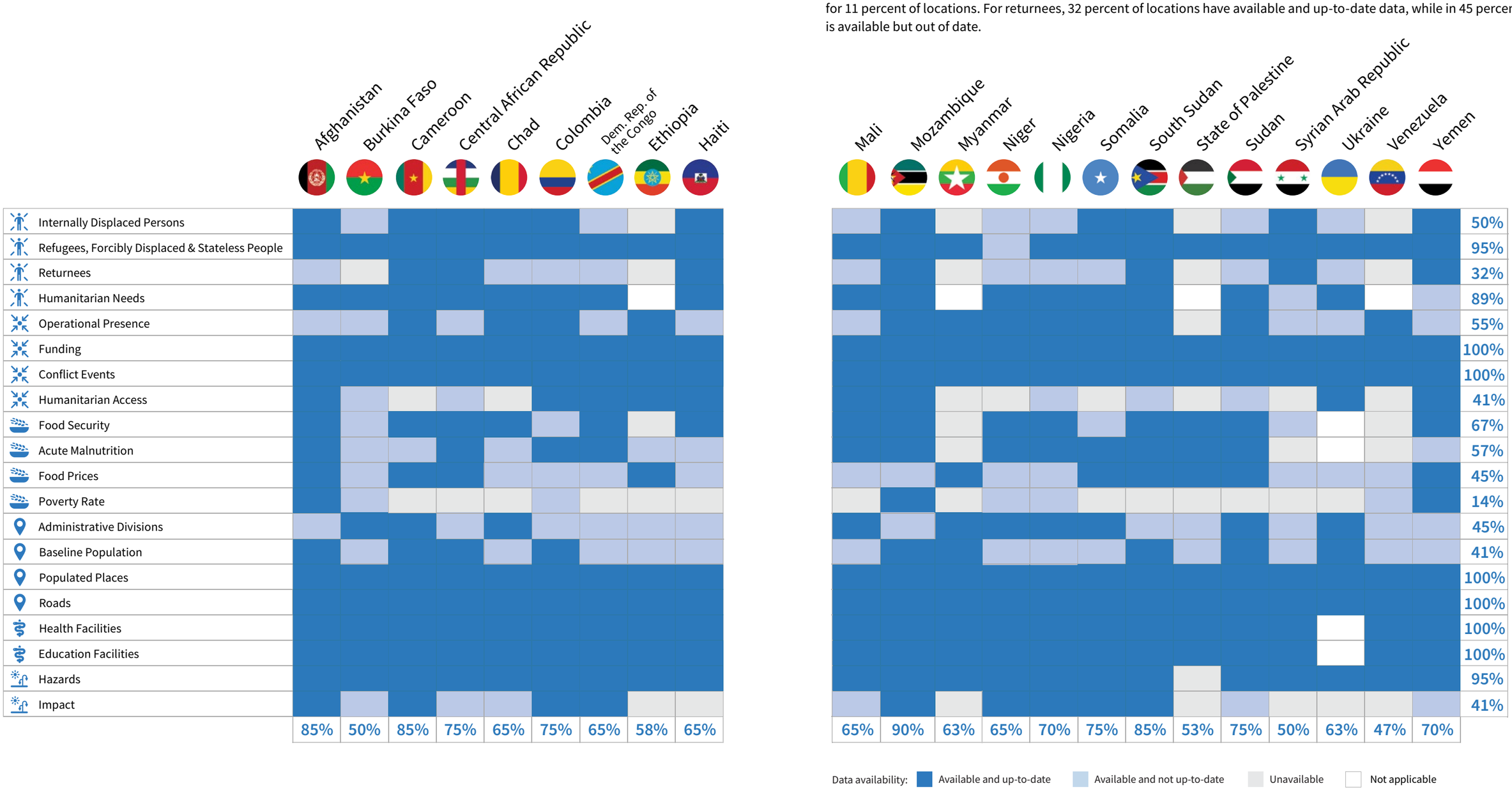


# 7. Availability by location and sub-category

Six sub-categories had 100 percent available and up-to-date data: conflict events, funding, populated places, roads, health facilities, and education facilities. Refugees, forcibly displaced and stateless people and hazards reached 95 percent availability.

The poverty rate sub-category had only 14 percent of data available and up-to-date, the lowest in the Data Grids. Data is available but out of date for 23 percent of locations and 63 percent of locations have no data. Poverty rate data is dependent on up-to-date surveys, and the low availability can be partly attributed to the lack of recent surveys in many HNRP locations.

For humanitarian needs, 89 percent of locations have available and up-to-date data, while the data is available but out of date for 11 percent of locations. For returnees, 32 percent of locations have available and up-to-date data, while in 45 percent, data is available but out of date.






OCHA CENTRE FOR HUMANITARIAN DATA

# 8. Contributing organizations

Out of the 217 active organizations[9] currently sharing data on HDX, 16 contribute data that is included in the Data Grids, with more than 100 sources referenced. FAO Data in Emergencies was new to the list in 2025 and two organizations were dropped from last year's list: the World Health Organization and the White Helmets. While OCHA is counted as one organization, data was contributed by 19 OCHA country offices, three Headquarters' teams and three regional offices. In total, OCHA teams contributed 151 datasets or 37 percent of all datasets in the Data Grids.

**Armed Conflict Location & Event Data**

**Atmospheric and Environmental Research**

**Food and Agriculture Organization of the United Nations**

**Food Security and Nutrition Working Group, West and Central Africa**

**Humanitarian OpenStreetMap Team**

**International Organization for Migration**

**Integrated Food Security Phase Classification**

**Joint Research Centre of the European Commission**

**Myanmar Information Management Unit**

**Oxford Poverty and Human Development Initiative**

**Palestinian Central Bureau of Statistics**

**United Nations Population Fund**

**United Nations High Commissioner for Refugees**[10]

**United Nations Office for the Coordination of Humanitarian Affairs**

**World Food Programme**

**WorldPop**

9. An organization on HDX can be a legal entity or an informal group. The organization may be the direct source of the data or may contribute the data on behalf of multiple sources.
10. UNHCR includes UNHCR HQ and UNHCR Afghanistan, which shares a dataset on returning refugees for the returnees sub-category for the Afghanistan Data Grid.

# 9. Organization deep-dive: Climate data providers

Over the past several years, the HDX team has worked to broaden access to climate data in order to support anticipatory action and impact assessments for weather-related hazards in humanitarian operations. While this data is often shared publicly by providers ranging from universities to the private sector, it can be difficult to find and use given barriers to discoverability, complex file formats and the limited accessibility of technical documentation.

In 2022, we started to include climate data in the Data Grids. We began with a sub-category for climate impact data, which includes current and historical impacts of climate events on people, infrastructure and vegetation. In 2025, we expanded this coverage to include data on hazards, such as droughts, floods and storms. These datasets, along with forecasts, are essential for the advanced analysis involved in predicting crises and defining triggers for anticipatory action frameworks.

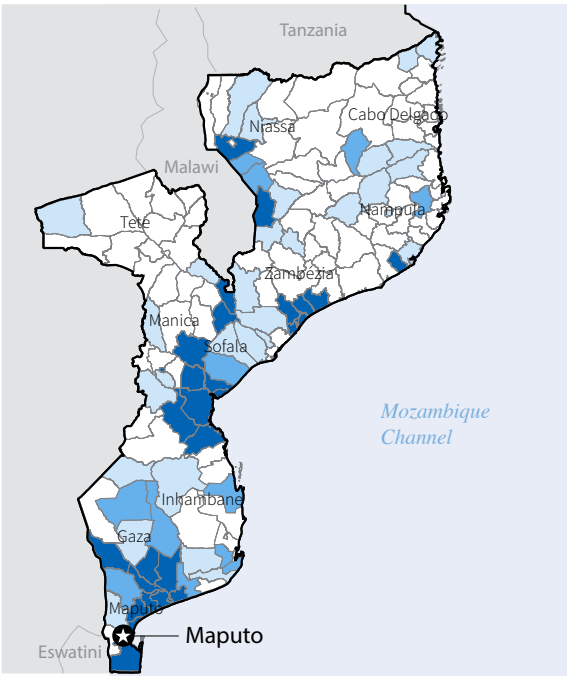
Although there are over a dozen climate data providers on HDX, three organizations in particular contribute to the Data Grid climate category: the Joint Research Centre of the European Commission, JANUS Atmospheric and Environmental Research, and the Climate Hazards Center. These organizations bring scientific and technical expertise that complements humanitarian knowledge.

**The Joint Research Centre of the European Commission** has shared their global Anomaly Hotspots of Agricultural Production (ASAP) dataset on HDX since December 2023. ASAP is an operational early warning system that tracks hotspots of agricultural production anomalies across crop and rangeland areas. The agricultural hotspots analysis for 80 countries is updated monthly, whereas the underlying indicators are updated every 10 days. ASAP blends satellite data with agro-climatic indicators to flag emerging drought, vegetation stress, and production risks. Its hotspot alerts support food security monitoring and crisis anticipation, giving humanitarian analysts an early signal when agricultural seasons are deteriorating.

**The JANUS Research Group** has shared their FloodScan: Near Real-Time and Historical Flood Mapping dataset on HDX since March 2024. FloodScan delivers global flood extent mapping using passive microwave satellite data, allowing responders to monitor floods even under cloud cover. Updated daily, FloodScan provides one of the most consistent, high-frequency flood monitoring products available. By making their lower resolution dataset covering Africa publicly available on HDX, they provide humanitarian teams with early visibility on the scale, location, and progression of flood events.

**Mozambique: Districts affected by flooding**

The map shows the maximum flood extent by district in Mozambique following flooding in December 2025. Districts in the central and southern regions experienced the largest flooded areas, particularly in Gaza province.



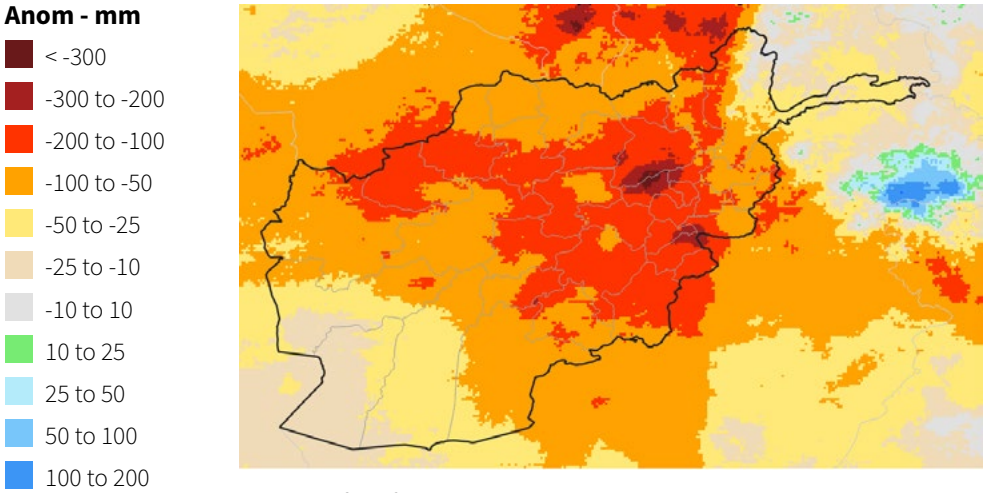

**Flood extent by district**

- 24-66%
- 10-23%
- 0-9%

Data source: JANUS Atmospheric and Environmental Research
Creation date: 5 March 2026

**Afghanistan: Rainfall anomaly from March to May 2025**

Compared with the 1991–2020 average, most of Afghanistan received less rainfall than normal between March and May 2025. The largest deficits were seen across central, northern and northeastern areas.




Data source: CHIRPS

Creation date: 3 March 2026

**The UC Santa Barbara Climate Hazards Center** has produced the CHIRPS dataset since 2015. CHIRPS was designed for agroclimatological monitoring in food insecure areas to support drought monitoring by the Famine Early Warning Systems Network. The dataset combines satellite and station data to provide gridded quasi-global precipitation estimates at regular timesteps. A new version of CHIRPS, version 3, became available in 2025. It includes more station data and covers 60°N to 60°S and all longitudes.

WFP processes the CHIRPS rainfall data for 129 countries, aggregating it for each administrative region and calculating long-term averages and anomalies. This processing makes the data easier to analyze and interpret. WFP has shared this data on HDX since 2023.[11]

These datasets have improved the ability for humanitarians and a wider set of partners to understand and respond to climate-related crises. A powerful example of this comes from Sauti East Africa, an NGO based in Kenya, that uses HDX to access FloodScan and CHIRPS datasets, among others, and translates this data into short, simple text messages that are used by farmers and traders to plan migration, conserve water or seek aid during droughts.[12]

The following dataset characteristics have proved to be particularly valuable for analysis and decision support:

- **High-update frequency:** The update frequency of these datasets ensure humanitarians can effectively monitor rapidly changing climate conditions. The satellites used by FloodScan cover most of the earth twice a day, resulting in up to four daily observations and allowing for humanitarians to detect changes in flooding in near real-time. Both ASAP and CHIRPS increase the speed at which humanitarians can identify emerging food security risks, with ASAP identifying agricultural anomalies through detailed warning updates every ten days and CHIRPS providing preliminary rainfall estimates every five days.[13]
- **Broad geographic coverage:** Providing global data in a standardized format enables analysis pipelines to be more easily scaled, allowing humanitarians to consistently analyze climate conditions across geographies. This broad geographic coverage also facilitates types of analysis that would not otherwise be feasible. For example, where traditional flood impact assessments are often local, using high-resolution imagery to capture the footprint of a flood event, the near-global coverage of the FloodScan dataset informs regional patterns and trends.
- **Availability of historical data:** With historical data, analysts can create benchmarks against which to measure new shocks and predict future ones. CHIRPS provides access to historical data from 1981 to present, FloodScan from 1998 to present, and ASAP from 2000 to present. This historical data allows for the creation of reliable seasonal and monthly averages and ensures humanitarians can understand the relative severity of emerging climate shocks and their potential impact.

11. https://centre.humdata.org/wfp-climate-data-on-hdx
12. https://centre.humdata.org/how-hdx-and-sauti-east-africa-are-putting-data-in-peoples-hands
13. A preliminary version of the CHIRPS dataset is published every five days, finalized in monthly updates. CHIRPS rainfall estimates are one of the input indicators for ASAP.

- **Locally calibrated:** The value of these datasets is in their ability to effectively capture local conditions. For example, the CHIRPS datasets integrate satellite estimates with tens of thousands of station observations each month, capturing local variations in rainfall. This combination ensures CHIRPS data can be calibrated and fine-tuned, achieving a greater accuracy than either data source could provide alone. The ASAP dataset combines satellite data with local contextual information, such as the presence of crops and their phases of active growth. This integration of contextual analysis, within a global standard format, provides humanitarians with a more sophisticated understanding of likely impacts on agricultural production. FloodScan uses local historical statistics and seasonal change tracking to continuously predict dry-land conditions. Localized dry-land models allow FloodScan to adapt to changes in vegetation and soil moisture states, optimizing flood detection accuracy given the latest satellite observations.

Each dataset is produced by a trusted partner with an established history of providing high-quality datasets with clear humanitarian applications. We are grateful to the Joint Research Centre of the European Commission, JANUS Research Group and the UC Santa Barbara Climate Hazards Center for making their data publicly available on HDX. By doing so, they bring their immense expertise to humanitarian efforts.

# 10. Conclusion

We will continue to update the Data Grids throughout the year as organizations share new, relevant data. The current status for each location is always available on HDX, both on the relevant location page and on the Overview of Data Grids page.[14] As part of our internal Data Grid Governance Group, we will regularly review the categories and sub-categories to see if they should be removed or expanded.

We are committed to making critical data easy to find and use for analysis, informing decision making in humanitarian operations. We recognize the valuable and long-standing contributions of data-sharing organizations and welcome new actors to join the platform.

Please be in touch with questions or feedback on ways to improve this report and the HDX Data Grids at centrehumdata@un.org.

14. https://data.humdata.org/dashboards/overview-of-data-grids

# Annex A: Data Grid sub-category definitions

| Category | Sub-category/Definition |
|---|---|
|  **Affected People** | **Internally Displaced Persons**<br>Tabular data of the number of displaced people by location. Locations can be administrative divisions or other locations (such as camps) if an additional dataset defining those locations is also available.<br><br>**Refugees, Forcibly Displaced and Stateless People**<br>Tabular data of the number of refugees, forcibly displaced and stateless people, either in the country or originating from the country, disaggregated by their current location. The category includes refugees, people in refugee-like situations, asylum-seekers, other people in need of international protection, internally displaced persons (IDPs), stateless individuals, as well as those that have found a durable solution to their displacement. Locations may refer to administrative divisions or other identifiable areas (e.g., camps).<br><br>**Returnees**<br>Tabular data of the number of displaced people who have returned.<br><br>**Humanitarian Needs**<br>Tabular data of the number of people in need of humanitarian assistance by location and humanitarian cluster/sector. |
|  **Coordination & Context** | **Operational Presence**<br>List of organizations working on humanitarian issues, by humanitarian cluster/sector and disaggregated by administrative division.<br><br>**Funding**<br>Tabular data listing the amount of funding provided by a humanitarian cluster/sector.<br><br>**Conflict Events**<br>Vector data or tabular data with coordinates describing the location, date and type of conflict event.<br><br>**Humanitarian Access**<br>Tabular or vector data describing the location of natural hazards, permissions, active fighting or other access constraints that impact the delivery of humanitarian interventions. |

| Category | Sub-category/Definition |
|---|---|
| **Food Security, Nutrition & Poverty** | **Food Security**<br>Vector data representing the IPC phase classification or tabular data representing population or percentage of population by IPC phase and administrative division. Where available, tabular data on rural population livelihood as well as crop and livestock production are included.<br>**Acute Malnutrition**<br>Tabular data specifying the global acute malnutrition (GAM) or severe acute malnutrition (SAM) rate by administrative division.<br>**Food Prices**<br>Time series for common food commodities prices at sub-national locations<br>**Poverty Rate**<br>Population living under a defined poverty threshold, aggregated by administrative division and represented as a percentage of total population or as an absolute number. |
| **Geography & Infrastructure** | **Administrative Divisions**<br>Vector geographic data describing the sub-national administrative divisions of a location, usually a country, including the names and unique identifiers, usually p-codes, of each administrative division.<br>**Baseline Population**<br>Total population disaggregated by age and sex categories, aggregated by administrative division.<br>**Populated Places**<br>Vector data or tabular data with coordinates representing the location of populated places (cities, towns, villages).<br>**Roads**<br>Geographic data describing the location of roads with some indication of the importance of each road segment in the transportation network. The data should exclude or indicate roads that are not usable by typical four-wheel-drive vehicles (footpaths, etc.). |
| **Health & Education** | **Health Facilities**<br>Vector data or tabular data with coordinates representing health facilities with some indication of the type of facility (clinic, hospital, etc.).<br>**Education Facilities**<br>Vector data or tabular data with coordinates representing education facilities with some indication of the type of facility (school, university, etc.). |
| **Climate** | **Hazard**<br>Current and historical data about climate hazards such as droughts, floods and storms.<br>**Impact**<br>Tabular or vector data containing current and historical impacts of climate events relating to droughts, floods and storms. The data should specify the location of the event, date of the event, and contain at least one indicator of impact such as spatial extent of event, disruption to affected populations, destroyed infrastructure, and/or affected vegetation. |

# Annex B: Inclusion of data in the Data Grids

Data Grid curation involves the careful evaluation of datasets on HDX for inclusion in one or more of the sub-categories in line with our criteria. The HDX team does this evaluation when a dataset is newly added or updated on HDX. It also conducts targeted outreach with organizations to find relevant datasets.

Data may be included in the Data Grid if it is relevant to the sub-category, sub-national, has broad geographic coverage, and is shared in a commonly used format. The criteria for evaluating this includes:

- **Relevant to the sub-category:** The data must meet the definition of the sub-category.
- **Sub-national:** The data must be disaggregated to at least the first administrative division. If the data is only available at the national level, it is typically excluded with some exceptions (see more below).
- **Broad geographic coverage:** The data should be as comprehensive as possible. It should contain geographic data (i.e., Shapefile, GeoJSON, Geopackage, tabular data with latitude and longitude fields or P-codes). If not, the dataset should at least be joinable to an available dataset that defines those locations.
- **Commonly-used format:** The data should be in any of the following formats: tabular data (CSV, XLSX, XLS) or vector geographic data (SHP, GPKG, GeoJSON, KML). Field names and data rows should be easy to determine. The data should be tidy, e.g., there should not be totals or sub-total rows within the data.

If a dataset on HDX meets these criteria, data for the sub-category is considered ‘available’. We then assess its timeliness. We make a distinction between whether the data is up-to-date or not up-to-date, according to the update frequency set by the contributing organization on HDX.

Data is considered ‘unavailable’ if it does not meet the above criteria or it has not been shared on HDX. In cases where data has been collected but is too sensitive to share publicly, organizations can use the HDX feature ‘HDX Connect’ to share only the metadata and make the underlying data available by request. HDX Connect datasets are counted as available and their timeliness is assessed based on the expected update frequency.

Five Data Grid sub-categories include complementary datasets: humanitarian needs; food security; food prices; populated places; and hazards. A complementary dataset is one that adds unique or useful information to the sub-category.

OCHA’s global humanitarian programme cycle dataset is complementary to humanitarian needs. WorldPop’s spatial distribution of population dataset is complementary to populated places. WFP’s market monitor dataset is complementary to food prices. The FAO Data in Emergencies dataset is complementary to food security. The ASAP and the FloodScan datasets are both complementary to hazards.

Exceptions to the Data Grid inclusion criteria are made in the following instances:

- The sub-national requirement has been partially or completely waived for two datasets: the Anomaly Hotspots of Agricultural Production from the Joint Research Centre of the European Commission and requirements and funding data from OCHA FTS.