

Interim Progress Report #4
OCHA Centre for Humanitarian Data

Submitted to the Ministry of Foreign Affairs of the Kingdom of the Netherlands

Grant start date: 1 July 2017

Grant end date: 30 June 2020

Interim report period: 1 January – 30 June 2019

I. Overview

This narrative report covers the activities of the OCHA Centre for Humanitarian Data during the period 1 January through 30 June 2019. This 6-month period focused on extending the value of OCHA's data sharing platform, the Humanitarian Data Exchange (HDX), increasing adoption of data standards, making progress with data responsibility, and developing the Data Literacy Foundation Programme. The period also focused on creating our predictive analytics workstream which will be launched in September 2019.

Significant achievements during the reporting period included:

- The number of unique users of HDX increased by 31%, from 40,608 to 53,345 per month.
- The number of overall datasets on HDX grew by 17% from 8,221 to 9,620 datasets provided by over 294 organizations.
- We continued supporting five organizations to share funding data with OCHA's Financial Tracking Service in the IATI format, with one entity, OCHA's Country-based Pooled Funds, on track to share through an automated process.
- The working draft of the OCHA Data Responsibility Guidelines was field tested in Yemen, Syria, Afghanistan and Venezuela.
- Over 1,200 humanitarians completed our January 2019 survey on data skills in the sector and the results were used to inform a two-year roadmap for the Centre's data literacy programme.
- The Centre developed a one-year proposal for bridge funding to accelerate the application of predictive analytics for anticipatory action in humanitarian response.

The Centre mobilized additional financial support for our activities from one new partner and one existing partner: 1) The Government of Luxembourg earmarked USD 100,000 to the Centre in their annual contribution to OCHA's programme budget¹; and 2) the City of The Hague contributed an additional EUR 20,000 to support a workshop on predictive analytics in humanitarian action that was organized and hosted by the Centre in April 2019.

Details on the substantive work of the Centre are provided below.

II. Objectives and Key Results

The mission of the Centre is to work with partners to increase the use and impact of data in humanitarian response. The vision is to create a future where all people involved in a humanitarian situation have access to the data they need, when and how they need it, to make responsible and informed decisions.

The Centre is focused on four objectives which are related to the four workstreams, including:

- Increase the interoperability of humanitarian data through shared standards and integrated systems (data services)
- Increase the trust and cooperation across organizations sharing data in humanitarian response (data policy)
- Increase the capability of people to access and use data in support of humanitarian efforts (data literacy)
- Increase the number of active partners engaged with the Centre (network engagement)

¹ Since these were contributed to OCHA's programme budget and supported the Centre's staff costs.

To fulfill its vision, the Centre seeks three outcomes:

- Increase the speed of data from collection to published product
- Increase the number and strength of connections with the Centre
- Increase the use of HDX

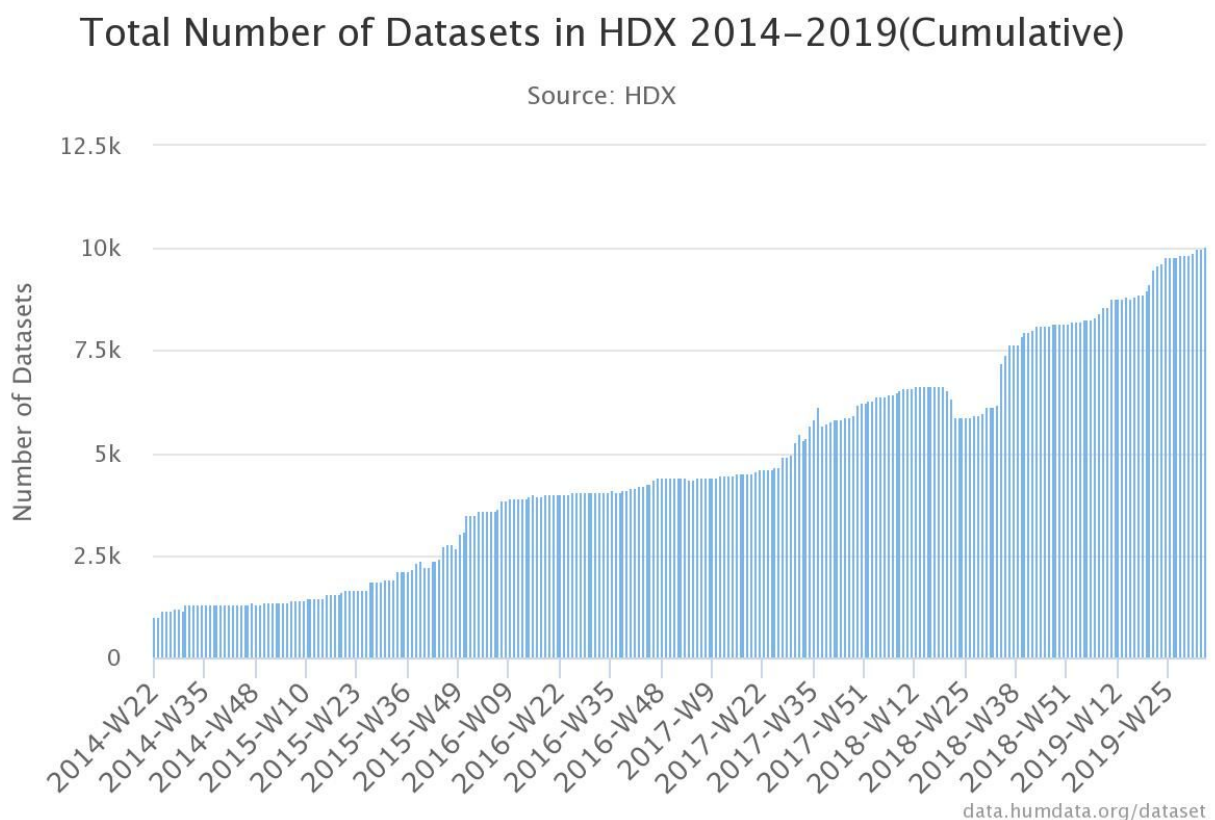
The Humanitarian Policy Group at the Overseas Development Institute (ODI) worked with the Centre in early 2018 to review its three-year results framework (July 2017-July 2020) and to develop baseline measurements for our four objectives and three outcome indicators. An independent evaluation of the Centre will start in August 2019 and its findings will inform the Centre’s next 3-year business plan.

A. Data Services

The Humanitarian Data Exchange

The Centre’s data services work includes management of HDX and increasing the use of data standards, including HXL and IATI. Over the six-month reporting period, the HDX platform saw tremendous growth: the number of unique users increased by over 31%, from 40,608 to 53,345 per month; the monthly number of datasets downloaded increased by 69%, from 104,197 in January 2019 to 176,347 by end-June 2019, and the overall number of datasets grew by 17%, to 9,620 datasets uploaded (see Figure 1).

Figure 1: Cumulative growth in HDX datasets:

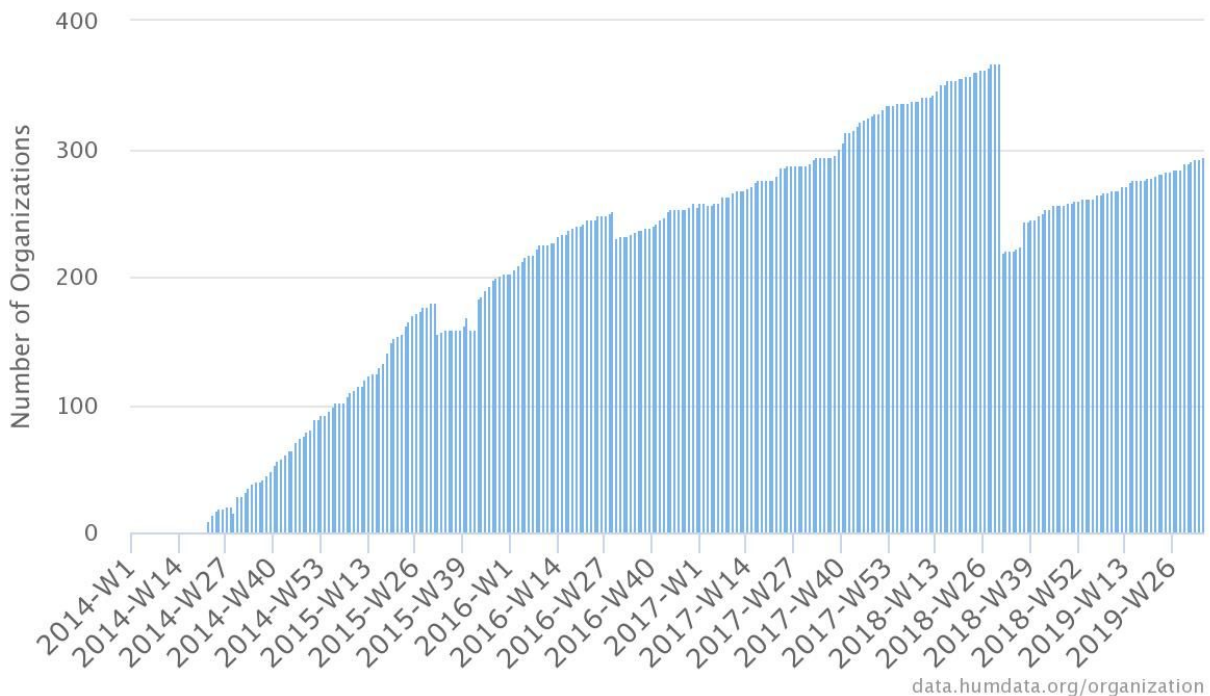


Twenty-three organizations joined the platform in the first half of 2019, bringing the total number of organizations on HDX to 294 (see Figure 2). Together, all organizations added 1,399 new datasets. Twenty-two organizations are sharing data programmatically, meaning that updates to the data happen automatically without manual intervention by a data manager. One change we made in July 2018 was to remove inactive organizations from the platform. Only organizations that have shared at least one dataset now appear in the list of organizations. UNHCR, Humanitarian OpenStreetMap Team, and WorldPop are the most active organizations on the platform with 1,969; 819; and 810 datasets respectively.

Figure 2: Cumulative growth in HDX members:

Number of Organizations in HDX 2014–2019(Cumulative)

Source: HDX



HDX also powered a number of interactive data visualizations that were integrated with other OCHA properties including unocha.org, Reliefweb, and Humanitarian InSight. Data shared through HDX was used to create custom visuals about crises around the world, including [Somalia drought response](#), [status of flood response in Malawi](#), [displacement in Marawi, Philippines](#), and a [community feedback dashboard for the Earthquake, Tsunami, and Liquefaction response in Central Sulawesi](#).

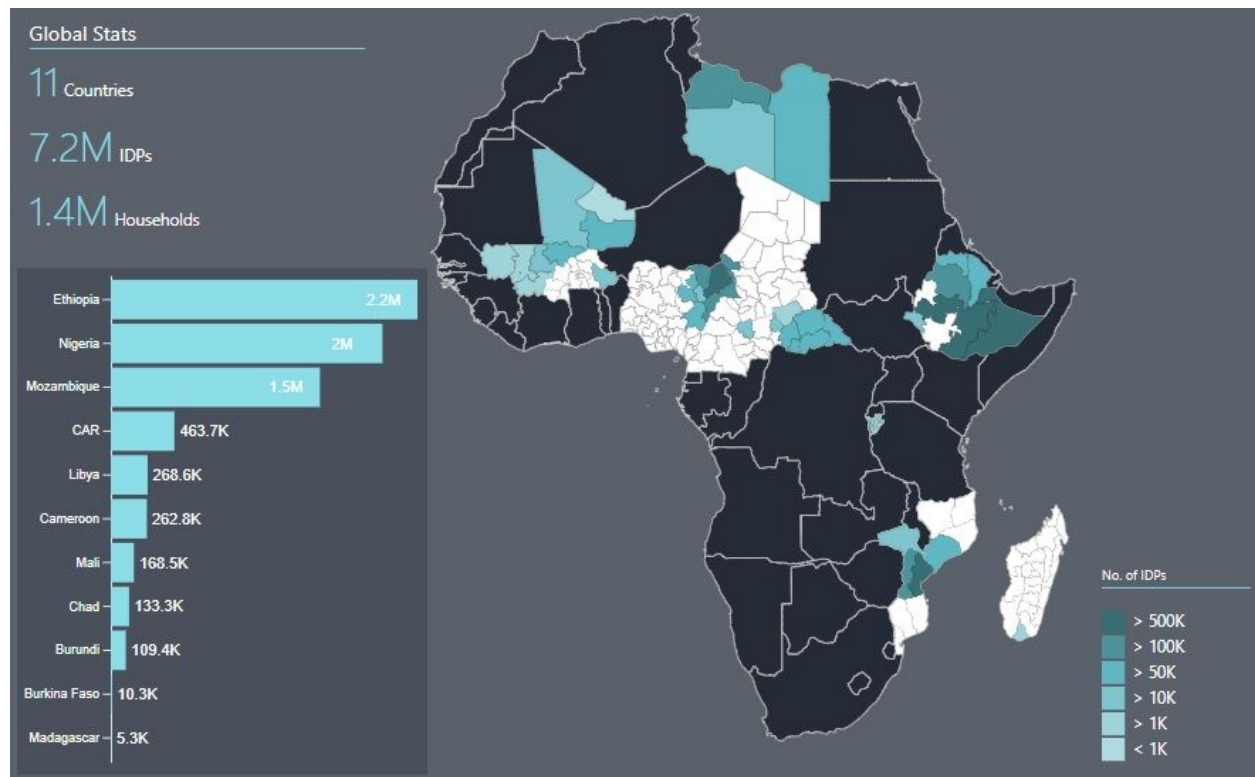
As the number of datasets on HDX has grown exponentially we realized that it is not always easy to find the right data you need. To address that issue we created a new feature called the 'Data Grid' to help users in their quest for good and relevant data. Based on interviews with our users, the Data Grid places the most important crisis data into six groups: affected people; coordination and context; food security and nutrition; geography and infrastructure; health and education; and population and socio-economic indicators. As of June 2019, we have core curated data for 14 crises across 26 categories. Completeness of the data varies across categories so we are always appealing to partners for these core datasets.

The Humanitarian Exchange Language

Regarding the Humanitarian Exchange Language (HXL), the reporting period was focused mainly on data-partner outreach and a usability study to better understand user needs to help inform design and promote uptake. Further enriching this research was field testing conducted by IFRC and shared with the Centre. A collaboration with the IATI tech team on data-standards interoperability made IATI activity data for all countries available on HDX as HXL-hashtagged spreadsheets, with Quick Charts. A new instant HXL dashboard "Quick Dash" was developed in collaboration with British Red Cross, tested with field partners and now in active use both in Red Cross and HDX teams. From January - June 2019, 11 additional organization shared an additional 356 additional HXL-hashtagged datasets on HDX.

As part of an agreement with the International Organization for Migration (IOM), work continued in 2019 on improving access to displacement data. Through support from a staff secondment to the Centre, IOM is making it easier for its field staff to share data through HDX and is increasing the interoperability of their displacement monitoring data by using HXL. See visual below of multiple DMT datasets combined with HXL tags².

² Data reflected is beyond the reporting period and is accurate as of September 2019.



The International Aid Transparency Initiative

In 2018, the Centre also initiated a pilot project to provide an automated way for organizations to publish information about their humanitarian funding and activities according to the International Aid Transparency Initiative (IATI) standard in OCHA's Financial Tracking Service (FTS). Since many organizations already publish data on development spending via IATI, use of the standard for humanitarian spending will reduce duplicate reporting and create internal efficiencies and cost savings. Participants for the pilot include the International Rescue Committee, the Netherlands Ministry of Foreign Affairs, OCHA's Country-based Pooled Funds, the UK Department for International Development, and the United States Agency for International Development.

The pilot includes the following components:

- Support to pilot partners to modify their existing financial and activity reporting systems (or creating new ones).
- Integrating the new reporting streams into FTS, and testing FTS's recently-developed IATI ingestion module.
- Developing technical guidelines for reporting humanitarian funding to FTS using IATI.
- Training and outreach events, including an IATI-FTS technical meeting with partners.

As of June 2019, we continued to support five partners to provide their data to FTS using the IATI standard. Only one organization, OCHA's Country-based Pooled Funds, was on track to do this through an automated process.

B. Data Policy

The Centre's data policy work is focused on developing a framework and guidelines for how OCHA manages data responsibly in humanitarian crises. The Centre also provides advice to OCHA staff and partners on data sharing agreements and data security.

The Centre published a working draft of the OCHA Data Responsibility Guidelines in March 2019, providing OCHA staff and partner agencies with a set of key actions, outputs, and tools for data responsibility across the data management process. Field testing of the Guidelines got underway in Afghanistan, Syria, Yemen and Venezuela, while a number of OCHA digital systems were assessed for improving data security and enhancing terms of service to be in line with the new guidance.

The Centre convened a first-of-its-kind event on data responsibility in humanitarian action at Wilton Park in the UK, where more than 50 humanitarian leaders met to discuss shared operational guidance and best practices for the responsible and safe sharing of data about crisis-affected people

At the beginning of 2019 the Centre initiated a two-year, EUR 500,000 project funded by the Directorate-General for European Civil Protection and Humanitarian Aid Operations (DG ECHO) focused on the management of sensitive data and improving data responsibility. The project aims to ensure responsible data exchange by partners in the humanitarian sector. The Centre will address this challenge by establishing and promoting the uptake of a secure infrastructure process and service model for de-risking sensitive data before publication. During the reporting period work was initiated on setting up the secure environment to carry out data security testing. The technical support will be reinforced with task-based guidance notes and community events and outreach. Two such technical guidance notes were developed (and later published in August) on statistical disclosure control and data incident management).

C. Data Literacy

The Centre's data literacy work is focused on increasing the capability of humanitarians to access and use data in their daily work. The Centre's data literacy workstream involves developing a data literacy curriculum, learning resources and delivering a number of training events.

The Centre undertook extensive research with Dalberg in early 2019 to understand the data skills of humanitarians and how best to address them. This included a landmark survey on how humanitarians use data and what data skills they require. More than 1,200 people from 111 countries responded. The survey results and qualitative interviews were used to inform a comprehensive two-year roadmap for the Centre's data literacy programme. Two people were recruited to lead the data literacy workstream, one with deep experience in delivering data trainings and the other with deep OCHA field experience. Later in the year the Centre's first Data Literacy Foundation Programme was designed and approved by OCHA leadership, with the first cohort of OCHA Humanitarian Affairs Officers scheduled to start a three-month programme in September 2019.

The Data Literacy team also conducted frequent webinars on areas where we have specific subject matter expertise such as data policy, data visualization, predictive analytics, and how to use HDX and HXL. The team also supported other training programmes, including a module on data literacy for the OCHA's humanitarian foundation training programme in Amman in June.

Data Fellows Programme

In June and July 2019, the Centre hosted the second class of the Data Fellows in The Hague. The Data Fellows Programme is designed to expose our team and partners to new areas of data-related expertise that can impact humanitarian response and advance the goals of the Centre. The selected Fellows worked to develop solutions across four areas: Data Science, Statistics, Predictive Analytics, and Business Development.

- The Business Strategy Fellow explored the feasibility of a variety of sustainable business models for how the Centre operates.
- The Data Science (education) Fellow focused on how to support dataset tagging to improve access to data on education in emergencies.
- The Predictive Analytics Fellow worked on developing a peer-review process for predictive models applied in humanitarian sector.
- The Statistics (disability) Fellow explored how to improve the collection of data on persons with disabilities in humanitarian contexts.

D. Network Engagement

The Centre's work in network engagement involves building and engaging an active community of individuals and organizations working with humanitarian data. The Centre collaborated with

dozens of humanitarian organizations and private sector partners through information sharing, implementation of shared projects, and staff secondments.

During the reporting period we continued to grow the Centre's vast network of partners, from those sharing data through HDX to those contributing to our events and workshops. At the same time we began to focus on a smaller subset of strategic partners to further specific workstreams. This ranged from deepening our partnership with the World Bank on predictive analytics to ensuring that IOM, WFP and UNHCR are provided technical expertise for data sharing and data transformation. In terms of new partnerships, Facebook shared its High-Resolution Population Density data through HDX becoming the first major private sector partner to use the platform to reach humanitarians worldwide. More than 5,000 people accessed Facebook's data in the first seven days of it being made public.

In January 2019, the European Union's Civil Protection and Humanitarian Aid Office (ECHO) became the Centre's newest donor, launching a EUR 500,000 project on responsible use of data by humanitarians. In addition, Luxembourg earmarked USD 100,000 in the 2019 OCHA programme budget for the Centre which helps to cover OCHA staff costs. We are working with the Luxembourg MFA to make the case for an increased contribution in 2020 and to have it cover project costs.

The Centre hosted a number of events throughout the first half of the year, some highlights include an IATI-focused workshop in The Hague, a workshop on predictive analytics, and a two-day meeting on data responsibility at Wilton Park in the UK. The Centre also hosted a meeting in the Hague organized by UNICEF and Humanity & Inclusion on disability data.

In total during the reporting period, 13 [blogs](#) were published about the work of the Centre.

Highlights include:

- [Introducing The Working Draft Of The OCHA Data Responsibility Guidelines](#)
- [We Are All Data People: Insights From The Data Literacy Survey](#)
- [Workshop Recap: Predictive Analytics In Humanitarian Response](#)
- [Introducing The HDX Data Grid: A Way To Find And Fill Data Gaps](#)
- [Lessons From Connecting IATI And FTS](#)

E. Predictive Analytics

Following the work of one of the 2018 Data Fellows on developing a pilot predictive model for Somalia, the Centre began to develop an early predictive analytics capability. The Somalia model was replicated for South Sudan and we developed a new pilot model for the Syria response with the OCHA regional office in Amman. We also signed a partnership agreement with Africa Risk Capacity in order to access their data and models for southern Africa with a view to analyzing the risk of El Nino in a number of countries. The Centre worked closely with the World Bank on its Artemis model including by providing advice on model design and helping to access data. The engagement with the World Bank was time consuming but has led to a strong, trusted partnership that will be critical for the Centre's predictive analytics programme.

In April 2019, the Centre convened a workshop in The Hague on predictive analytics in humanitarian response. The workshop brought together 30 stakeholders from more than a dozen organizations to exchange information about predictive analytics initiatives and identify gaps, opportunities, and challenges related to the application of predictive models in humanitarian crises. Informed by the outcomes of that event and clear demand from partners, the Centre developed a one-year project proposal for bridge funding to accelerate the application of predictive analytics for anticipatory action in humanitarian response by OCHA. Longer-term funding for the Centre's predictive analytics work will be rolled into our next phase business plan covering 2020 onwards.

III. Centre Results Framework

A Results Framework for the Centre was included in our Business Plan with one-year targets and three-year outcomes. These have been slightly edited based on research conducted by ODI to develop baseline measurements for the objectives and outcomes. The ODI study was delivered in February 2018. The table below includes the baseline measurements and the results achieved through 30 June 2019. The results for the outcome indicators are not measured quarterly or annually but will be assessed after two years of operations. An independent evaluation is currently being conducted which will measure these outcomes.

Calendar/ Quarter		01 July 2017 (BASELINE)	31 March 2019 2019 Q1	30 June 2019 2019 Q2 (end-Y2)
Objective 1: Increase the interoperability of data through shared standards and integrated systems				
1.1a: Increase organizational adoption of HXL by 20% annually	Result >	43 HXL adopters	79 HXL adopters (40% datasets on HDX with HXL tags)	85 HXL adopters (37% of datasets on HDX with HXL tags)
1.1b: Support 5 partners with adoption of IATI annually	Result >	0 partners supported	no automatic ingestion yet; pilot continues	5+ partners supported; one org doing automatic ingestion (CBPF)
1.2a: Develop and deploy HDX Tools	Result >	0 HDX Tools deployed	Data check in HDX deployed + QC improvements	Researched Excel HXL plug in, ML HXL project, HDX Tools status quo
1.2b: HDX Tools used by 2,000 unique users annually by the end of Y3	Result >	0 annual unique users	1276 unique users [1 Jul 19 - 31 Mar 19]	1863 unique users [1 Apr 19 - 25 Jun 19]
1.3a: Increase programmatic data sharing from organizations to HDX by 20% annually	Result >	16 organizations sharing via API	20 organizations sharing via API	22 organizations sharing via API
1.3b: Increase programmatic data sharing (direct downloads) from HDX to unique users by 100% annually	Result >	314 average monthly unique users	583 average monthly unique users	962 average monthly unique users
Objective 2: Increase the trust and cooperation across organizations sharing data in humanitarian response				
2.1: Release OCHA data guidelines; develop processes and tools to ensure adoption with staff and partners by end of Y3	Result >	No data policy, processes, or tools	DR Guidelines released as working draft	Guidelines tested in Yemen, Afghanistan, and Venezuela. Support provided to H.ID.
2.2: Finalize 6 institutional MoUs/exchange of letters with partners to formalize data collaboration by end of Y3	Result >	0 MoUs in place	2 MOUs in place	4 MOUs in place

2.3: Develop methods and processes for secure sharing of data on HDX by end of Y2	Result >	No report	AWS ready to use, user research completed	Project reset with new technical lead, plan agreed
Objective 3: Increase the capability of people to access and use data in support of humanitarian efforts				
3.1: Design and implement data literacy programme by end of Y2	Result >	No data literacy programme or curriculum	Data literacy roadmap agreed, team in place	data literacy programme plan, HAO programme approved by ASG, HXL training research completed
3.2a: Deliver at least 10 data training events online or in-person annually	Result >	0 events delivered	10 data training events	8 data training events
3.2b: Deliver data training events to at least 400 people annually	Result >	0 trained persons	313 trained persons	275 trained persons
3.2c: Data training event participants are at least 50% women	Result >	n/a%	45%	45%
3.3: Develop Data Fellows Programme and deploy up to 3 fellows annually	Result >	No Data Fellows Programme or fellows	Data Fellows shortlisted	4 Fellows onboarded, Bootcamp held, projects and partners clear
3.4: Increase the number of embedded visuals on and off HDX by 10% annually	Result >	32 embedded visuals (all on HDX)	97 embedded visuals: 78 on HDX, 19 elsewhere	120 embedded visuals (11 new)
3.5: Develop 10 custom data visuals for partners annually	Result >	0 custom data visuals	27 custom visual (8 new)	38 custom visuals (11 new)
3.6: Develop at least one predictive model, the results of which are integrated into existing OCHA decision-making processes	Result >	n/a	PA Workshop planning	PA workstream clarified, PA lead hired (starts in September 2019), Y1 proposal written
3.7: Core (curated) data for at least 30 priority countries is available with 75% completeness by end of Y3 (tbc)	Result >	n/a	14 countries, 26 categories: 18% complete; 27% partially complete, 56% empty	14 countries, 26 categories: 18.5% complete (up .5%); 34% partially complete (up 7%); 48% empty (down 7%)
Objective 4: Increase the number of active partners engaged with the Centre				
4.1a: Develop 10 strategic partners by end of Y3	Result >	1 strategic partner	5 strategic partners	5 strategic partners

4.1b: Develop 10 implementing partners by end of Y3	Result >	0 implementing partners	6 implementing partners	7 implementing partners
4.2a: Produce 30 outreach products in support of Centre and partner work annually	Result >	0 outreach products	20 outreach products (71 total)	28 outreach products (99 total)
4.2b: Produce 10 Centre-hosted outreach events in support of Centre and partner work annually	Result >	0 outreach events	+6 outreach events (21 total)	+4 outreach events (25 total)
4.3: Deliver a partnership strategy by end of Y2	Result >	No strategy in place	Tracker launched and in use, monthly meetings held	research underway
4.4: Develop a sustainable model for aspects of the Centre's work by end of Y2	Result >	No model in place	on hold	research underway
4.5a: 25% increase in average number of users on HDX platforms per year	Result >	19,308 average monthly users	47818 average monthly unique users	55,095 average monthly users
4.5b: 25% increase in average number of users on Centre site per year	Result >	922 average monthly users	3,229 average monthly unique users	2,008 average monthly unique users
Objective 5: Well managed internal operations				
Key Result 5.1: Staff well-managed (regular meetings, clear teams, proper onboarding for new staff)	Result >	n/a	All recruitments done or in progress except for Senior Fellows on hold, Partnerships Advisor on hold	Hired Fellows and Senior Fellows, Data Literacy co-Leads, Predictive Analytics Lead), and data scientist for EAA project
Key Result 5.2: Clear internal processes	Result >	n/a	Google drive cleaned up (and ongoing); new Centre calendar developed for internal meetings, briefings, and events; Trello boards managed	Google Drive roll out
Key Result 5.3: Special projects properly managed and implemented	Result >	n/a	Dalberg data literacy research completed, TORs for RFQ of Centre and Fellow's bootcamp are developed. ECHO and EAA projects well managed.	Centre independent evaluation team identified, ECHO and EAA projects well managed.

Key Result 5.4: Clear strategy and forward planning	Result >	<i>n/a</i>	Budget and expenditures tracked and managed	Budget and expenditures tracked and managed
Key Result 5.5: Proper management of donors and UNOPS	Result >	<i>n/a</i>	EAA 4th quarter report delivered 21 Jan / MFA reports submitted late	MFA: Financial report (for 2018) submitted 28 June; City: Activity report and financial report delivered April 30; New FA signed with UNOPS

IV. Challenges

Due to insufficient funds to cover personnel costs for the full 12 months of the third year, consultant contracts were issued for nine months, from July 2019 to the end of March 2020, and with fewer days per month. Without an influx of additional funds, we will not be able to cover consultant costs from 1 April 2020. This is three months short of the MFA's three-year grant with the Centre and coincides with the beginning of the Centre's next phase programme. The projected shortfall for the period from April to June 2020 is close to \$650,000

V. Conclusion

The Centre had a successful start to 2019. We saw steady progress with the data services and network engagement workstreams and more significant progress with the data policy and data literacy workstreams. The business model of a geographically distributed team and implementation support from UNOPS continues to serve our operations well. We have field teams in Dakar and Nairobi, both of which are located within the OCHA regional offices. In Jakarta we are co-located and share resources with Global Pulse. And UNHCR hosts one of our team members in their offices at UN City in Copenhagen. Our global footprint continues to allow us to expand our reach, stay field focused, and build trusted relationships in the places where our partners are located.

In the next six months our priorities will include work on a new data security process on HDX to reduce the risk of sensitive data being exposed publicly. On Data Policy, we will continue to engage OCHA offices on the working draft of the Data Responsibility Guidelines as well as publish guidance notes on a number of challenging issues around data responsibility. We will deliver our first Data Literacy Foundation Programme to a cohort of 20 OCHA staff in September 2019 and will explore providing data literacy supplements for existing trainings, develop online learning resources, and provide advice on data literacy programme design. We continue to grow and remain engaged with our network of partners we plan to participate and organize a number of events. With the lead for the predictive analytics workstream starting in September, we plan to carry forward the work laid out in our Predictive Analytics Accelerator proposal.