

The Data Bulletin: Informing a Global Compact for Migration series aims to summarize in an accurate and accessible fashion existing evidence on migration to support the discussions and any follow-up activities of a global compact for safe, orderly and regular migration.

As part of the project "Support to IOM for the Global Compact for Safe, Orderly and Regular Migration," funded by the European Union, Data Bulletins outline the strengths and limitations of relevant migration data, and highlight innovative data practices which are pertinent to the global compact for migration. Data Bulletins reflect the collaborative nature of this process by including relevant contributions from different parts of IOM as well as other agencies and migration experts.

Marla Asis (Scalabrini Migration Centre, Manila) Alexandra Bilak (Internal Displacement Monitoring Centre, Geneva)

Marcello Carammia (European Asylum and Support Office, Malta)

Tony Luka Elumelu (ECOWAS Commission, Abuja) Andrew Geddes (Migration Policy Centre, European University Institute, Florence)

Yosr A. A. Ibrahim (Head of Sustainable

Development Unit, CAPMAS, Cairo)

**Diego Iturralde** (Statistics South Africa) **Juan Manuel Jiménez** (Organization of American States, Washington, D.C.)

Manuel Orozco (Inter-American Dialogue, Washington, D.C.)

Mustafa Hakki Özel (ILO, Geneva)

Jorge Martinez Pizarro (CELADE, CEPAL, Ecuador) Sonia Plaza (World Bank, Washington, D.C.) Jon Simmons (UK Home Office, London) Ann Singleton (University of Bristol / IOM's GMDAC, Berlin)

Keiko Osaki Tomita (Tokyo University of Foreign Studies)

Alessandra Zampieri (Joint Research Centre, European Commission, Ispra)

MANAGING DIRECTOR Frank Laczko (IOM's GMDAC, Berlin)

# Quantifying displacement and mobility

IOM's Displacement Tracking Matrix (DTM)

The Displacement Tracking Matrix (DTM)<sup>1</sup> is a system to track and monitor displacement and population mobility, provide critical information to decision makers and responders during crises, and contribute to a better understanding of population flows and needs.<sup>2</sup> Timely data and analysis are key for humanitarian actors to deliver prompt and targeted assistance. DTM was first conceptualized in 2004 to monitor internal displacement in Iraq and has since been adapted for implementation in over 70 countries. In 2017 alone, DTM tracked over 30 million individuals, including internally displaced persons (IDPs), returnees and migrants in a broad range of contexts, including conflict, natural disaster, complex emergencies and protracted crises (see Figure 1).

# DISPLACEMENT TRACKING AND MONITORING

DTM regularly collects and disseminates multisectoral information on populations on the move to support the coordination of humanitarian assistance through its four standard components: (i) mobility tracking, (ii) flow monitoring, (iii) registration and (iv) surveys. Given the complex settings in which DTM operates, it is possible – and often necessary – to combine and contextualize various components, tools and methods into an integrated approach. DTM thus takes on a flexible approach, and focuses on collecting operational and actionable data, often under inter-agency coordination mechanisms and in collaboration with various partners.<sup>3</sup> DTM data also feed directly into global level analysis, such as the Global Reports on Internal Displacement published by the Internal Displacement Monitoring Centre (IDMC).

Since 2014, DTM has supported the Government of Nigeria in establishing a comprehensive system to collect and disseminate data on IDPs, in collaboration with national agencies. Bi-monthly reports present key IDP and returnee figures, analysis of basic multisectoral needs, such as shelter and non-food items, water and sanitation for health (WASH) and food and nutrition, to inform the ongoing humanitarian operations.<sup>4</sup> Similar DTM operations have been rolled out in other countries, such as Afghanistan and Ethiopia. Also, as the Global Cluster Lead for Camp Coordination and Camp Management in natural disaster emergencies, IOM has been implementing DTM in different natural disaster settings, such as Nepal, following the 2015 earthquake, the Caribbean, following the impact of hurricane Maria, and Haiti after a 2010 earthquake displaced 1.5 million people. DTM has also proven to be highly effective in supporting countries to prepare for displacement

- <sup>1</sup> https://displacement.iom.int/nigeria
- Displacement Tracking Matrix Methodological Framework (2018). Retrieved from https:// displacement.iom.int/content/methodological-framework-used-displacement-trackingmatrix-operations-quantifying
- <sup>3</sup> For more on DTM partnerships please see page three of this Bulletin.
- <sup>4</sup> https://displacement.iom.int/nigeria



IOM's Global Migration Data Analysis Centre GMDAC

Issue No. 6 | JUNE 2018 | ISSN 2523-5060



#### Figure 1 – Global DTM implementation map 2017



crises through capacity-building activities, mapping of potential evacuation and displacement sites, and setting up mechanisms before a disaster occurs – for instance in Vanuatu, the Federated States of Micronesia and the Marshall Islands.

## **FLOW-MONITORING INITIATIVES**

DTM's flow-monitoring (FM) activities involve the collection of data on population movements at entry, transit and exit points, with the aim of improving the understanding of trends that are difficult to discern using traditional data sources. Information is collected on the direction of net flows, the size and paths of movements, the origin and destination of migrants, their reasons for moving, as well as migrants' needs and profiles.

FM was originally developed to track flows within countries experiencing internal displacement and was later expanded to capture information on flows between countries. FM exercises have been set up as part of the DTM programme in different areas, including in the Arab Peninsula, East Africa, Europe, the Horn of Africa, Libya and West and Central Africa, and have included partnerships at regional and country levels.

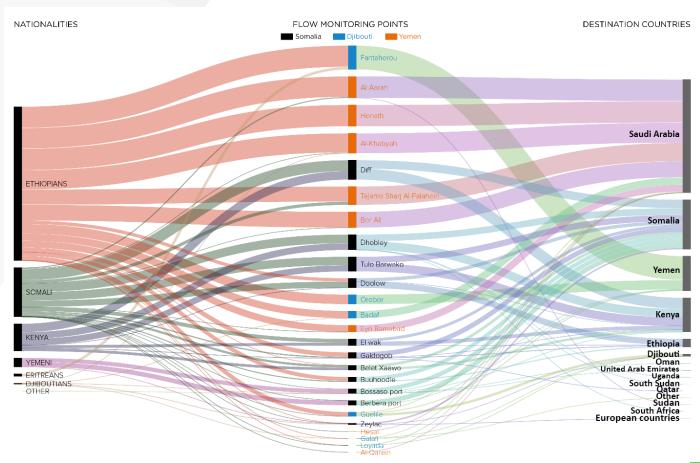
In Europe, FM was established in October 2015 as part of the response to a significant increase in migration flows and the need for reliable information for decision-making. Between January and November 2016, over 19,500 interviews were conducted by IOM field staff in various locations of entry, transit and exit, as well as at migrant accommodation and reception centres in Bulgaria, Croatia, the former Yugoslav Republic of Macedonia, Greece, Hungary, Italy, Serbia and Slovenia. Emphasis was placed on questions to identify human trafficking and associated forms of exploitation and abuse. In 2017, the DTM Mediterranean team gathered 9,483 FM surveys, covering more than 120 FM points in 17 different countries in the Mediterranean and Western Balkans, and produced analytical and statistical reports on a regular basis.

In the West and Central Africa region, FM activities started in 2012 following the displacement of populations from the North of Mali to Bamako. In 2015, FM activities were used to track movements in and out of Ebola-affected areas. Since 2016, flow-monitoring points (FMPs) have been set up in Mali and Niger to better understand migration movements to Algeria and Libya on the Central Mediterranean Route.

As of 2018, there are more than 20 FMPs in the region collecting data on migration flows. They are located in high-transit areas of the following seven countries: Burkina Faso, Chad, Guinea, Mali, Niger, Nigeria and Senegal. Data collected through these points help to identify the main routes and means of transport in the region and to inform information campaigns targeted at migrants. The data collected also help to identify migrants in vulnerable situations along these routes and inform protection and assistance interventions. Additional FMPs will be set up in West and Central Africa in 2018 to enhance tracking of migrants' profiles and experiences through dedicated sample surveys.

The three main axes of movement from the Horn of Africa are: 1) the Western–Northern route towards Libya or Egypt and (for some) onwards to Italy and other European countries; 2) the Eastern route towards Yemen and onwards to Saudi Arabia and the Gulf States; and 3) the Southern route to Kenya and onwards to southern Africa. Between June and December 2017, in close collaboration with national and local authorities, IOM monitored migration flows from the Horn of Africa towards the Arab Peninsula, which has been suffering from a severe humanitarian crisis since 2015, through a network of 25 FMPs, strategically positioned on the shores of Yemen, in Djibouti and in Somalia.

Figure 2 – Intended destination of migrants passing through flow-monitoring points in Somalia, Djibouti and Yemen, by nationality



# COMPREHENSIVE MIGRATION FLOWS SURVEY

Given the success of DTM's FM activities along the Eastern and Central Mediterranean routes and the need for even more detailed information, DTM developed an expanded Flow Monitoring Survey model, known as the Comprehensive Migration Flows Survey (CMFS). It consists of eight different thematic areas, covering six target populations, including potential migrants, migrants in transit, migrants in final destination, and migrants upon return.

Figure 3 -	Thematic	areas	covered	in	the	Comprehensive	Migration
Flows Surve	y (CMFS)						

<b>1.</b> Migrant profiles	<b>2.</b> Migration routes and trajectories	<b>3.</b> Resourcing the journey	<b>4.</b> Role of interme- diaries
<b>5.</b> Vulnerability factors in origin/transit/ destination countries	<b>6.</b> Migration drivers and decision- making	<b>7.</b> Role of diaspora	<b>8.</b> Migrants' perceptions towards Europe

The data collected from each population group allows for the construction of clearly defined demographic and socioeconomic migrant profiles, which include characteristics such as sex, marital status, age and education level, as well as mobility patterns and needs. The CMFS collects information on the decision-making process in the country of origin or habitual residence, background information on how the journey was funded, and the role of intermediaries and diaspora networks.

With an initial focus on migrants from Afghanistan and Pakistan, a total of 7,248 in-depth interviews were completed in 2016, followed by an in-depth analysis under each thematic area. In February 2017, the exercise shifted its focus to migrants from Ethiopia, Iraq, Nigeria, and Somalia, collecting data and information in countries of origin/return, transit and destination. The data and analysis aim to inform relevant decision-making processes and policy formulation for the benefit of migrants.

## PARTNERSHIPS

Collaboration with partners from various sectors plays a vital role in building and expanding DTM as an effective information management system in humanitarian crisis settings. Private sector partnerships, including with ESRI,<sup>5</sup> SAS,<sup>6</sup> and Deloitte<sup>7</sup> among others, have proven to be of significant value, bringing more knowledge, different perspectives, and advanced

<sup>5</sup> https://blogs.esri.com/esri/esri-insider/2016/12/18/mapping-migrationtrends-to-europe/

<sup>6</sup> www.sas.com/en\_us/customers/iom.html

<sup>7</sup> https://www2.deloitte.com/global/en/pages/about-deloitte/articles/iomdeloitte-humanitarian-innovation-program.html technology to support the DTM's development. Partnerships with universities and experts from academia, including the Brookings Institution,<sup>8</sup> Harvard Humanitarian Initiative,<sup>9</sup> and Georgetown University<sup>10</sup> support improved use and analysis of DTM data. Other important partnerships include joint work on displacement data analysis and the continued development of the global platform with the Centre of Humanitarian Data,<sup>11</sup> IDMC, and Flowminder.<sup>12</sup>

DTM data also feed directly into global level analysis. In its 2017 Global Report on Internal Displacement,<sup>13</sup> IDMC recognized DTM as an increasingly important source of displacement data at the global level.

## INNOVATION

DTM is continuously exploring and developing innovative practices to improve the effectiveness and efficiency of its data and analysis systems and tools, as well as to collect and share more accurate and timely information. Field data collection activities have leveraged mobile technologies and shifted to electronic forms. This has resulted not only in more costand time-efficient processes, but also in better data quality. Biometric registration systems, implemented in accordance with IOM's Data Protection Principles, has improved the accuracy of DTM data and reduced duplication.

- <sup>9</sup> https://hhi.harvard.edu/
- 10 https://isim.georgetown.edu/iom-idp
- 11 https://data.humdata.org/
- 12 www.flowminder.org/
- <sup>13</sup> IDMC GRID 2017, retrieved at http://internal-displacement.org/ publications/2017-global-report-on-internal-displacement

### **IOM's GMDAC**

In response to growing calls for better data on migration, and better use and presentation of migration data, IOM has created the Global Migration Data Analysis Centre (GMDAC).

Located in Berlin, Germany, the Centre aims to provide authoritative and timely analysis of data on global migration issues as a global hub for data and statistics on migration.

IOM's Global Migration Data Analysis Centre (GMDAC) Taubenstr. 20-22 | 10117 Berlin, Germany Tel.: +49 30 278 778 21

This issue of the Data Bulletin benefited from the support of IOM's Displacement Tracking Matrix.

gmdac.iom.int migrationdataportal.org DTM deploys Unmanned Aerial Vehicles (UAVs) to quickly and efficiently map and model IDP sites for better site planning and management. On the analysis side, DTM actively explores the use of predictive analytics and theoretical models to predict patterns of displacement during crisis.

Expanding partnerships and collaborations, consolidating and applying best practices and innovative solutions to refine the approaches and methods, and further exploring the use of advanced and predictive analytics models for better response, are also priority workstreams for global DTM development.

In the current era of human mobility, a regional perspective is required; crises often have direct implications beyond the borders of a country or region, presenting complex issues that require a solid understanding of regional and crossregional dynamics. DTM is expanding its regional capacities to respond to these challenges. To this end, a Regional Data Hub in Nairobi, Kenya has been established to support the monitoring and analysis of regional migration trends across the Horn of Africa, including Yemen and Sudan. The Hub aims to contribute to national and regional migration policy dialogues by harmonizing and integrating the multiple sources<sup>14</sup> of IOM's mixed migration data, providing up-to-date analysis of relevant trends and investigating the vulnerabilities of populations on the move. Similar expansions are also ongoing in other regions. Convergence and interoperability of data and analysis are key factors in generating an actionable evidence base and understanding mobility dynamics to inform decision-making and policy discussions.

<sup>14</sup> Such as through direct reintegration initiatives, assistance to vulnerable migrants, or at monitoring points along the migration routes.

### Contact

**Global DTM Support** dtmsupport@iom.int

Denis Kierans IOM's GMDAC dkierans@iom.int

Marzia Rango IOM's GMDAC mrango@iom.int

Graphic Design Roberta Aita IOM's GMDAC raita@iom.int

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Data Bulletin: Informing a Global Compact for Migration Issue No. 6 | JUNE 2018 | ISSN 2523-5060



International Organization for Migration 17 route des Morillons, P.O. Box 17, 1211 Geneva 19, Switzerland Tel.: +41 22 717 9111 • Fax: +41 22 798 6150 E-mail: hq@iom.int • Website: www.iom.int





<sup>&</sup>lt;sup>8</sup> www.brookings.edu/events/lessons-from-haiti-innovations-in-trackingand-housing-internally-displaced-persons/