27 May 2020
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Philip Tangermann

This webinar will start shortly.
Kindly mute your microphone and turn off your camera.
Population Movement in South Sudan and DTM’s Role in the COVID-19 Preparedness and Response
All four DTM components active in South Sudan
DTM has countrywide coverage of South Sudan through its Mobility Tracking programme.
New research finds 1.5 million internally displaced persons in South Sudan

South Sudan’s baseline on internally displaced persons (IDPs) has been reset from 1,829,223 individuals to 1,465,542 due to the culmination of an 18-month-long review and rationalization exercise between IDP datasets maintained by the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) and the International Organization for Migration's Displacement Tracking Matrix (IOM DTM).

“For the past 18 months, OCHA has been working closely with IOM DTM to thoroughly update South Sudan’s baseline data on IDPs,” said Steve O’Malley, Head of the South Sudan Office for...
Operations rely on a broad network of 800 enumerators and 2,000 key informants.
A young nation in perpetual crisis, at a key juncture in its transition out of civil conflict
Newfound peace but other displacement drivers remain or increase in intensity
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Monthly averages of IDP arrivals for a given period of analysis comparing conflict, communal clashes and natural disasters

- Conflict
- Communal Clashes
- Natural Disaster
- Unknown
Newfound peace but other displacement drivers remain or increase in intensity
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Protracted and new displacement. No linear growth in the number of returns.
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Need for balance between humanitarian response and transition and recovery programming

- Returnee Shelter
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Average Number of returnee arrivals per month within given period

- **Returnee Shelter**

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**Legend:**
- Monthly average # of returnees arriving from within South Sudan
- Monthly average # of returnees arriving from abroad

* Jan-Sept = Pre-ARCSS 2018 and Oct-Dec = post R-ARCSS 2018
A very mobile population in a country with little transport infrastructure
Porous borders facilitate circular migration. Movement profiles of IDP sites vary greatly.
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January - March 2020 movement profile

- Wau Collective Centres (n= 25,955 ind.)
- Wau PoC AA site (n=15,386 ind.)
- Malakal PoC site (n= 8,167 ind.)
- Bentiu PoC site (n=13,557 ind.)

Overall (n= 63,065 ind.)

- Same-day travel, not overnight: 83%
- Entry: Temporary travel, 1 night to >6 months: 9%
- Exit: Temporary travel, 1 night to >6 months: 6%
- New arrivals: 1%
- Intended permanent exit: 0%
Despite restrictions imposed in March by the government, cases have been increasing rapidly.
The COVID-19 outbreak compounded existing vulnerabilities across multiple dimensions.

- **792 confirmed cases as of 24 May**
- **8 deaths due to COVID-19**

- Limited access to health services
- Crowding in IDP camps hindering physical distancing
- Drop in oil prices affecting government budget

- Lack of ventilators and trained personnel
- Impact of mobility restrictions on trade and livelihoods
- Securitised government response to COVID-19

- Limited access to clean water and soap
- Supply constraints worsening food insecurity
- Ongoing displacement, esp. communal violence
Over one million IDPs and returnees live farther than 5km away from a functional health facility.

- **32%** of IDPs (536,882 individuals) and **37%** of returnees (502,042 individuals) live in settlements located farther than 5km from a functional health facility.

- **Largest absolute gaps** in Upper Nile (213,054 individuals), Jonglei (134,526 individuals) and Unity (134,259 individuals).

- **Highest relative need** in Upper Nile (46%), Warrap (44%) and Lakes (37%).

- In the **least served counties**, the vast majority of IDPs and returnees lack access: Guit (95.8%), Kapoeta East (89.2%), Pibor (86.3%), and Rumbek Centre (77.0%).

**IDP/returnee settlements >5km from a functional health facility**

The size of the purple markers is proportional to population.

Source: IOM DTM & WHO, 2020
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**Source:** IOM DTM & WHO, 2020
DTM began mapping cross-border flows of public health relevance as part of EVD preparedness

- DTM’s involvement in public health builds on the Population Mobility Mapping methodology developed in collaboration with IOM’s Migration Health Division
- In South Sudan, this was first implemented as part of EVD preparedness activities in response to the 2018 outbreak in DRC
- Flow monitoring has been ongoing at up to 21 locations on the borders with the Democratic Republic of Congo, Uganda and the Central African Republic
  - Activities began to scale down in March 2020
- The data was validated and contextualized through two participatory mapping exercises held in December 2019, which led to recommendations informing the 2020 National Preparedness Plan for EVD and related geographical prioritization
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The mapping of flows at risk was adapted and extended collaboratively for COVID-19.

Flow monitoring data collected in March at 39 locations, together with similar REACH and UNHCR data, was matched with UNICEF disaggregated case data for neighboring countries.

Incoming flows taken as indicative of risk of disease importation during the early stages of the outbreak:

- Large urban centres and trade hubs
- Areas of return in Unity
- Northern Bahr el Ghazal and parts of Warrap State with links to Khartoum
- Cross-border communities near affected areas in Uganda and DRC

The analysis helped inform geographical prioritization by COVID-19 coordination bodies and will be expanded to include internal movement.
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*Source: IOM DTM, UNICEF, UNHCR and REACH, 2020*
Cross-border and inter-state travel have been affected by restrictions imposed since 24 March.

- South Sudan imposed preventive mobility restrictions since the second half of March:
  - Border closure and restriction on inter-state travel
  - Closure of schools
  - Restrictions on public transport, closure of restaurants, limitations on gatherings

- Concerns related to the restrictions:
  - Undignified conditions in quarantine leading to escapes
  - Lockdown of Protection of Civilians sites
  - Arbitrary beatings
  - Impact on the livelihoods of cross-border and urban communities

- Localized movement by cross-border communities continued along informal routes, together with cargo routes

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Travel between South Sudan and Khartoum dropped, movement with Darfur less affected

Individual journeys surveyed at DTM Flow Monitoring Points in **March 2020**

- **No. individual journeys**
  - 100
  - 500
  - 1,000
  - 5,000

Local movement between Greater Bahr el Ghazal and Darfur less affected

Decrease along routes between Khartoum and South Sudan

Gap in coverage in Renk addressed in May with a new FMP
Supply routes and local movement continued while long-distance passenger travel dropped.

Individual journeys surveyed at DTM Flow Monitoring Points in **March 2020**

Individual journeys surveyed at DTM Flow Monitoring Points in **April 2020**

- Drop in passenger movement to Juba and long-distance travel between Uganda and South Sudan.
- Local movement by cross-border and refugee communities in Congo and, to a lesser extent, Uganda.
- Supply routes via Nimule from Kampala, Nairobi and Mombasa continued operating.
### Further restrictions on internal & cross-border movement

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<tr>
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<th>3 months (short term)</th>
<th>6 months (medium term)</th>
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<tr>
<td><strong>Drivers</strong></td>
<td>Mobility restrictions</td>
<td>Mobility restrictions relaxed</td>
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<td>Limited COVID-19 spread</td>
<td>COVID-19 in urban &amp; border areas (?)</td>
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<td>Economic scarcity → criminality</td>
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<td>Inter-group tensions</td>
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<td>Political instability</td>
<td>Delayed peace process</td>
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<td>Food insecurity (lean season)</td>
<td>Seasonal flooding</td>
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<td>Anti-foreign sentiment / access restrictions</td>
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<td><strong>Impact on mobility</strong></td>
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<td>Health-related displacement (?)</td>
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<td>Stranded migrants / returnees</td>
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<td>Long distance voluntary migration (-)</td>
<td>Natural disaster displacement (+)</td>
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<td>IDP and refugee returns (-)</td>
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<td><strong>Needs</strong></td>
<td>Restrictions &amp; disp. → Protection</td>
<td>Displacement → Protection, SFNI, WASH, Health, FSL</td>
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<td>Drop in cross-border/internal trade → FSL</td>
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<td>Health/WASH → Enabling internal/cross-border supply routes</td>
<td>COVID19 → Health/WASH → Enabling internal/cross-border supply routes</td>
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### Less restrictions on internal & cross-border movement

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<td>COVID-19 spread countrywide</td>
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DTM is using high-resolution satellite imagery to update enumeration areas in key urban centres.
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- Individual building footprints can be extracted from high-resolution satellite imagery using automated machine learning algorithms.

- DTM is using this process to derive enumeration areas (EAs) for major urban centres in South Sudan.

- Field assessments are carried out to rule out non-residential areas and capture thematic attributes about the EAs.
The imagery enables targeted analysis and household surveys of South Sudan’s urban population

- GIS analysis of the satellite imagery can reveal areas of high building density, helping to identify slums and other crowded areas that may be at higher risk of COVID-19.
- The EAs will be made available for partners and used to roll-out targeted household surveys:
  - in collaboration with WHO and WFP, DTM will roll out a combined epidemiological and multi-sector COVID-19 vulnerability study of Juba and other major urban centres.
  - with WFP, FAO, UNICEF, OCHA and REACH, DTM will deliver a multi-sector needs assessment of nine state capitals,
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Products and projects in the pipeline