Displacement Forecasting and Impact of COVID-19

U.S. National Academies of Sciences, Engineering, and Medicine

Virtual Stakeholder Meeting on Refugee Resettlement in the United States: The Role of Migration Research in Promoting Migrant Well-being During the COIVD-19 Pandemic DANISH REFUGEE COUNCIL

Foresight in Danish Refugee Council

Model

> Use for Strategic Planning

- COVID-19 Impact
- Next Steps

DRC **Forecasting Forced Displacement** using Machine Learning **OUTPUTS MACHINE LEARNING MODEL &** DATA DRC Test-cases in Afghanistan and **BAYESIAN NETWORK ANALYSIS** Myanmar show encouraging results orecasts ACLED letwork DANISH Freedom House REFUGEE UPPSALA UNIVERSITET Based on 25 years of 5 historical data, the model Data on the +120 finds patterns and learn indicators are all from from these to predict future open sources

Test-cases in Afghanistan and Myanmar show encouraging results



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Network understanding can be used to develop scenarios

Linkages between the different indicators in the framework has been established based on expert interviews and litterature review.

Bayesian Network Analysis determine whether those linkages can be found in the data and what the value of the linkages are i.e. if public institution quality decreases by x how will that impact rights and public services.

The model is generic and builds on historical data for 28 countries with a history of displacement

This informs scenario-building by showing how the various aspects are interrelated.



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> Model

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Engagement and use within the wider Humanitarian Community



OPE DSEG

 Engagement in relevant working groups in the sector to coordinate efforts



- Engagement with Centre for Humanitarian Data on peer review, content inputs, etc.
- OCHA ROAP discussion on use in HRP

DANISH

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- Joint scenario for NGO response in Syria
- Anticipatory financing mechanism in Afghanistan
- Internal displacement forecasting and modelling
- Watchlist of humanitarian crises



 Discussion on developing joint forecasting-pandemic model with Oxford, World Bank and IMF



- Collaboration on improvement of displacement data from UNHCR
- Discussion on Sahel forecasting

UN MIGRATION

 IOM West Africa office discussion on developing subnational displacement model for Sahel

Displacement Risk Scenario for Burkina Faso in 2025

- Economy: Economy will take a u-shpared recovery and bounce back to 2019 growth rates in 2022. Poverty is expected to be at a similar level in 2025 as in 2019. (ISS Scenario analysis)
- **Conflict:** Scenario A: Same level or slightly worse compared to current conflict conditions. Scenario B includes easing up on the conflict
- **Governance:** Potential window for positive democratic rotation. Worst-case scenario: constitutional reform reinforcing authoritarian power. Expectation is positive scenario where state legitimacy improves. Catastrophic scenario is foreseen with regards to inequalities, strong degradation. High number of displaced, deschooling on the rise, limited access to basic services for displaced persons, which will remain on the periphery of the cities. Human rights situation is also likely to deteriorate
- Food Security: Limited change/degradation, climate change will exacerbate current context.
- Vulnerable groups. Strong urbanization, poorly managed, pendulum movements, trauma those who have not experienced violence will remain scarred.



Scenario A sees an increased risk of both the current levels of displacement and the higher displacement bracket (>10k). In scenario B, the risk of displacement significantly decreases and the current and higher displacement levels becomes the least likely outcomes.

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COVID-19 Impact

• Next Steps

Impact of C19 hitting vulnerable groups hardest





COVID-19 Displacement Scenario particular severe in Sahel

%-point change due to COVID-19 in risk of large-scale displacement*

11.9 % 8-11.9<mark>4-7.9%</mark>0-3.9% <0%

* Developed using causality analysis model. Denotes the %-point change in like lihood of a country moving into a higher displacement bracket than their current position based on estimated impact of COVID-19. The impact of COVID-19 has been assessed based on desk-research using sources such as IMF, ACLED, V-DEM, FAO, INFORM, IOM, Human Rights Watch

Forecasting Impact of C19 in Sahel

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Approximately 1 million people where forecasted to be displaced in Sahel by end 2021. COVID-19 Scenario suggest that this number can increase to 1.9 million

- Foresight in Danish Refugee Council
- COVID-19 Impact

Next Steps

Foresight future



Develop the model for sub-national forecasting including shorter time horizons (3-6 month forecasts)



Exploring the use of satellite imagery to refine existing model and cover data gaps at sub-national level



Establishing partnerships with relevant actors to explore and document the added value of the tool



If you are interested in collaborating or accessing the online platform feel free

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