



Forced Displacement Literature Review

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Life Out of the Shadows: The Impacts of Regularization Programs on the Lives of Forced Migrants

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This paper **investigates the well-being effects of a regularization program in Colombia designed to facilitate the social and economic integration of Venezuelan forced migrants**. There are over 2.5 million Venezuelan migrants in Colombia. Through the *Permiso Especial de Permanencia* (PEP), the Colombian government regularized the status of 281,307 of these migrants. PEP provides beneficiaries with regular migratory status, work permits, access to private services, and inclusion in the social protection system (Sisbén). The Sisbén social registry is a proxy means-testing system used to target social programs and grants access to subsidized healthcare, early childhood services, and cash transfers. Venezuelan migrants without regularized status have access only to education and emergency health services, and they cannot work in the formal sector.

The analysis exploits the unexpected introduction of the PEP program, with ex-post eligibility determined solely by prior registration in a nationwide census of irregular Venezuelan forced migrants, the *Registro Administrativo de Migrantes Venezolanos* (RAMV). The analysis is based on a phone survey of 2,232 Venezuelan forced migrant households that arrived in Colombia between January 2017 and December 2018. The survey took place between October 2020 and February 2021, two years after the introduction of PEP. The sample is representative of Colombian cities with the highest concentrations of Venezuelan forced migrants, including Barranquilla, Bogotá, Medellín, and a fourth “region” comprising smaller cities.

The authors compared the wellbeing of migrants who arrived before and after the PEP eligibility date, focusing on various dimensions of socioeconomic well-being (such as consumption, income, and a health status index), access to services (including registration in Sisbén, access to subsidized healthcare, financial products, and government transfers), and labor market outcomes (such as employment status, holding a formal job, quality of employment, and having salaried employment). Additionally, the authors conducted a short-term fiscal cost-benefit analysis of the PEP program.

Main findings:

- **Forced migrants who participated in the PEP program experienced significant improvements in socioeconomic well-being, including higher consumption, labor income, and better health status.** PEP had a substantial positive impact on socioeconomic well-being, with a 1.65 standard deviation increase in the summary index. Specifically, PEP led to a 48 percent increase in per capita consumption, a 22 percent increase in labor income, and a 1.2 standard deviation improvement in the health status summary index for PEP migrants compared to non-PEP migrants.
- **The positive outcomes were largely driven by improved access to services, particularly the social protection system, subsidized healthcare, and financial services.** There was a significant positive effect of 38 percentage points (pp) on the services summary index, attributed to PEP’s impacts on access to the Sisbén proxy

means-testing system (57 pp), subsidized healthcare (27 pp), financial services (44 pp), and government transfers (22 pp).

- **Despite these improvements, the results indicate supply and demand constraints that prevent eligible migrants from fully accessing the services permitted by PEP.** At the time of the survey, 50 percent of PEP beneficiaries did not have access to Sisbén, 67 percent lacked access to subsidized healthcare, and 76 percent were unable to access the financial system. Additionally, only 14 percent of these migrants were receiving government transfers.
- **The fiscal costs of hosting a regularized forced migrant household are lower than those of an irregular one.** Non-PEP households have a net annual cost of US\$1,056, while the average PEP household has a net cost of US\$610, representing a 42 percent reduction in the net annual fiscal costs of hosting a Venezuelan forced migrant. This reduction is due to increased tax revenues from improvements in consumption and income, as well as lower costs of providing full health services to regularized migrants compared to emergency health services available to everyone.

The authors conclude that **regularization programs are highly effective in improving the welfare of undocumented migrants in developing countries.** Although most regularized migrants remained in the informal sector in the short term, **the PEP program led to lower fiscal costs and improved the public budget.** This was primarily achieved through increased consumption, which boosted VAT collection, and reduced healthcare costs. These positive effects are likely to compound in the medium to long term as migrants further integrate into the economy and society.

Distributional impacts of cash transfers on the multidimensional poverty of refugees: The Emergency Social Safety Net in Turkey

Matthew Robson, Frank Vollmer, Basak Berçin Doğan, and Nils Grede

World Development, Volume 179 (2024), Article number 106599

<https://doi.org/10.1016/j.worlddev.2024.106599>

This paper **analyzes the impact of the Emergency Social Safety Net (ESSN) cash program on the multidimensional poverty of refugees in Turkey.** Launched in 2016, the ESSN has become the largest humanitarian cash transfer program in the world. It provides monthly unconditional cash transfers via debit cards to poor and vulnerable refugees, reaching over 1.8 million individuals in Turkey.

The authors conduct a causal analysis of both the average and distributional impacts of the ESSN on the incidence and intensity of multidimensional poverty, decomposing effects across separate dimensions and indicators of poverty. The study employs a purpose-built Refugee Multidimensional Poverty Index (RMPI) that measures poverty across five dimensions—education, health, food security, income resources, and living standards—using twelve indicators.

The analysis is based on three waves of a repeated cross-sectional dataset (2018–2020) from the Comprehensive Vulnerability Monitoring Exercise (CVME). The sample includes 4,096 refugee households and is nationally representative of refugees using sampling weights. The treatment group consists of eligible applicants of the ESSN program who receive monthly cash transfers, while the control group includes non-applicants and pending applicants.

Main results:

- Nearly half (49.8 percent) of the refugee population in Turkey is identified as multidimensionally poor, facing deprivations in 28.7 percent of the weighted indicators on average. The Refugee Multidimensional Poverty Index (RMPI) value is 0.143, indicating that multidimensionally poor refugees experience 14.3 percent of the total possible deprivations.
- **The ESSN significantly reduced the incidence and intensity of multidimensional poverty among its beneficiaries**, lowering the incidence of poverty from 67.5 percent to 49 percent, reducing the intensity of poverty from 0.311 to 0.279, and decreasing the deprivation score from 0.261 to 0.151.
- **Significant reductions were found in the dimensions of education, health, food security, income resources, and living standards.** Significant reductions were found in deprivations related to school attendance, but there were no effects on improvements in the education of the household head. There was a significant reduction in the number of individuals not receiving treatment when sick, but no significant effect on the number of those reporting being sick. Deprivations in both the Coping Strategy Index (CSI) and Dietary Diversity Score (DDS) were significantly reduced. There was a reduction in precarious work; however, deprivation in “no income” increased, indicating that significantly fewer households had any members who worked in the last 30 days. Negative effects were observed for each of the four indicators within the living standards dimension.
- **The ESSN had the greatest impact on the most deprived**, with the effect size increasing from lower to higher quantiles of the deprivation score. The impact was larger for those at the 90th percentile compared to those at the 10th percentile. The ESSN significantly increased the probability of having lower deprivation scores (below 0.2) and reduced the probability of higher deprivation scores (above 0.2).
- **Reductions in the incidence of poverty are robust to the choice of cutoff threshold.** The ESSN caused a reduction in the number of households classified as poor at all possible threshold levels, with the most pronounced effect between the 20 percent and 30 percent thresholds. Regardless of the cutoff threshold or the quantile of deprivation chosen, the ESSN reduced or did not increase the number of individuals classified as poor and the level of deprivation.

The authors conclude that **the ESSN significantly reduced both the incidence and intensity of multidimensional poverty among its beneficiaries**. These reductions are primarily driven by improvements in indicators within the dimensions of food security, living standards, health, and education. The findings also suggest that multi-purpose cash transfer programs in humanitarian contexts can effectively address the simultaneous deprivations faced by refugees.

Cash transfers and micro-enterprise performance: Theory and quasi-experimental evidence from Kenya

Antonia Delius and Olivier Sterck

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This paper **examines the business and price effects of cash-based assistance provided to refugees in Kenya**. In 2018, the World Food Programme's *Bamba Chakula* (BC) program provided cash transfers to about 400,000 refugees living in the Kakuma refugee camp and the Kalobeyei settlement. Beneficiaries received monthly digital transfers ranging from US\$3 to US\$13, which were restricted to food items and could only be spent at licensed shops. Licenses for participation in the BC system were allocated to food retailers through a competitive selection process. The committee's primary objective was to ensure a diverse group of business owners, considering factors such as gender, origin, and the geographical location of their shops.

The authors leverage the quasi-random variation in the allocation of BC licenses and employ matching methods to compare the outcomes and practices of businesses with and without a BC license. They estimate the medium-term effects of obtaining a license on business revenue, profit, productivity, and prices. Additionally, they assess the medium-term effects on household consumption, asset ownership, and total household income of the applicants.

The analysis utilizes data provided by business owners who applied for BC licenses and a business survey conducted in the Kakuma refugee camp and the Kalobeyei settlement in October and November 2018, encompassing the entire population of refugee applicants for BC licenses. A total of 429 interviews were conducted with refugees who had applied for a BC license, of which 350 still owned a business. To examine the impact of the BC program on retail prices, the authors use survey data from a representative sample of households whose members arrived in Kakuma and Kalobeyei after March 2015, collected in July and August 2018. The authors also conducted focus group discussions and 122 qualitative interviews with business owners and their clients.

Main findings:

- **Applicants selected to receive a BC license benefit significantly from the cash transfer program.** Licensed applicants have monthly business revenues that are, on average, US\$3,784 (175 percent) higher than those of unlicensed applicants. Additionally, licensed applicants have monthly business profits that are, on average, US\$685 (154 percent) higher than unlicensed applicants.
- **Licensed applicants employ more workers, have higher labor productivity, and sell a larger variety of commodities.** On average, licensed applicants have at least 46 percent more employees than the control group. Labor productivity in the treatment group is, on average, 14 percentiles higher than in the control group, equating to at least a 70 percent increase in average value added per worker. BC businesses also offer a larger variety of goods.
- **BC licenses positively impact the living standards of successful applicants' households, including food intake, asset ownership, and household income.** Households of licensed applicants have significantly higher food consumption scores

(FCS), indicating greater food security and a more diverse diet. These households also possess more assets compared to those in the control group. There is no evidence of crowding out other income opportunities, as households with and without a BC license have similar income from other sources. The substantial effect on total household income suggests that unsuccessful applicants who do not own a business were unable to start another equally lucrative activity.

- **There is no significant effect on cash sales, indicating limited negative spillovers between licensed and unlicensed businesses.** BC shops are not more attractive for purchasing food items with cash. Rather, BC licenses may negatively affect cash sales for businesses that would exist without the BC program.
- **The large effects observed are partly due to the higher likelihood of successful applicants continuing to own a business, as well as the greater success of licensed businesses compared to unlicensed ones.** Successful BC applicants were 24 percentage points more likely to still own a business at the time of the survey. Licensed businesses have profits that are US\$526 (86 percent) higher than those of control group businesses. This difference is substantial, equating to about 18 times the average monthly wage of paid employees (approximately US\$29) and 39 times the value of monthly food assistance per refugee (approximately US\$13).
- **Licensed businesses charge higher prices than unlicensed businesses.** Prices for purchases made with cash are, on average, 16 to 30 percent lower than those made with BC mobile money. These price differences suggest that BC transfers have created a two-tier market structure, where BC businesses enjoy higher market power.

The authors conclude that **the restricted cash transfer program led to the creation of a parallel retail market where a limited number of businesses wield significant market power.** On one hand, the market for hard cash transactions remains relatively competitive, with approximately 1,400 shops offering low prices to attract consumers. On the other hand, the new market for digital cash transfers is confined to 252 licensed vendors who can charge higher prices. **Due to market imperfections, licensed businesses capture a portion of the benefits intended for the cash transfer program.** These findings underscore the drawbacks of establishing a less competitive, parallel market for distributing cash-based assistance and suggest that most refugees would benefit from policies aimed at addressing these market imperfections.

Forced migration and local economic development: Evidence from postwar Hungary

Daniel Borbely and Ross Mckenzie

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This article **investigates the effects of forced migration on sending economies, using the post-World War II expulsion of German minorities from Hungary as a natural experiment.** Following the war, the communist postwar government justified the expulsion of the German minority population as a means to hold them accountable for Hungary's wartime alliance with Nazi Germany, facilitate population exchanges involving Hungarian refugees

from neighboring countries, and reward their supporters with confiscated land and property. This organized resettlement led to the expulsion of nearly half a million German minority citizens, who were replaced by approximately 90,000 refugees from surrounding countries and about 180,000 internal settlers. These internal settlers were primarily unskilled or low-skilled agricultural workers from Hungary's Great Plain area.

The authors examine the effects of the postwar forced migration of German minorities, and subsequent resettlement, on township-level aggregate economic outcomes, in both the short and long-term. While 'German' townships were largely similar to other townships in terms of observable (pre-migration) economic characteristics, the authors still control for pre-migration levels of outcomes and covariates in each township, along with granular region fixed effects at the township or district area level. The study utilizes Census data and administrative records on the number of Germans deported from each township.

Main findings:

- **Postwar deportations of German minorities had a lasting impact on township level population density, implying persistent lower levels of economic activity.** Townships heavily affected by the expulsions of German minorities experienced significant reductions in population density compared to less affected areas, indicating reductions in economic activity for affected townships. These effects, while diminishing over time, remained large and significant several decades after the expulsions, suggesting lasting regional inequalities in economic development.
- **The lasting impact of forced migrations appears to be driven by sectoral shifts towards agriculture.** Forced migrations are associated with enduring sectoral changes in affected townships: while the national economy moved towards increasing the labor share in other sectors, townships with high forced migration increased their agricultural share. Although this effect diminishes over time, it persists for several decades and is observed in areas resettled by both refugees and internal settlers.
- **Forced migration and subsequent resettlement are associated with local, short-run reductions in educational attainment, suggesting that skills differences between displaced Germans and settlers were an important channel through which economic effects materialized.** The sectoral shift towards agriculture can be explained by the matching of jobs to the existing skill set of settlers, or, if settlers were unskilled, due to lower barriers to entry to agriculture compared to other sectors.

Overall, **forced migrations had a lasting negative impact on local economic development in affected townships, and led to fundamental changes in the skills composition and industry specialization of local economies.** Specifically, townships affected by forced migrations increasingly specialized in agricultural activities in subsequent decades, likely driven by skill differences between the expelled German residents and the settlers who replaced them. The authors conclude that forced migration can have detrimental effects on origin economies, even (or especially) when motivated by redistributive objectives. Additionally, organized and convergent resettlement to replace forced migrants may exacerbate some of these negative effects.

South-south refugee movements: Do pull factors play a role?

Mauro Lanati and Rainer Thiele

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This paper **examines the impact of destination country characteristics on south-south refugee movements between 2004 and 2019**. It aims to fill a research gap by analyzing movements to non-OECD countries, which host the majority of refugees globally. The study also explores the potential influence of OECD donor countries on refugee destination choices through their aid allocation decisions.

The authors employ a gravity model of international migration, including key potential drivers of bilateral refugee flows such as geographical factors (physical distance and a common border), cultural links (common language and common religion), existence of migrant networks, economic opportunities (proxied by growth rates, GDP per capita, population, and unemployment rates), availability of social services (proxied by school enrollment rates and number of hospital beds), the quality of political and economic institutions (a constructed index based on principal component analysis of World Bank indicators), and the provision of foreign assistance (per-capita foreign aid, disaggregated by social-sector and economic-sector aid).

The analysis covers 111 countries of origin and 117 countries of destination, all recipients of foreign aid, from 2004 to 2019. The analysis draws on refugee data from UNHCR, proxies for geographical and cultural proximity from CEPII's gravity database, conflict data from the Uppsala Conflict Data Program (UCDP) Monadic Conflict Onset and Incidence Dataset, foreign aid statistics from the OECD Creditor Reporting System (CRS) dataset, and other statistics from the World Bank.

Main results:

- **Refugees tend to move to safe countries with which they share a common border.** Distance plays a much less decisive role when cultural ties and network links are considered. The absence of conflict in the destination country is also a relevant pull factor. The significance of the conflict variable combined with the strong impact of a shared border suggest that refugees tend to move to safe neighboring countries.
- **Refugees tend to move to destinations with cultural ties, in particular a common religion.** Refugees tend to prefer destinations where the dominant religion is the same as in their home country, whereas sharing a common language is positively but insignificantly associated with refugee movements.
- **Refugees respond to the opportunities available at potential destinations once geographic proximity is accounted for, including income levels, diaspora networks, and availability of social services.** GDP per capita is a relevant pull factor; a 10 percent higher GDP per capita level at destination is on average associated with a 10 percent larger refugee population. The existence of diaspora networks is another strong predictor of destination choices. Additionally, proxies for the availability of education and health services (school enrolment rates and the provision of hospital beds) are positively and significantly associated with refugee movements.

- **There is a positive and significant association between social sector aid (particularly education) and refugee movements.** A 10 percent increase in aid for education would raise the refugee population in destination countries by slightly below 3 percent on average. Economic and governance aid do not act as pull factors for refugees, suggesting that improved social services rather than higher incomes constitute the main mechanism through which donors affect refugee movements.
- Large populations, high GDP growth, low unemployment, and high institutional quality do not have a significant effect on dyadic refugee flows. Additionally, there is no evidence of a direct effect of autocracy/democracy indicators on refugee movements.

The authors conclude that **refugees tend to move to safe neighboring countries but also positively respond to local pull factors such as relatively high per-capita income levels and the availability of education and health services when choosing their country of destination.** They suggest that donors could affect the direction of south-south refugee movements by investing in the social infrastructure of potential destination countries.

How Social Networks Shape Refugee Movements in Wartime: Evidence from the Russian Attack on Ukraine

María Hierro and Adolfo Maza

International Migration Review (2024)

<https://doi.org/10.1177/01979183241240712>

This article **investigates the factors influencing the destination choices of Ukrainian refugees in the European Union (EU) between March and December 2022.** The Russian invasion of Ukraine on 24 February 2022 led to the flight of more than 8 million Ukrainian refugees, the majority to European countries. This mass displacement triggered the activation of the Temporary Protection Directive 2001/55/EC (TPD), which provides a highly favorable environment for Ukrainian refugees, granting them the right to apply for protection in any EU country and to work and reside there until they can safely return to Ukraine.

The authors use a variant of a gravity model, where refugee flows are assumed to be directly proportional to the size of countries (measured by population) and inversely proportional to physical distance. The model incorporates social networks, distinguishing between pre-war communities of Ukrainian migrants settled in the EU before the hostilities and newly established refugees who benefited from Temporary Protection (TP) in the EU. It also includes control variables such as cultural proximity, expected earnings, risk of social exclusion, size of the informal sector, anti-immigration sentiment, and rule of law. The analysis focuses on the period between March and December 2022 and is also conducted for two subperiods (March–May and June–December), corresponding to the months before and after the summer season, coinciding with a relative stabilization of refugee flows.

The analysis draws on monthly refugee flow data from EUROSTAT, pre-war Ukrainian migrant stock data from the United Nations, and various socioeconomic and political indicators from EUROSTAT and the World Justice Project.

Main results:

- **Both pre-war Ukrainian communities and newly established refugee networks significantly influence refugee destination choices, but the influence of new networks is stronger than that of pre-existing ones as the war progresses.** Coefficients associated with prewar social networks and accumulated refugee migration are positive and statistically significant. The monthly flow of Ukrainian refugees into a country would increase by 0.250 and 0.356 percent as a result of a one percent increase in pre-war social networks and accumulated refugee migration, respectively.
- **The influence of social networks on refugees' destination choice persists throughout the war.** Neither coefficient changes significantly when moving from the first subperiod (March–May) to the second (June–December).
- **Factors such as the risk of social exclusion, anti-immigration sentiment and rule of law emerge in the second subperiod.** Refugees prioritize destination countries with low risk of social exclusion and anti-immigration sentiment, and with high rule of law levels.
- **Expected earnings and the size of the informal sector in destination countries are salient in both subperiods.** Coefficients do not vary significantly across the two subperiods, suggesting that that refugees make rational decisions even under extreme distress.
- **Distance did not exert a decisive influence on the initial flows of Ukrainian refugees.** Distance is not statistically significant in the first subperiod.
- **Cultural proximity is a decisive factor in the first subperiod.** Many refugees prioritized EU countries with close cultural ties during the first months of the armed conflict, which cancels out the role of distance since they are, in all cases, neighboring countries.
- **The importance of population grows over time.** The coefficient of the second period is higher than that of the initial period.

The authors conclude that **the size of pre-war communities of Ukrainian migrants and pioneer refugees benefiting from TP in the months following the outbreak of the war played a role in facilitating Ukrainians' migration.** The supportive role of social networks, as well as some economic factors (expected earnings and the size of the informal sector), exerted influence on refugees' destination choice since the outbreak of the war. While initial refugee flows prioritized cultural proximity and some economic factors (expected earnings and the size of the informal sector), other socioeconomic and political factors (risk of poverty and exclusion, anti-immigration sentiment, and rule of law) became salient only as the war progressed.

Who Hosts? The Correlates of Hosting the Internally Displaced

Leonid Peisakhin, Nik Stoop, and Peter Van Der Windt

American Political Science Review (2024), First View, Pages 1–16

<https://doi.org/10.1017/S0003055424000923>

This paper **investigates the factors that motivate people to host internally displaced persons (IDPs) in their homes, focusing on the Democratic Republic of Congo (DRC)**. The DRC has experienced prolonged conflict, resulting in the internal displacement of 5.7 million people, equivalent to approximately 6 percent of the country's population.

The authors investigate the correlates of hosting IDPs including empathy, co-ethnicity, connections to local authority figures, household wealth, security concerns, and religiosity. The analysis is based on a survey in 2019 of 1,504 households in 15 villages in eastern DRC that were likely to receive an influx of IDPs. The survey collected household characteristics and measured empathy using a modified basic empathy scale. Actual hosting behavior was tracked through reports from village chiefs over a 10-month period following the initial survey. In 2021, the authors conducted semi-structured interviews with five village chiefs and 150 randomly selected households in five villages to understand the matching process of IDPs with hosts. Additionally, the authors conducted an experiment with 1,500 participants, priming cognitive empathy through a perspective-taking exercise, and separately priming religiosity and obedience to authority.

Main results:

- During the 10-month period following the household surveys, 21 percent of surveyed households began hosting newly arrived IDPs who were strangers.
- **Households with higher empathy levels were more likely to host IDPs.** There was a 20 percentage-point difference in the likelihood of hosting between the most and least empathetic respondents.
- Households with connections to the village chief were more likely to host IDPs.
- **Ethnicity, wealth, religiosity, and expectations of strategic benefits from hosting IDPs were not correlated with hosting behaviors.**
- Households headed by men were more likely to host IDPs, suggesting that security concerns may play a role in hosting decisions.
- **There was limited support for the idea that past experiences of violence increase empathy.** While past violence was correlated with higher empathy, the effect was small.
- The interviews revealed that IDPs approached household heads more or less at random when seeking shelter, with no formal matching process. The village head was informed of newly arrived IDPs but did not arrange hosting. Empathy was confirmed as the main reason for hosting, while ethnicity did not play a significant role.
- Neither the perspective-taking exercise nor the appeals to religion or authority had a significant effect on hosting behavior compared to an untreated control group.

The study concludes that **empathy is the primary driver of hosting decisions, surpassing other factors such as ethnicity, wealth, and religiosity**. Consistent with the “altruism born from suffering” hypothesis, individuals who have experienced past violence tend to exhibit higher levels of empathy, although the effect size is small. Additionally, households headed by men or those with connections to local authorities are more likely to host IDPs, though these factors have a lesser impact compared to empathy. The authors also found that simple interventions aimed at increasing empathy levels, such as perspective-taking exercises or appeals to religion and authority, are not effective in the long term.

Exploring relationships between conflict intensity, forced displacement, and healthcare attacks: a retrospective analysis from Syria, 2016–2022

Maia C. Tarnas, Mohamed Hamze, Bachir Tajaldin, Richard Sullivan, Daniel M. Parker and Aula Abbara

Conflict and Health, Volume 18, Article number 70 (2024)

<https://doi.org/10.1186/s13031-024-00630-4>

This article **investigates the relationships between healthcare attacks, conflict incidence, and internal displacement in Syria** between 2016 and 2022. Over the 13 years of civil conflict in Syria, over 7.2 million people have been internally displaced, and 6.5 million refugees have fled the country.

The authors investigate the relationship between weekly healthcare attacks and general conflict levels, and then analyze the relationship between monthly healthcare attacks and population displacement. The study encompasses 22 districts within eight governorates: Aleppo, Damascus, Dara, Hama, Hassakeh, Homs, Idlib, and Rural Damascus. Most of the districts analyzed are in Idlib (5) and Aleppo (5) governorates. The period of analysis spans from January 2016 to December 2022.

The analysis draws on data on attacks on healthcare facilities from the Syrian American Medical Society (SAMS), conflict events from the Uppsala Conflict Data Project (UCDP), and monthly internal displacement data from the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) in Türkiye. Between 2016 and 2022, SAMS recorded a total of 541 attack events, comprising 650 attack rounds targeting 235 health facilities. These facilities include hospitals, primary care centers, ambulance networks, and mobile clinics. The types of attacks documented encompass aerial attacks, improvised explosive devices, theft, assault and arrest within healthcare facilities, and shootings.

Main results:

- **Conflict events were significantly associated with healthcare attacks in the same week.** This correlation between the occurrence of conflict and the targeting of healthcare facilities suggests that healthcare infrastructure is particularly vulnerable during periods of heightened violence.
- **Healthcare attacks were associated with increased risk of conflict events in the week following the attacks, even when accounting for the number of conflict**

events in previous weeks. Healthcare attacks showed a stronger association with subsequent conflict events than the number of previous conflict events, underscoring the destabilizing impact of such attacks on the broader conflict environment.

- **Healthcare attacks were associated with increased displacement up to three months following the attacks.** Specifically, four or more healthcare attacks in one month were associated with more than double the risk of displacement in that same month. In governorates experiencing a single healthcare attack, significant displacement began one month later.

The authors conclude that **healthcare attacks significantly precede an escalation of general conflict in the same area**, indicating that such attacks may serve as a catalyst for further violence. Additionally, **healthcare attacks are significantly associated with increased displacement for months following the incidents**, even when accounting for existing conflict levels. The authors suggest that by targeting healthcare facilities, warring parties can severely undermine individuals' ability to seek medical care, thereby compounding community vulnerability through reduced access to healthcare, increased disease incidence, and unmet medical needs. Furthermore, the destruction of healthcare infrastructure can be a decisive factor in individuals' decisions to flee, as the lack of medical services exacerbates dire living conditions, prompting displacement.

Ethnic diversity and conflict in sub-Saharan Africa: Evidence from refugee-hosting areas

Luisito Bertinelli, Rana Cömertpay, and Jean-François Maystadt

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<https://doi.org/10.1016/j.jdeveco.2024.103393>

This article **examines how forced migration affects ethnic diversity and conflict in Sub-Saharan Africa.**

The authors exploit annual variations in the presence of refugees to approximate the resulting changes in the diversity of refugee-hosting areas in 23 countries in sub-Saharan Africa between 2005 and 2016. The analysis is based on individual data on ethnicity from Afrobarometer between 2005 to 2016 (covering a sample of 5194 clusters and 76,518 individuals in 23 countries in sub-Saharan Africa), data on the location and composition (by country of origin) of refugee camps from UNHCR (covering 172 camps located at a maximum distance of 80 km from the 5194 clusters), data on the ethnicity of refugees from the 2019 Ethnic Power Relations - Ethnicity of Refugees (EPR-ER) dataset, and data on the incidence and intensity of conflict from the Armed Conflict Location and Event Data (ACLED).

The authors construct two standard measures of ethnic diversity: indices of ethnic fractionalization (EF) and ethnic polarization (EP). Ethnic fractionalization measures the probability that two individuals drawn at random from society belong to two different ethnic groups, and thus increases with the number of ethnic groups present. Ethnic polarization captures antagonism between individuals and is maximized when society is divided into two equally sized and distant ethnic groups.

Main results:

- **Refugees per se do not impact conflict likelihood.** On the contrary, there is a negative correlation between the presence of refugees and violent conflict.
- **There is a positive effect of ethnic polarization on the intensity and frequency of conflict.** On average, the intensity and frequency of violent conflict increase by 9 percentage points and 3.6 percentage points, respectively, following a refugee-induced increase in polarization by one standard deviation.
- **Refugee-induced fractionalization tends to decrease the risk of conflict.**
- Effect sizes are comparable in magnitude to other major determinants of conflict, namely the role of economic shocks (often associated with climatic shocks), natural resources, and price shocks.

The authors conclude that **refugees may increase conflict when their presence serves to intensify intergroup antagonism in communities that are already polarized.** It is therefore important for policymakers and practitioners to consider that the risk of violence increases when refugees exacerbate polarization between a few large groups.

Remote sensing insights into land cover dynamics and socio-economic Drivers: The case of Mtendeli refugee camp, Tanzania (2016–2022)

Remote Sensing Applications: Society and Environment, Volume 36 (2024), Article 101334

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This paper **estimates the environmental impact of the Mtendeli Refugee Camp in Tanzania.** Located in the Kigoma region in north-western Tanzania, the Mtendeli Refugee Camp was one of three camps established to manage the influx of Burundian refugees. The camp was opened in 2016 to accommodate 40,000 refugees transferred from the Nyarugusu and Nduta camps. By early October 2016, the camp had exceeded its capacity, housing over 50,000 refugees, and was subsequently closed to new arrivals. The camp was closed in December 2021, with the remaining refugees either repatriated to Burundi or relocated to the neighboring Nduta camp.

The authors employed a combination of remote sensing data and qualitative social research methods. High-resolution satellite data from Sentinel-1, Sentinel-2, and Landsat-8 were used to analyze land use/cover (LU/LC) changes. The WorldCover (2020) database served as the initial reference for classifying LU/LC, with local experts assisting in adapting class descriptions to regional characteristics. Machine learning algorithms were applied to conduct a change analysis of LU/LC within the camp and at distances of 0–5 km, 5–10 km, and 10–15 km outside the camp, focusing on the periods 2016–2021 and 2021–2022. The changes in LU/LC areas were compared with average annual refugee population data from UNHCR factsheets. The results were validated through key informant interviews with academics and representatives from local and international NGOs.

Main findings:

- **The reduction in tree cover between 2016 and 2017 was primarily due to clearing activities for setting up the Mtendeli Refugee Camp.** The most significant increase in the camp area occurred in 2017, correlating with a reduction in forest cover. The transition from cropland and shrub to artificial surfaces primarily happened within the camp area until 2021, driven by the camp's development.
- **Natural vegetation classes, particularly shrubs and trees, decreased around the camp until 2020.** The most significant transition involved converting shrubs, grassland, and tree cover into croplands. The decrease in tree cover affected 6 percent of the studied area. Some regrowth in natural vegetation was observed between 2020 and 2021. The intensity of land cover changes decreased with distance from the camp.
- **Following the closure of the camp, a significant portion of the camp and its immediate surroundings transformed from cropland into grassland and shrubs.** In 2022, a new class, 'managed woody vegetation,' emerged, which, along with tree cover, shrub, and grasslands, constituted almost 80 percent of the terrain. The increase in natural vegetation affected almost 50 percent of the camp area and 15 percent of the closest surrounding areas.

The study concludes that the reduction in tree cover between 2016 and 2017 was primarily due to clearing activities for setting up the Mtendeli Refugee Camp. The **high demand for fuelwood and increased agricultural activity driven by the influx of refugees were major contributors to deforestation and land cover changes in the areas surrounding the refugee camp.** The intensity of these changes decreased with distance from the camp. The successful implementation of environmental restoration programs in the former camp area is evidenced by the emergence of managed woody vegetation by 2022.