



What Is the Link Between Hunger and Migration?

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We recently published a report that found that it would cost on average an extra USD 11 billion per year on top of current public spending between 2015 and 2030 to largely end hunger, part of Sustainable Development Goal (SDG) 2 (Laborde, Bizikova, Lallemand, & Smaller, 2016). We estimated that donors need to provide USD 4 billion of the total, and the remaining USD 7 billion needs to come from poor countries themselves. But what is the best way to spend the extra money? And will ending hunger also help resolve other global challenges?

In the context of the current refugee crisis—and the rhetoric surrounding international migration—we investigated how international migration is affected by economic growth, hunger and increased agricultural productivity.¹ The goal was to determine whether investments to reduce hunger had any impact on migration levels.

We found that economic growth was the strongest driver influencing migration. We concluded that donors seeking to help people access economic opportunities in their own country should focus on investing in agriculture and food systems beyond the farm level. There was no discernible relationship between hunger levels and migration. And we found that investments that boost agricultural productivity alone can reduce farm jobs, and, in some cases, result in increased migration. Transforming agriculture along the whole value chain, improving market integration and developing rural economies are key to addressing migration.

Migrants Versus Refugees

The Office of the UN High Commissioner for Refugees (UNHCR) (2016), defines refugees as “persons fleeing armed conflict or persecution.” Refugees are defined and protected in international law. The 1951 Refugee Convention and its 1967 Protocol (as well as other legal texts, such as the 1969 Organization of African Unity (OAU) Refugee Convention) are the cornerstone of modern refugee protection. According to the UNHCR (2016), “[m]igrants, on the other hand, choose to move not because of a direct threat of persecution or death, but mainly to improve their lives by finding work, or in some cases for education, family reunion, or other reasons.”

Migration caused by poverty is the focus of this paper. The relationship between hunger and migration has been debated in the literature, which found that food insecurity is one of the dimensions influencing migration (FAO, 2016; Black et al., 2011). Furthermore, environmental and financial shocks that reduce access to food and increase food costs, coupled with weak institutions and a lack of employment opportunities, also contribute to migration (Luginaah et al., 2009; Deshingkar, 2012; Warner & Afifi, 2014; Schmook & Radel, 2008).

Close to 90 million people migrated from their country of birth between 1990 and 2015. There was a significant acceleration in migration between the period 2005 and 2010 (Figure 1). The number of migrants from Africa and the Middle East more than doubled when comparing the period 2000–2005 to the period of 2010–2015, while the number of migrants from Latin America was halved in the same periods. The decrease in the flow of migrants from Africa between 1995 and 2000 is in large part a result of people returning to Rwanda after the genocide.

¹ International migration is defined as the movement of a person or a group of persons across an international border, outside of their birth country. This could include countries in vicinity to the birth country as well as long-distance migration.

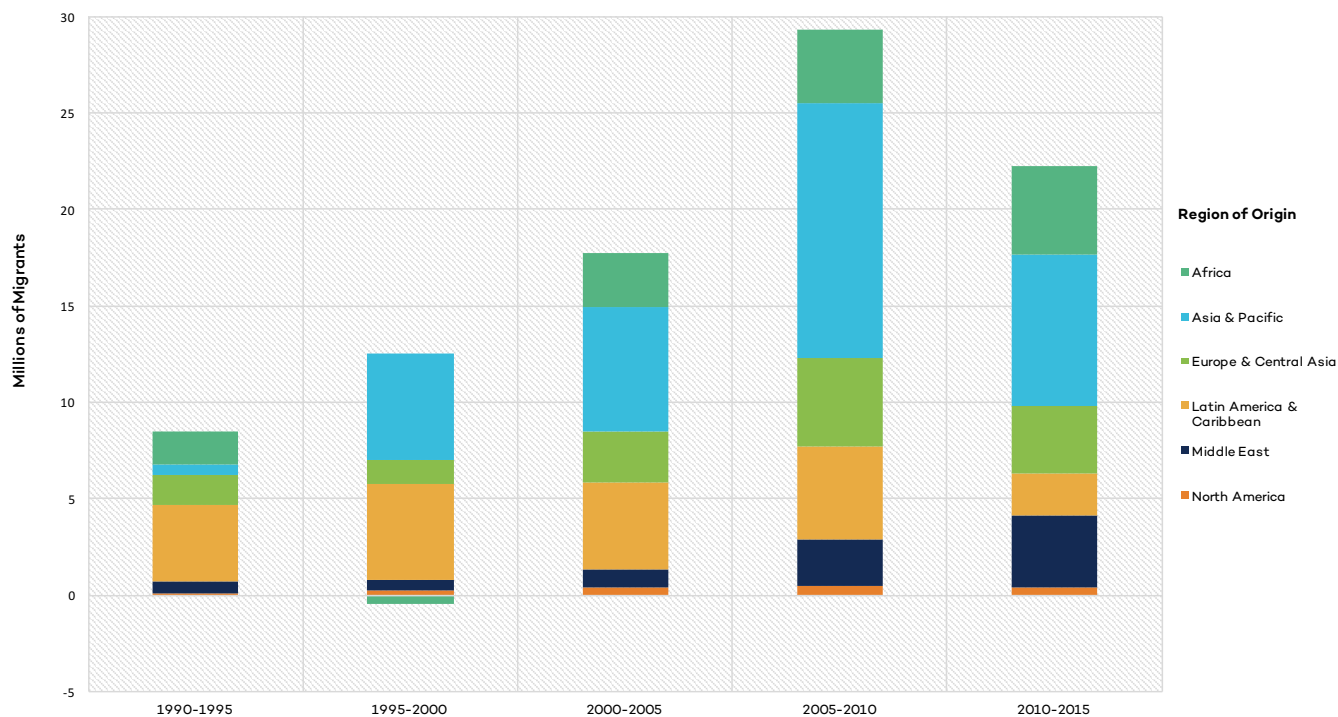


Figure 1. Change in Number of Migrants (millions) between 1990 and 2015 disaggregated by migrant's region of origin.

Source: World Bank (2017) and UN DESA (2015, revised version).

Methodology

We used econometric analysis to better understand the relationship between public interventions to reduce hunger and changing levels of migration. We analyzed changes in international migration flows from 1990 to 2015.²

We measured the impact of three variables on international migration in particular: hunger levels, agricultural productivity and per capita gross domestic product (GDP).³

While this work does not provide a final answer to the complexities linking international migrations and economic development, it illustrates the importance of looking beyond simple correlations to examine the diversity of issues at stake. Detailed econometric results are available in an electronic appendix.



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² The flow of migrants is measured as the variation in the number of migrants (stocks) over a period of five years e.g. from 1990 to 1995, 1995 to 2000, 2000–2005, 2005–2010 and 2010–2015.

³ Other control variables include population and political instability.

Findings

1. Economic Growth Can Reduce Migration

First, we found a statistically significant relationship⁴ between an increase in GDP and lower levels of migration, both at a global level and in Africa in particular. This result is illustrated by the situation of African countries with strong economic growth. In most cases, the African countries that experienced a GDP increase of more than 25 per cent saw an absolute decrease in the number of migrants. In countries with no or very little increase in GDP there was increased migration (see Figure 2).

But the relationship is not always straightforward. In some countries, we observed significant GDP growth coupled with increasing numbers of migrants. For example, for the period between 2000 and 2005, both Equatorial Guinea and Nigeria saw per capita GDP increase by over 60 per cent, and both saw migration levels increase by 30 per cent. These types of situations can be explained when GDP growth comes from oil, gas or mineral revenues that are not always beneficial to poor and hungry households (De Haan, 2009; Clemens, 2014).



Figure 2. Relationship between growth of GDP per capita and migration in African countries (1990–2015 in five-year increments).

2. There Is No Clear Relationship Between Hunger and Migration

We found no discernible relationship between hunger levels and migration after controlling for economic development and political stability, two key drivers for food security. This is a significant finding since it means that solving the hunger problem alone (for example through cash transfers and food stamps) will not directly impact international migration. Instead, it depends on how we invest in reducing hunger and how multiple drivers will be addressed.

⁴ Estimated elasticities between -0.2 and -0.5 implying that an increase of 1 per cent in GDP per capita, evaluated in parity of purchasing power, reduces the number of migrants by 0.2 to 0.5 per cent.

Figure 3 illustrates the lack of a direct relationship between hunger and migration. Countries are scattered in all four quadrants, meaning that in the group of countries with increased migration levels, some experience a reduction in hunger levels and others experience a rise. Even in the top left quadrant—the one with the most countries—the results are scattered. It could imply that higher levels of hunger are associated with higher levels of migration, but because the observations are scattered, there is no discernable relationship.

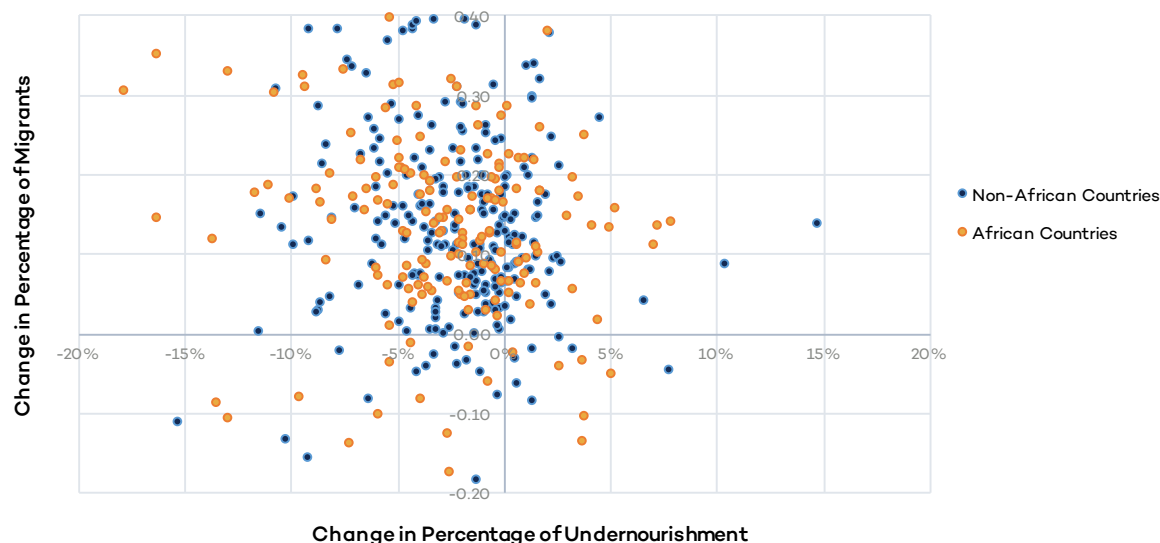


Figure 3. Relationship between undernourishment and migration (1990–2015 in five-year increments).

3. Improving Agricultural Productivity Alone Will Not Reduce Migration

We also found no discernible relationship between increasing agricultural productivity (measured in terms value of production at the farm level or in physical yields) and migration. In Figure 4, countries are scattered in all four quadrants, suggesting that there is no relationship between decreasing or increasing levels of agricultural productivity on the one hand, and increasing or decreasing levels of migration on the other. Even in the top right quadrant the results are scattered. This quadrant has the most countries, which could imply that increased productivity is accompanied by increased migration, but because the observations are scattered, it means there is no discernible relationship.⁵



⁵ As discussed above, this relation becomes significant only if we review the impacts over time, not represented in the figure.

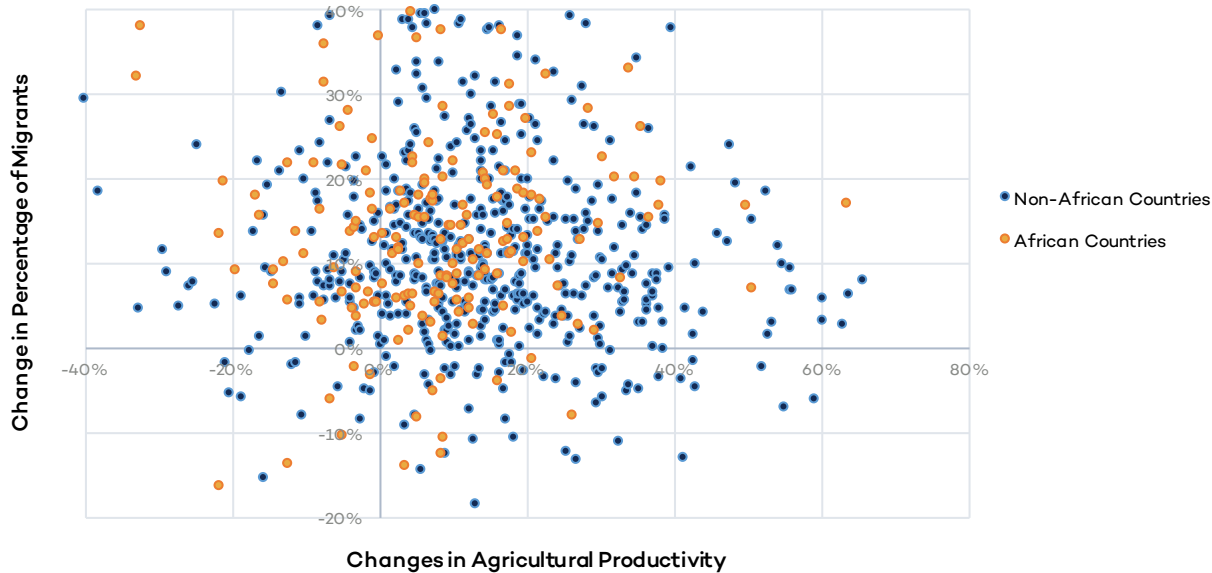


Figure 4. Relationship between agricultural productivity and migration (1990–2015 in five-year increments).

What Are the Implications of These Findings?

The three findings together are important. They unlock the answer to the mix of interventions needed to simultaneously end hunger and provide economic opportunities for people in their country of birth. Our analysis of the impact of GDP growth on migration shows that it is critical to generate enough economic opportunities to enable people to remain in their country of birth. Our analysis of the impact of reducing hunger and improving agricultural productivity shows that focusing on a few SDG 2 targets in isolation, such as reducing hunger or increasing agricultural productivity, will not reduce migration levels. The key is to link investments in reducing hunger and increasing productivity to broader economic growth.⁶



Therefore, the key ingredient is to provide economic opportunities to people in rural areas beyond the farm level and increase investment in off-farm activities. Indeed, per capita economic growth and correlated productivity gains are key to limit international migration. At the same time, improvements limited to farm-level activity will not produce such effects and may in fact lead to the opposite. Agricultural technological innovations have to be translated into positive economic outcomes for poverty reduction (SDG 1) and decent work (SDG 8). These other goals contribute to new job opportunities along agricultural value chains and improved market integration. Public and private investments that move in this direction will allow rural areas to be at the heart of both ending hunger and reducing migration.

⁶ In the econometric analysis, we also find that increased demographic pressure and decreased political stability boost migratory flows and should be considered in the design of interventions.

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References

- Black, R., Adger W. N., Arnell N.W., Dercon S., Geddes, A. & Thomas., D. (2011). The effect of environmental change on human migration. *Global Environmental Change* 21, S3–11.
- Clemens, M. (2014) *Does development reduce migration?* (Working Paper 359). Washington, DC: Center for Global Development. Retrieved from https://www.cgdev.org/sites/default/files/does-development-reduce-migration_final_0.pdf
- De Haan A. (1999). Livelihoods and poverty: the role of migration. A critical review of literature *Journal of Development Studies*, 36, 1–47.
- Deshingkar P. (2012). Environmental risk, resilience and migration: Implications for natural resource management and agriculture. *Environmental Research Letters*, 7(1), 1–7. Retrieved from <http://iopscience.iop.org/article/10.1088/1748-9326/7/1/015603/pdf>
- Food and Agriculture Organization of the United Nations (FAO). (2016). *Migration, agriculture and rural development*. Rome: FAO. Retrieved from <http://www.fao.org/3/a-i6064e.pdf>
- Laborde D., Bizikova, L., Lallemand, T., & C. Smaller (2016). *Ending hunger: What would it cost?* IISD & IFPRI. Retrieved from <http://www.iisd.org/sites/default/files/publications/ending-hunger-what-would-it-cost.pdf>
- Luginaah, I.N., Weis, T., Galaa, S., Nkrumah, M.K., Benzer-Kerr, R., & Bagah, R. (2009). Environment, migration, and food security in the Upper West Region of Ghana. In I.N. Luginaah & E.K. Yanful (Eds.), *Environment and health in sub-saharan Africa: Managing an emerging crisis* (pp. 25– 38). London: Springer.
- Office of the UN High Commissioner for Refugees (UNHCR). (2016). *UNHCR viewpoint: ‘Refugee’ or ‘migrant’ –Which is right?* Retrieved from <http://www.unhcr.org/news/latest/2016/7/55df0e556/unhcr-viewpoint-refugee-migrant-right.html>
- Schmook B., & Radel C. (2008) International labor migration from a tropical development frontier: globalizing households and an incipient forest transition. *Human Ecology*, 36, 891–908.
- United Nations, Department of Economic and Social Affairs (UN DESA). (2015). *Trends in international migrant stock: The 2015 revision* (United Nations database, POP/DB/MIG/Stock/Rev.2015). New York: UN DESA. Retrieved from <http://www.un.org/en/development/desa/population/migration/data/estimates2/estimates15.shtml>
- Warner, K., & Affi, T. (2014). Where the rain falls: Evidence from 8 countries on how vulnerable households use migration to manage the risk of rainfall variability and food insecurity. *Climate and Development*, 6, 1–17.
- World Bank. (2017). Development indicators. Washington DC: World Bank. Retrieved from <http://data.worldbank.org/data-catalog/world-development-indicators>

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