

Migration—the choices we face

More than 1 million refugees and migrants arrived in Europe in 2015, and nearly 390,000 more in 2016, many fleeing conflict in the Middle East and North Africa. European leaders have often accommodated the migrants with admirable generosity, even while facing stiff political opposition. Yet, if developed countries focus only on immediate domestic impacts of mass migration, they will miss a critical point: When thousands of people, including many researchers, leave their home countries, the exodus perpetuates instability in those countries and damages prospects for future development.

Before the Syrian conflict began in 2011, the country had 31,000 doctors. Today, roughly half are gone, many scattered to adjacent countries, Europe, and North America. Uncounted thousands of scientists, engineers, and advanced students from across the region have joined them. How can nations rebuild and progress when much of their scientific workforce has fled? How can they hope to raise farm output, improve public health, or prepare for natural disaster?

This core dilemma of migration will confront leaders of the G7 developed nations when they convene 26 to 27

May. Sustained development in poor countries is essential to easing migration, but developed countries have an uneven record in making necessary investments. Today, the scale of migration is unprecedented and the needs are more urgent. Mass migration is emerging as a permanent feature of geopolitical stress and global change.

The United Nations (UN) High Commissioner for Refugees reports that, at the end of 2015, nearly 41 million people were internally displaced, while almost 25 million were refugees or asylum-seekers. They are driven from their homes by conflict, economic insecurity, climate disruption, or a combination of these. Migration can destabilize adjacent countries, which are often economically and politically vulnerable. But political tension and xenophobia also reflect the power of migration to disrupt countries in North America, Europe, and Australia.

Sub-Saharan Africa illustrates choices confronting policy-makers. From one perspective, it is a time of optimism: Economic growth is robust. Hunger is in retreat. Life spans are on the rise. A building boom in new universities shows that leaders understand the power of knowledge—especially science and technology—to drive growth. Still, sub-Saharan Africa remains desperately poor. Political instability is widespread. Many universities lack qualified faculty. Population will grow from 1.2 billion today to a projected 2.5 billion by 2050. If Africa cannot grow and develop fast enough to provide education and jobs for its young people, then millions may see migration as their best option.

The UN Sustainable Development Goals were created in part to address such issues. But none of the Least Developed Countries can achieve this growth and development without partners. It is thus an acutely important moment for the G7 countries—and science is more capable than ever of providing support.

The World Academy of Sciences, and other academies and organizations that support at-risk scientists, can offer fellowships, training, and resources so that refugee scientists can contribute to their new countries and someday help to rebuild their home

countries. Social scientists can provide vital research on migration, from drivers to integration and financial impact. Science diplomacy, crucially, must help bring countries together for cooperative efforts. And building science is a focus of aid programs advanced by the European Union, and by countries such as Germany, the United Kingdom, Sweden, and Italy.

But developed countries are not alone in this mission. Nations of the South share responsibility, and migration should be taken up more energetically by the G20 countries, including Brazil, China, India, and South Africa, which convene in July. Researchers in even the poorest countries have a direct interest in migration, and an increasing capacity to contribute to solutions.

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