



EDITORIAL

OUR OBLIGATION TO DISPLACED SCIENTISTS



▲ Romain Murenzi,
TWAS Executive Director

Syria, Afghanistan, Yemen, Iraq – in these countries, violent conflict and insecurity in recent years have driven millions of people from their homes. Each has its own history, its own political and cultural dynamics. But in each one, and in many other troubled countries, circumstances drive people to a difficult conclusion: that life at home poses intolerable risks. And so they leave, joining a stream of refugees and displaced people that today is unprecedented in the years since World War II.

They arrive in Jordan or Lebanon, or in Italy or Germany or Canada. They worry about how they will eat, where they will sleep, where they will work. Sometimes they are welcomed, but often their new neighbours have their own worries – about the spread of conflict or about terrorism, about how the newcomers might change their home culture. On all sides, there is great uneasiness.

In the North, and even in countries adjoining the war zones, there are misconceptions about those who are seeking refuge from war. We tend to see them simplistically. In fact, though, there is a spectrum of migrants. While some are poor and have limited education, others have skills and rich experience. Some are scientists and engineers, doctors and nurses, science teachers and promising science students.

At TWAS, we count those people in the broad scientific community as members of *our* community, and we see it as imperative to understand their experiences and needs. Forced departure from their home countries can seem like a one-time disruption, but in fact the repercussions can last years, or even generations. And the costs to the individuals and their countries can be enormous.

Consider the cost of educating one PhD-level scientist. Countries such as Syria and Iraq have had schools and universities that were the envy of their neighbours; the schools produced a capable corps of researchers and doctors. For

each individual scientist, the cumulative costs of education and training amounts to tens of thousands or even hundreds of thousands of dollars. If half of a country's scientific workforce flees, that investment is compromised. The benefits go to a new country, or they are lost altogether.

When the conflict ends and the time comes to rebuild, the country will have lost a generation of trained scientists and a generation of students. This will cripple the recovery, and the costs will be compounded. Without a strong science sector to support economic growth development, there will be fewer opportunities for everyone. Poverty will be perpetuated. Instability will persist. More people will leave. We see a similar pattern rising from other conflicts in the global South – for example in Venezuela, Mali, the Central African Republic and South Sudan. And it affects not just the country, but also the region and the world.

Confronted by these circumstances, TWAS has focused intently in recent months on the challenge of displaced scientists. Thanks to the Swedish International Development Cooperation Agency (Sida), the Kuwait Foundation for the Advancement of Sciences (KFAS), the Bibliotheca Alexandrina and others, we have been able to provide support to scientists in the region. We have been able to connect with them, to aid their work and to tell their stories.

In just the past few years, we have provided fellowships to displaced scientists. Yemeni medical researcher Fathiah Zakham, after enduring terrible challenges at home in Yemen, recently won the TWAS-Fayzah M. Al-Kharafi Prize for women scientists from S&T-lagging countries; today she has a fellowship in Switzerland. Planning is now underway to bring the most promising displaced scientists into our Young Affiliates programme.



Harnessing Science to Help Refugees

An estimated 80 million people around the world have been displaced in the wake of violence and conflict, driven from their homes and in many cases their countries. What can scientists, engineers, and health professionals do to support these people?

And how can they help their colleagues who have been displaced? In December the National Academies' Committee on Human Rights held a symposium to explore these questions. In his keynote address, former United Nations Deputy High Commissioner for Refugees Alexander Aleksovich explained that one of the biggest challenges to the resettlement of many refugees is their skills. Profoundly often displaced for political, ethnic, religious or other reasons, they are often unable to fully participate in their new location. Some of the panel discussions that followed shared

into how technology can help respond to challenges linked to displacement, including helping refugees move fully and participate in their new countries. An organization called Partnerships for Resettlement is developing a map that

connects scientists and engineers with organizations that need their skills. In his keynote address, former United Nations Deputy High Commissioner for Refugees Alexander Aleksovich explained that one of the biggest challenges to the resettlement of many refugees is their skills. Profoundly often displaced for political, ethnic, religious or other reasons, they are often unable to fully participate in their new location. Some of the panel discussions that followed shared

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Migration—the choices we face

More than 1 million refugees and migrants are trying to leave their homes in 2016, and more than 200 million people live in the world's poorest nations. Many of these people have fled their homes in search of safety and a better life. But what choices do they have? In this special issue, we explore the choices we face as a global community in the face of mass displacement.

ISSUES & EVENTS

Displaced scientists strive to restart professional lives in new lands

Record numbers of scientists are fleeing persecution and conflict. Most universities and communities can benefit from their talents.

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AL-FANAR MEDIA

فيلم لتوثيق حياة باحثين عرب في المنفى

فيلم وثائقي يروي قصص باحثين علميين أجبروا على الفرار من بلادهم بسبب الاضطهاد السياسي والديني. الفيلم يسلط الضوء على التحديات التي تواجههم في حياتهم الجديدة، وكيف يحاولون التكيف مع بيئتهم الجديدة.

L'Espresso

Siamo scienziati, chiediamo asilo

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▲ Issues related to war-displaced scientists – and the work of TWAS and its partners – have drawn international press coverage.

For almost 35 years, TWAS has worked to build science in the developing world and to prevent brain drain in countries where every scientist and every engineer is a vital resource. South-South cooperation has been central to this effort. But when researchers, fleeing war, arrive in Europe or North America, what can we do for them there? This creates a challenge that TWAS has never before confronted.

We start with an assumption that they want to return home. And so, no matter where they are, they are important assets for the developing world.

Through its science diplomacy programme, TWAS has brought countries from the South and North together to explore the issues. We are working with partners – including those within the UN system – to find ways to increase support and improve policy. And our new film, "Science in Exile", is bringing the story of displaced scientists to conferences and universities all over the world.

For displaced scientists, the road home is not always direct, and the journey may take many years. But laws in their host countries may not

offer an easy way to normalise their lives, and resources may be lacking to support their work. This should be a target for South-South and South-North policy and diplomacy cooperation.

Above all, we must always take the long-view: Today's displaced scientists and engineers will have children in their new countries, and these children may have their own potential to be talented researchers in 20 or 30 years, and to make valuable contributions to scientific knowledge. All countries, and the science communities in those countries, therefore have an obligation to provide sustained support. This is essential for the continuing advance of science, development and prosperous communities everywhere.

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TWAS Executive Director

