# 2020-2021 Annual Report

Stanford | King Center on Global Development





# About the King Center on Global Development

The King Center on Global Development is a Stanford University research center that works to help improve the lives of people living in poverty around the world. We enable a multidisciplinary community of Stanford scholars to conduct path-breaking research; we inform current debates and help shape effective policy and practice; and we train and inspire a diverse new generation of global leaders.

Research insights generated by faculty, students, and researchers affiliated with the King Center not only help to provide a better understanding of critical issues; they also contribute to creating scalable solutions and aid in their effective deployment.

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# A Note from Leadership

Dear Friends,

We are pleased to present the 2020-2021 annual report for the Stanford King Center on Global Development.

COVID pushed close to 100 million people worldwide into poverty in 2020, partially reversing the decrease in global poverty over the past 25 years. COVID kept schools around the globe closed for many months, compromising the education of millions of children without access to remote learning opportunities. 2020-2021 also witnessed the worsening impacts of climate change, which is predicted to affect low- and middle-income countries most. The King Center's global development work is as important as ever.

This past fiscal year, we supported a wide range of research by faculty, postdoctoral scholars, and PhD students. Some examples of the topics they delved into include entrepreneurship in emerging economies, water infrastructure in sub-Saharan Africa, political representation in South Asia, and access to higher education in Brazil, in addition to work on the ongoing effects of the pandemic. Our support enabled King Center affiliates to develop and adopt new tools for collecting information and modify ongoing or planned projects to the new global realities.

The King Center also offered over 60 remote research assistantships to undergraduate students under the mentorship of our Faculty Affiliates. Students examined HPV vaccination programs in Nigeria, human rights violations in Indonesia, tropical diseases in South America, and many more topics. These opportunities provided a much-needed way for students—scattered for the year—to connect with and participate in the university's vision to make a positive impact in the world.

We are also excited to announce the creation of the King Center's Predoctoral Research Fellows Program. This program aims to help broaden the pool of scholars in global development and train the next generation of global thinkers and doers. We welcomed our inaugural cohort of predoctoral fellows to campus in July, where they are currently working with the center's multidisciplinary initiatives. Over the next two years, the predocs will be gaining valuable skills and experience in preparation for graduate school and careers in global development.

Our ability to advance critical research, to train the next generation, and to engage with policy makers, private sector leaders, and our global community is possible because of the interest and contributions of people who entrust their charitable giving to us. Thank you for your generosity. We are grateful for your partnership and continued support, which makes this all possible.

Sincerely,

Pascaline Dunas

Faculty Director, King Center on Global Development Kleinheinz Family Professor of International Studies, Department of Economics Jessica Leino

Executive Director and Research Scholar King Center on Global Development

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# Faculty Research

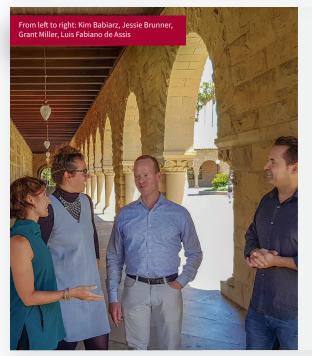
The King Center stimulates research and creates an environment where diverse perspectives in global development thrive. The more than 120 faculty affiliated with the center represent all seven of Stanford's schools and nearly every research institute. The center offers junior faculty research funding and provides support for capacity building and policy engagement activities as well as conferences and events.

The King Center's multidisciplinary, faculty-led initiatives comprise collaborative research agendas on enduring challenges. Their broad, cutting-edge analyses help inform policy and design innovative solutions. Our ten initiatives cover critical global development topics including conflict, migration, and infrastructure. This year, we highlight two of our initiatives that apply innovative methods to novel sources of data, creating tools to tackle difficult challenges facing development practitioners and policy makers.

### Measuring Development Trends from Space

The King Center's Data for Development initiative has kickstarted a new field of research by combining satellite imagery and machine learning to study development trends, including agricultural outputs, changes in population density, household wealth, electricity access, and migration flows. In a March 2021 review paper for *Science*, the DDI team found that these new methods of processing satellite imagery measure outcomes as well or better than time-intensive in-person surveys. DDI researchers introduce Stanford students to these novel methods through a course supported by the King Center, which has led to multiple publications, including predicting crop yields in low-resource areas of Latin America and Africa and tracking displaced people in humanitarian crises.





### Artificial Intelligence to Combat Human Trafficking

An estimated 27 to 46 million people worldwide are trafficked into modern slavery each year. The Stanford Human Trafficking Data Lab takes a data-driven approach to understanding and combating human trafficking The multidisciplinary initiative—which includes academics, health-care providers, anti-trafficking experts, and frontline prosecutors—makes use of artificial intelligence, data science, and a vast data repository to gain new insights into this global problem and better understand human trafficking markets and the impact of policies focused on them. The Lab is currently developing technology to support prosecutors to more quickly and efficiently detect likely cases of human trafficking based on machine-learning algorithms that process incoming trafficking tips and come up with predictions of trafficking "hot spots."



# Training the Next Generation

The King Center works to foster a diverse and talented new generation of global development scholars, both at Stanford and around the world. Stanford undergraduates participate in world-class research with King Center affiliates and graduate students receive support for their independent research. Examples of recent topics explored by our students include gender disparities in the health impacts of COVID-19 in West African countries; the welfare of migrant workers in the Arab Gulf states; the hiring practices of entrepreneurial ventures in Thailand; and worker protections in the tuna and seaweed farming industries in Indonesia.

The King Center also welcomes predoctoral and postdoctoral fellows to Stanford to help train a diverse community of scholars who will tackle policy-relevant questions from a variety of disciplinary perspectives. The center's five current postdoctoral fellows, chosen from over 300 applicants, approach problems with tools from economics, political science, engineering, and epidemiology.

Members of the inaugural cohort of recent college graduates participating in our new two-year Predoctoral Research Fellows

Program come from Colombia, Haiti, Myanmar, Peru, and Turkey. The predoctoral fellows are working on King Center initiatives,

developing their own skills in the process, and are mentored by King Center Faculty Affiliates and graduate students. These young
scholars will go on to graduate school and then careers in academic research or as change makers in global development.

#### Predoctoral Research Fellows



Mert Akan (Turkey)



Christlee Doris Elmera (Haiti)



Laura Fabiola Hernandez (Colombia)



Ei Thandar Myint (Myanmar)



Diego Tocre (Peru)

#### Postdoctoral Fellows



Augustin Bergeron (economics)



Jeremy Bowles (political economy)



Yoshika Susan Crider (energy and resources)



Nirvikar Jassal (political economy)



Marie Christelle Mabeu (economics)

### Stanford King Center on Global Development







### Modeling COVID-19 Mobility Data

During summer 2020, with funding from the King Center, undergraduate student Ella Tessier-Lavigne, a coterminal master's student studying Earth system science, joined associate professor of biology Erin Mordecai and PhD student Mallory Harris to study the effectiveness of interventions, such as social distancing, that could help "flatten the curve" of COVID-19 transmission.

The researchers noted that governments took dramatically different approaches to issuing stay-at-home orders and enforcing lockdowns. Tessier-Lavigne dug into cell phone data from the state of Georgia to see how county-level social distancing orders led to reduced mobility and if that, in turn, led to reduced transmission.

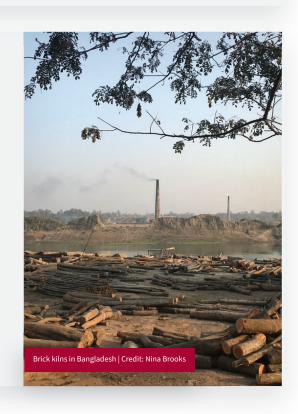
One of the research project's goals was to shed light on the causes of health inequities. Mobility during COVID can be a marker of socioeconomic status—some people are not able to shelter in place because their economic livelihoods depend on them going out, even at their own and others' risk. Most infectious diseases have a greater impact on people at the margins of society.

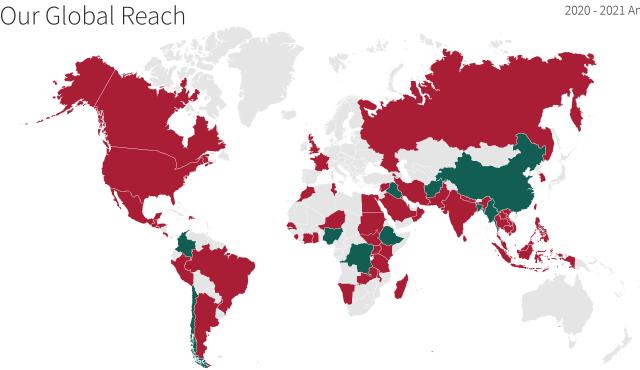
Since the development of the model and its use to analyze mobility data in the United States, it has been employed by researchers in low- and middle-income countries, including India and Pakistan, to better understand COVID transmission in both urban environments and rural communities.

### Addressing Pollution Brick by Brick

Traditional coal-burning brick kilns across Bangladesh release tons of hazardous pollutants into the air every year, leading to the deaths of tens of thousands of people from respiratory and cardiovascular disease and serving as a major contributor to climate change. Nina Brooks, PhD '20, who received a graduate student fellowship from the King Center, showed that existing regulations banning kilns near schools and health facilities are not enforced, with significant impacts on local air quality and health outcomes.

Brooks and her collaborator, King Center Faculty Affiliate Stephen Luby, are now working with local and regional partners to identify low-cost changes that both substantially improve energy efficiency—lowering operating costs for owners—and reduce air pollution, win-win solutions that kiln owners can adopt.





The King Center supports faculty and student research around the globe.

#### In the News

- BANGLADESH | Stephen Luby's research on the effectiveness of mask-wearing to prevent COVID-19 transmission was featured widely, including in *The New York Times*, *Washington Post*, *Seattle Times*, and more.
- AFGHANISTAN | The New York Times highlighted Marshall Burke's research on the relationship between climate change and conflict.
- CHILE | CNN Chile featured research by Nano Barahona on the effects of nutritional food labeling.
- SYRIA | In the Washington Post, researchers from the Migration and Development initiative shared their research on how Syrian refugees are making decisions about returning to their homes.
- CHINA | The Economist featured Hongbin Li's research on China's country-wide university entrance exam.
- DEMOCRATIC REPUBLIC OF CONGO | Postdoctoral Fellow Augustin Bergeron wrote in VoxDev about improving tax collection in the Democratic Republic of Congo.
- COLOMBIA | The Washington Post profiled Gretchen Daily and her research on environmental conservation and "natural capital."
- **ETHIOPIA** | Marcel Fafchamps wrote in *VoxDev* about his research on fostering entrepreneurship in Ethiopia.



# **Events and Engagement**

The King Center regularly convenes researchers, students, policy makers, and private-sector leaders from around the world to share knowledge and explore new partnerships. Last year, the King Center's events took place virtually and more than 3,700 people from at least 34 countries logged on to attend the center's events, which delved into timely topics including climate change, precision health, and women's empowerment in low- and middle-income countries. Read more below about two events we hosted this past year.



### **Global Refugee Crisis**

There are nearly 80 million forcibly displaced people worldwide, including 26 million refugees who have left their home countries. As the number of people fleeing conflict, persecution, and the effects of climate change continues to rise, most refugees will continue to be hosted in low- and middle-income countries. As part of the King Center Speaker Series, David Miliband, president and CEO of the International Rescue Committee, discussed the challenges and opportunities in addressing the humanitarian crisis, including employment, education, support for local economies, and resettlement efforts.

#### **Future of Aid**

In 2021, COVID-19 has made the world poorer and is expected to push 21 million people further into poverty worldwide. What does it mean for foreign aid? Rachel Glennerster, then chief economist at the United Kingdom's Foreign, Commonwealth & Development Office, and Nancy Birdsall, president emeritus and a senior fellow at the Center for Global Development, joined Jeremy Weinstein, professor of political science, for a conversation about the future of aid and whether aid is more effective than direct investment or a friendly trade policy.



# Financials and Support

The King Center remained financially strong in the 2021 fiscal year, redeploying resources due to COVID-related impacts while sustaining important research and balancing the overall budget. COVID-related cost savings for events, visiting scholar support, and certain in-country research projects allowed greater investment in faculty research and remote research opportunities for undergraduates. The growth and transition of the King Center's China Program into the new Stanford Center on China's Economy and Institutions outside the King Center reduced both income and expenses compared to the previous year.

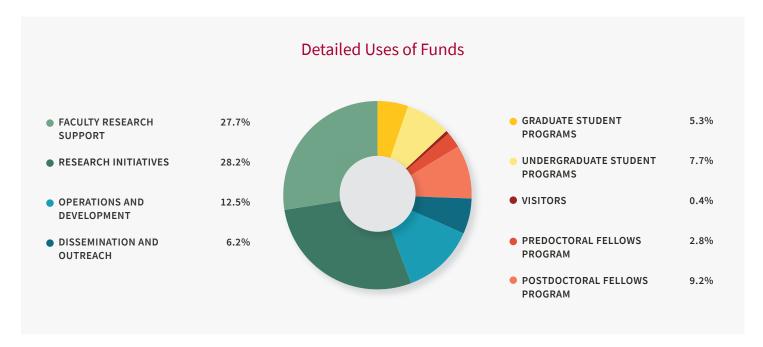
Looking ahead, we anticipate a post-COVID acceleration in our work as travel restrictions are relaxed. Our success to date has been made possible by generous donor support, and we are excited about the additional opportunities we will present to our supporters in the coming year.

### King Center Funding Sources FY21

FY21 INCOME	
ENDOWMENT PAYOUTS	\$3,427,305
GIFTS	\$616,378
UNIVERSITY CENTRAL	\$595,765
UNIVERSITY PARTNERSHIPS	\$164,033
TOTAL	\$4,803,481

#### King Center Funding Uses FY21

FACULTY RESEARCH SUPPORT	\$2,601,548
STUDENT PROGRAMS	\$602,648
TRAINING PROGRAMS AND VISITORS	\$577,366
DISSEMINATION AND OUTREACH	\$286,968
OPERATIONS AND DEVELOPMENT	\$581,029
TOTAL	\$4,649,559



# By the Numbers



Affiliated faculty and researchers



Awarded to support faculty research



Quarters of support for undergraduate, master's, and PhD students



Awarded to support graduate student research



Countries where people tuned in for King Center events



People attended King Center events live

### Named Faculty Fellows



**Katherine Casey** 

Associate Professor of Political Economy Stanford Graduate School of Business Peiros Family Faculty Fellow



**Grant Miller** 

Henry J. Kaiser, Jr. Professor, School of Medicine Dong Wei Faculty Fellow

### Ronald I. McKinnon Memorial Fellowship Recipients



**Daniel Yang** 

Undergraduate Student
Department of Economics



Floyd Zhang

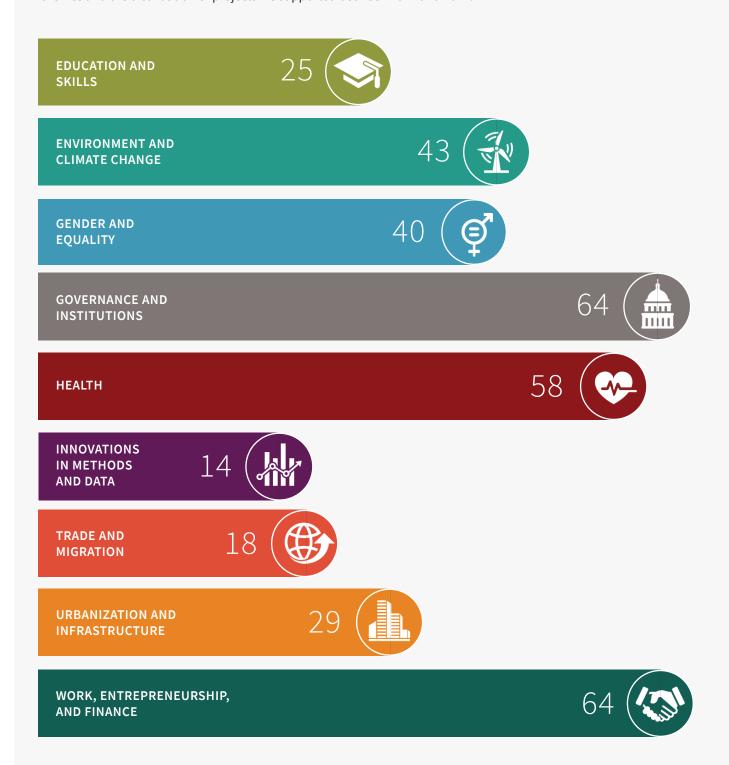
PhD student Graduate School of Business



## Thematic Areas

### King Center-Supported Projects by Thematic Area

The King Center convenes expertise and supports new research by scholars across campus on nine thematic areas. See our themes and the distribution of projects we supported between 2017 and 2021.





Stanford | King Center on Global Development

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