When I think back on the work that our Notre Dame Initiative for Global Development (NDIGD) has been blessed to do in 2015 as part of the Keough School of Global Affairs, and as I envisage our prospects for the future, one word emerges: partnership.

In 2015, NDIGD provided research and education for more than 20 global development programs worldwide, spanning Africa, Asia, the Middle East, Latin America, and the Caribbean. This work takes a tremendous amount of effort, but most importantly it requires great partners.

This past year we partnered with generous donors in the Notre Dame family who provided financial support to enable our work. At our 2015 Corporate Impact Forum, we joined with the private sector and honored nine corporate partners who have propelled the work of NDIGD forward.

We partnered with the U.S. Government on efforts such as the U.S. Department of State Mandela Washington Fellowship to train young African leaders. We collaborated with various interdisciplinary institutes and programs across campus to leverage their deep expertise, and we partnered with Notre Dame faculty experts, students, and local organizations in the countries where we work.

A short story reminds me of the value of partnership. In our first cohort of Mandela Washington Fellows, I met an incredible entrepreneur from South Africa named Ntuthuko Shezi. Partnership enabled Shezi to come to Notre Dame. We received critical financial support and in-kind assistance from private sector partners, including IBM Corporation, the Coca-Cola Foundation, Bisk Education, and Capsim, to provide key resources for the Mandela Washington Fellows.

Shezi’s passion stemmed from a desire to change his family’s financial situation, having grown up in rural South Africa with a single mother. He spent six weeks receiving an education in business and entrepreneurship from Notre
Dame’s world-class faculty, experiencing American culture, and participating in community service. Shezi then returned to South Africa with the hope of promoting access to markets for African entrepreneurs.

NDIGD began working directly with Shezi to expand our Connectivity, Electricity, and Education for Entrepreneurship (CE3) Project and related research into South Africa. The CE3 Project, started in Uganda in partnership with Accenture, provides clean solar energy, computing solutions, and business training and mentorship to foster job growth in Africa. Rigorous research by Notre Dame economics faculty is measuring the impact of that mentorship on entrepreneurial activity in the communities. The study is being done in partnership with the Kellogg Institute for International Studies and in partnership with its Ford Program.

Building on the new partnership with Shezi and his local team in South Africa, two new CE3 sites were developed there in 2015. The positive impact that we experience working with Shezi is the direct result of many collaborations.

In 2015, we became members of a new partnership to become an integral part of Notre Dame’s first new school in a century—the Keough School of Global Affairs. As we embark on 2016 and look forward to receiving our next cohort of Mandela Washington Fellows from across the continent of Africa, I anticipate the formation of new collaborations that will enable NDIGD research and education to continue making a positive impact worldwide.

Michael Sweikar
Managing Director
NDIGD is uniquely positioned at the University of Notre Dame to work across departments, centers, and institutes to move the needle on critical research questions. We work with faculty at several levels to increase opportunities for their research by leveraging our expertise in partnering with government agencies such as the U.S. Agency for International Development, U.S. Department of State, Millennium Challenge Corporation and others. Beyond contributing to research in their individual fields, faculty therefore have the opportunity to test hypotheses in real-world, applied situations.

To date, NDIGD has worked together with faculty to answer many interdisciplinary research questions, including:

- Is the UNICEF strategy in Nepal effective in reducing child labor?  
  (see p. 22, Reducing Child Labor in Nepal)

- Can a low-cost paper test card identify falsified pharmaceuticals in the developing world?  
  (see p. 24, The PAD Project)

- Is it possible to create an economically and environmentally sustainable model for economic development in rural Africa?  
  (see p. 12, The CE3 Project)
NDIGD works in diverse ways to find answers to these challenging questions. We operate under three divisions:

**IMPACT EVALUATION:** Global development projects increasingly include impact evaluation as a critical component, with the goal of producing a measurable impact on project outcomes.

Designing an impact evaluation necessitates a delicate balance between methods and project constraints that include the collection of qualitative and quantitative data. The Impact Evaluation division uses randomized control trials (RCTs) in projects, considered the gold standard in impact evaluations, in addition to other quasi-experimental designs and mixed methods to determine impact.

**EDUCATION & TRAINING:** The Education and Training Division builds on faculty expertise to provide a stimulating and inspiring learning environment for development professionals, professional leaders, and students from around the world.

University of Notre Dame teaching faculty use their experience to provide course content that incorporates the latest trends and knowledge in their field. NDIGD provides technical, administrative, and logistical support to effectively deliver that content. Together, we provide development actors with access to world-class instruction on the most pressing issues affecting the world today.

**APPLIED INNOVATION:** NDIGD helps to bridge the gap between cutting-edge Notre Dame research and development challenges. The Applied Innovation Division supports research with potential development applications in science, technology, engineering, health, business, economics, political science, and other social sciences to actively attend to the cultural, social, ethical, economic, political, and technical dimensions of global development. Together with our partners, we seek new, high-impact means to support institutions and local communities.

NDIGD research, made possible by our partners and individual donors, provides information that has critical impact on the lives of thousands of people. This research can be used by Notre Dame and our in-country partners to have an even greater impact on people in developing countries.
Bringing together Notre Dame faculty with experts from government agencies, NGOs, corporations, and foundations, NDIGD’s Corporate Impact Forum created a vibrant space for sharing ideas and best practices about challenges in the developing world. With a focus on public-private partnerships, topics for panels and roundtable discussions included impact evaluation, employee engagement, and pairing global needs with business opportunities.

Keynote speaker Chris Jurgens, Director of Global Partnerships for the U.S. Global Development Lab, underscored the importance of private sector involvement and investment in solving development challenges worldwide. He noted that U.S. government agencies like USAID are increasingly taking on the role of convener rather than direct funder or implementer, and that partnerships with universities, corporations and other organizations are absolutely essential to accomplishing goals in the developing world.

The Forum was held on campus at Notre Dame, which provided an ideal opportunity for internationally-focused participants to meet and network with the U.S. Department of State Mandela Washington Fellows, who in 2015 represented 19
countries in Africa (see page 14). The opening dinner of the Forum included the presentation of business plan competition awards to three Fellows, and recognition of nine NDIGD corporate partners. The Forum provided plenty of time to connect with the Fellows and learn about their work in Africa, and USAID presented its newly-launched Global Innovation Exchange.

Photos, top to bottom:
Luis Hernandez of Lenovo and Jessica Jecmen of Accenture participate in a panel discussion moderated by Dean Appleby.
Carlos Pagoaga, Group Director of Partnerships for The Coca-Cola Company, shares a Coke with Mandela Washington Fellow Raindolf Owusu of Ghana.

FORUM SESSIONS

ACCESS TO TALENT IN YOUR ORGANIZATION: EMPLOYEE ENGAGEMENT
Scott Appleby, Dean of the Keough School of Global Affairs, Notre Dame
Sherrie Bossung, Lilly
Kathy Eichlin, Syngenta
Luis Hernandez, Lenovo
Jessica Jecmen, Accenture

A STRATEGIC APPROACH FOR MONITORING, EVALUATION, AND LEARNING FOR THE PRIVATE SECTOR
Mike Bisk, Bisk Education
Juan Carlos Guzman, NDIGD
Thomas Kelly, MCC
Veronica Olazabal, Rockefeller Foundation
Sara Sievers, Keough School of Global Affairs, Notre Dame

IDENTIFYING GLOBAL NEEDS AND BUSINESS OPPORTUNITIES: A PRACTITIONER’S VIEW
Jeff Bergstrand, Mendoza College of Business, Notre Dame
Patrick Bryski, Deloitte Consulting
Dustin Holland, Better World Books
Carlos Passi, IBM
Melissa Paulsen, Gigot Center for Entrepreneurship, Notre Dame
The Notre Dame Initiative for Global Development is proud to be one of the seven international academic units that are now part of the new Keough School of Global Affairs, the first new school or college at Notre Dame in nearly a century. The Keough School will prepare students from around the world to become skilled, effective, and ethical agents of change in governments, international...
organizations, and the private sector. An interdisciplinary faculty includes scholars, practitioners, and policymakers who provide expertise and professional training focused on analyzing and addressing global challenges through policy and practice. A distinguishing feature of the program is the deep integration of academic coursework, skill development, and real-world practice.

In keeping with Notre Dame’s mission to place scholarship in service to the common good, the Keough School will offer professional training to advance integral human development, a positive model of human flourishing rooted in the dignity and full potential of the human person.

“The Keough School of Global Affairs builds on a foundation of seven outstanding centers of excellence in international research and education,” said Keough School Dean Scott Appleby. “Thanks to this grounding, the Keough School is already gaining traction in developing a worldwide network of research, policy and practice informed by a quest for sustainable solutions, a commitment to normative concerns, and an attentiveness to local needs, aspirations, and values.”

The Keough School will welcome its first class of students in fall 2017.
CURRENT RESEARCH & EDUCATION PROJECTS

HAITI
“Read to Learn” Evaluation
Teacher Training
USAID | ND Global Development Fellowships

LATIN AMERICA
Women Empowered Initiative
Food for Education
USAID | ND Global Development Fellowships

WEST AFRICA
Political Trust, Tolerance, and Public Goods
Clean Water Wells
Clean Water for Health
YALI Regional Leadership Center
Food for Education

SOUTHERN AFRICA
The CE3 Project

WORLDWIDE
Rapid Feedback MERL

2015 GLOBAL PROJECTS
Mandela Washington Fellowship for Young African Leaders

**COLOR KEY**
- Applied Innovation Division
- Education and Training Division
- Impact Evaluation Division

**EAST AFRICA**
- Women Empowered Initiative
- Paper Analytical Device Project
- YALI Regional Leadership Center
- USAID | ND Global Development Fellowships
- The CE3 Project
- Education for Teachers
- Clean Cookstoves for Health
- Efficient Cattle Herding

**ASIA**
- Reducing Child Labor
- USAID | ND Global Development Fellowships
- Project Choice: Six Years Later

**SUB-SAHARAN AFRICA** (22 countries)
Mandela Washington Fellowship for Young African Leaders
Gaining access to markets is a tough challenge for entrepreneurs, but even more so without a consistent source of power or Internet access. Skills development is also critical for students and entrepreneurs to stay competitive. Throughout Africa, entrepreneurs and students live in rural areas where these resources are scarce.

For farmers in areas like KwaZulu-Natal, South Africa, power and connectivity are critical for irrigation and to stay up to date on fluctuating agricultural market prices. In Gulu and Lira, Uganda, small business owners and schools depend upon energy and Internet access to run and grow their businesses.

Critical to skills development of both students and business owners, entrepreneurship training has made it possible for owners to take business operations to the next level, providing economic growth for both their families and the larger communities—the ultimate goal of the Connectivity, Electricity, and Education for Entrepreneurship (CE3) Project.

Through NDIGD’s partnership with Accenture and Lenovo, bringing solar energy, training labs, and Internet connectivity to Africa is part of an ecosystem for economic growth.
The CE3 Project is making an impact in three major areas in northern Uganda. It has been instrumental in supporting schools, communities and institutions to solve their energy needs through provision of clean solar energy, especially in remote areas that lack access to grid electricity.

The project has also inspired schools, communities and institutions to install or upgrade their information communication technologies (ICT) infrastructure, which has resulted in increased ICT literacy in northern Uganda. Hundreds of people have also benefited from entrepreneurship essentials training, and as a result of the skills gained, they were empowered to strengthen their existing businesses or open new ones.

–Lino Ogora
Gulu, Uganda
Each summer since 2014, the University has been privileged to add 25 leaders from a total of 22 countries in sub-Saharan Africa to the Notre Dame family. The University hosts 25 Fellows each summer through the U.S. Department of State’s Mandela Washington Fellowship for Young African Leaders program. In 2015, our leaders included a judge, a carpenter, a doctor, a technopreneur, an attorney, a talk show host, and many more.

Throughout the six week business and entrepreneurship institute, Notre Dame faculty lead the Fellows through topics as varied as corporate ethics, design thinking, servant leadership, business planning, and personal and professional branding. Augmenting the institute are local community service projects, cultural events, and site visits.

President Obama welcomes the Fellows to Washington, D.C. in the seventh week, where they gather with 475 more fellows from across the country. We are proud to once again be a host institution for these amazing Fellows, who have become Notre Dame’s most impactful ambassadors on the continent of Africa. We look forward to working with and learning from them for a long time to come.

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**By the Numbers**

In 2015, our **25** Fellows represented **19** countries:

- **Nearly 30,000** applications received by the U.S. Department of State
- **500** fellowships awarded in 2015
Teaching and mentoring our Mandela Washington Fellows provides a great learning experience not only for these very accomplished professionals, but also for us at Notre Dame. Every business and entrepreneurship venture is unique, no matter where it operates in the world, but in many ways we all speak the same language.

—Melissa Paulsen, Assistant Director
Gigot Center for Entrepreneurship, Mendoza College of Business
Global climate change is a reality that is severely threatening the livelihoods of pastoralists in Ethiopia and Tanzania. During dry seasons, herders typically rely on traditional methods of determining migratory patterns, such as word of mouth and sending scouts to assess. These methods, however, are no longer enough; herds are becoming increasingly vulnerable due to the lack of viable fields for grazing and a scarcity of water sources.

Project Concern International (PCI) has implemented innovative technology to assist pastoralists in their decision making processes as they determine their migratory patterns. Through geo-satellite data, PCI has created customized maps to depict the location of feasible grazing grounds.

NDIGD is teaming up with PCI to evaluate how the implementation of this technology is impacting local pastoralists, and determine whether it is reducing the livestock mortality rate. We are also hoping to understand how these lower mortality rates translate to increased income for the herders.

In 2015, NDIGD researches surveyed pastoralists in Tanzania and Ethiopia to research key information like mortality rates, local market price of livestock, and milk production. The project will continue into 2017, when a final evaluation will determine the impact.

**BY THE NUMBERS**

- 97% of herders in Tanzania consider shortage of pasture to be a significant cause of death for their livestock.
- In 2015, herders in Ethiopia experienced cattle mortality rates of 70%.
- In both Tanzania and Ethiopia, the value of the animals that died in 2015 totaled over $2,000 USD per herder.

Numbers relate to survey areas only.
PCI is using customized satellite data to put climate adaptive technology into the hands of the communities that need it most to make critical livelihood decisions. By providing the technology directly to those who need it, we hope to improve pastoralists’ livelihoods as well as greatly reduce the cost of climate change related aid.

– Jason Rubin, Associate Technical Advisor Monitoring, Learning, and Evaluation Project Concern International
Thirteen Notre Dame students will depart for eleven countries in the spring and summer of 2016, each examining an important research question that impacts the developing world. The students’ research topics are as varied as the areas of the world to which they will travel: How can genetically modified mosquitos deter the spread of the Zika virus in Mexico? What is the impact of youth in social movements in Colombia? How can we use mobile technology to incentivize and improve rural schools in South Africa?

Partnering with various in-country NGOs, universities, and government agencies, these students are addressing some of the most pressing challenges in the developing world through research. Along the way, they have a unique opportunity to build their professional networks and, combined with their affiliation with USAID, are in a great place to begin or continue careers in international development.

The U.S. Global Development Lab, a division of USAID, partners with Notre Dame to provide these fellowship opportunities. Now in its second year, the program is also supported by in-country hosts and various Notre Dame departments and institutes.

**By the Numbers**

USAID | ND Fellows
---|---
2015-6: **11**
2016-7: **13**
2017-8: **15**

**11** focus areas:
- Anthropology
- Computer Science
- Education
- English
- French
- Global Health
- Int’l Development
- Peace Studies
- Political Science
- Sociology
- Theology

In 2016, students will be hosted in **11** countries:
- Cambodia
- India
- Colombia
- Mexico
- El Salvador
- Philippines
- Haiti
- South Africa
- Honduras
- South Sudan
- Uganda
The USAID | ND Global Development Fellowships provide students with firsthand experiences that immeasurably enrich their formal education. These opportunities confirm what Father Malloy meant when he said that “our classroom is the world.”

–Professor Joseph Buttigieg, professor of English and director, Hesburgh-Yusko Scholars Program
School-aged children in Benin are faced with many obstacles in their pursuit of education, and NDIGD is working to assess the best way to alleviate these burdens through Catholic Relief Services’ Food for Education (FFE) Project.

With funding from the U.S. Department of Agriculture, the FFE Project aims to strengthen the learning environment through the provision of school lunches and take-home rations, with goals of improving and increasing community knowledge of health and hygiene practices, safe food preparation, and nutrition, as well as access to preventative health interventions, water, and sanitation services. The program also provides training for teachers and classroom resources.

NDIGD conducted a baseline study for this project. Through reading assessments, interviews, and questionnaires, the NDIGD team creates a comprehensive view of the current challenges for communities in Benin, from dietary deficiencies in the home, to attention levels in the classroom. The information from the baseline study conducted by NDIGD will be compared to studies conducted at its conclusion, providing Catholic Relief Services with a full picture of the program’s impact.

BY THE NUMBERS

38,000 primary school students benefit from FFE

Less than 20% of primary school teachers surveyed have a teaching certificate

25% rate of open defecation

85% percentage of students who cannot name three reasons for handwashing

52% percentage of students who cannot write
We know that school feeding, when contextualized and implemented effectively, plays a key role in improving educational outcomes (school participation, school performance, and cognitive development), especially for those children most at risk. School feeding can also contribute to health and nutrition, agriculture, and social protection goals.

However, we still have a lot to learn about which set of interventions and approaches are most effective in which contexts and for which goals; research and evaluation of school feeding programs—such as that undertaken by Notre Dame for CRS’ Benin program—can help map this out.

–Anne Sellers, Senior Technical Advisor–Education
Catholic Relief Services
Approximately 40% of the country’s youth are engaged in child and forced labor in Nepal. Children as young as age seven are working in agricultural fields, making bricks, and textile factories, among many other industries. In addition to the day-to-day harsh working conditions, one of the long-term effects of children working instead of attending school is the perpetuation of an intergenerational cycle of poverty. Further, these children are vulnerable to human trafficking, sexual exploitation, and illegal activity either on their own or through local crime organizations.

UNICEF is working to decrease this statistic by implementing services and programs such as temporary shelters and a children’s helpline, and is ensuring children have access to counseling, legal services, and education.

NDIGD is partnering with the U.S. Department of Labor to provide an impact evaluation of UNICEF’s work in Nepal. The randomized control trial evaluation will assess how program services translate into the overall reduction in child labor, improve the schooling and training opportunities available to children, and how to successfully integrate child laborers into society.
This project is a significant opportunity for the University of Notre Dame, because it requires that we consider the issue of child labor in a more complex way than simply insisting that it be illegal. Alternative opportunities for these children need to exist and families need to better understand the negative consequences. By determining the most effective approaches to combat child labor, the findings of the RCT Evaluation have the potential to reduce child labor, both in Nepal and elsewhere in the world.

—Eva Dziadula, assistant professor of economics

RESEARCHERS

Tushi Baul
Danice Brown
Eva Dziadula
Juan Carlos Guzman
Lila Khatiwada
Detecting poor quality drugs is a profound problem in much of the developing world. Because governments, NGOs, and individuals are unable to install and maintain expensive technology to check on the quality of medicines sold in the market, Notre Dame faculty in partnership with the Eck Institute for Global Health have developed Paper Analytical Devices (PADs).

The PAD is a simple paper test card that can detect falsified formulations of pills, or carry out other analytical tasks in technology-limited environments. The user can evaluate the test result by eye or use image analysis software. The software also builds a spatial and temporal database of the test results to help regulators monitor the big picture.

A USAID Development Innovation Ventures grant enabled Notre Dame faculty to expand the PAD project in Kenya. The project is creating new technological tools and is working with local partners in Kenya to monitor and screen pharmaceuticals. NDIGD’s work with faculty to win the USAID grant will help to provide a solution to the problem of poor quality medicine in Kenya that, through partnership with USAID and other donors, we hope to scale up to cover more of the developing world.
Many countries in the developing world do not have the technological infrastructure or regulatory resources to keep low quality medicines off the market shelves.

Our ultimate goal is to change that with low-cost, easily accessible testing tools for pharmacies, doctors, clinics, and hospitals, empowering them to ensure that their patients receive quality medicine that everyone deserves.

—Marya Lieberman, associate professor of chemistry
The impact that we make around the world is a direct result of the strength of our partnerships, both on and off campus. Internally, our efforts focus on connecting the research of our faculty and students to challenges in developing countries. Externally, we focus on building relationships with corporate and foundation partners, government funding agencies, in-country NGOs, and individual donors and alumni to make these projects successful and impactful.

**FACULTY**

NDIGD serves as a bridge between faculty research and teaching interests, and the global development community. Increasingly, research and learning are core tenets of development programs. Through NDIGD, the University is well positioned to respond to this need while advancing the research agenda of its faculty.

Faculty typically work with NDIGD in one of three ways:

- **NDIGD actively seeks funding opportunities for faculty to advance their research in developing countries.** For example, in 2015 NDIGD helped sociology professor Jaimie Bleck secure $100,000 of USAID funding for her research in Mali.
• Faculty members partner with NDIGD on projects that relate to their research. Economics professor and Kellogg Institute fellow Kevin Donovan’s work, which will evaluate economic growth resulting from solar, Internet connectivity, and entrepreneurship training put in place under NDIGD’s CE3 Project (see p. 12).

• Faculty members consult or participate in NDIGD projects that benefit from their expertise. The Mandela Washington Fellowship (see p. 14) is a perfect example of faculty serving in the central role of educating fellows in leadership, business, and entrepreneurship.

**STUDENTS**

NDIGD works to provide practical learning experiences for students. Students engage in various aspects of global development practice as interns, fellows, and researchers in NDIGD programs. From data collection to analysis and program design to implementation, Notre Dame students learn practical skills to prepare them for a career in global development through their engagement with NDIGD.

**PARTNERSHIPS**

NDIGD works on implementation and evaluation for a variety of partners, including government agencies, NGOs, humanitarian organizations, foundations, and others in the United States and overseas.

**CORPORATE IMPACT PROGRAM**

NDIGD places a high value on our corporate collaborations, and we have created the Impact Program for corporations and foundations who support projects at the level of $50,000 or above (or $25,000 in unrestricted gifts) annually. Impact members benefit by gaining access to talent both at Notre Dame and in country; training on business ethics; insight on overcoming challenges by sharing best practices and lessons learned; and networking with university experts, NGOs, and federal agencies in designing new corporate responsibility projects.

**PRIVATE DONATIONS**

Many NDIGD projects are supported by private donations. In addition to project-specific funding, the University seeks multiple endowments for excellence to support each division, outreach and publications, and public events, as well as other critical Initiative priorities.

If you have questions or would like to speak with our managing director about how you can partner with NDIGD, please call 574-631-2940, or email globaldevelopment@nd.edu.

In 2015, NDIGD received 22 external research grants and gifts.
"The Initiative is not just another think tank, but

A VIBRANT CENTER OF SOLUTION-ORIENTED RESEARCH

focused on rigorous, data-driven impact evaluation and assessment, design and planning of development projects, and training."

— Rev. John I. Jenkins, C.S.C.
President, University of Notre Dame