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Together, we can make a difference. The University of Minnesota will lead the way.

In 2012-14, the University of Minnesota’s third Global Spotlight initiative focused on the geographical region of South Asia (including Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka) and the pressing global issue of food security, to consider the causes, the effects, and the possible solutions to perplexing, pervasive challenges that face us all. As with the two prior Global Spotlight initiatives, we built on cross-border and cross-disciplinary relationships to provide the University and our local communities with education and information to assist us in planning for the future.

The purpose behind the Global Spotlight is to shine a light—literally and figuratively—on international activities across the University. Our faculty engage in outstanding work to address the world’s issues, and to prepare our students to live and work in a global society. By highlighting a specific region of the world and by focusing on a particular topic, we will inspire new research and advance understanding of the world in integrated and exciting ways.

The 2012-14 Global Spotlight funded important faculty projects on oral cancer in India; natural resource sustainability in northwestern India; and policy reform in Nepal, New Zealand, and the European Union, just to name a few. Graduate student research on India’s changing electronics recycling sector, on a community forest enterprise for sustainability in Vietnam, and on food accessibility in Bolivia were supported in an effort to launch budding scholars into successful careers capable of earth-shaking consequence.

Solving every grand global challenge in our lifetime is not possible. But, gathering information; applying state-of-the-art research; and working across cultural, geographical, and disciplinary boundaries will help us understand many of them. Together, we can make a difference. The University of Minnesota will lead the way.

Meredith McQuaid
Associate Vice President and Dean of International Programs
ABOUT THE GLOBAL SPOTLIGHT

The Global Spotlight highlights and supports international scholarly initiatives and activities across the University.

Begun in 2009, the Global Spotlight is the Global Programs and Strategy Alliance’s biennial focus on a region of the world and a pressing global issue. The focus in 2012-14 was on the region of South Asia and the issue of Global Food Security.

The goals of the program are to:

• highlight existing strengths of the University;
• build on cross-border and cross-disciplinary relationships;
• educate and inform the University and local community;
• identify and provide funding for targeted research and other scholarly initiatives;
• and increase the University’s visibility and stature around the world.
The 2012-14 Global Spotlight Advisory Committee was composed of nominated faculty from across the University system who are experts in the areas of South Asia and/or the issues surrounding Global Food Security.

**SOUTH ASIA**

Nina Asher, Curriculum & Instruction, College of Liberal Arts, Twin Cities
Anu Ramaswami; Science, Technology, and Environmental Policy; Humphrey School of Public Affairs; Twin Cities
Jennifer Rothchild, Sociology, Division of Social Sciences, Morris
Simona Sawhney, Asian Languages and Literatures, College of Liberal Arts, Twin Cities
Ajay Skaria, History, College of Liberal Arts, Twin Cities

**GLOBAL FOOD SECURITY**

Jeff Bender, Veterinary Population Medicine, College of Veterinary Medicine, Twin Cities
Laura Bloomberg, Center for Integrative Leadership, Humphrey School of Public Affairs, Twin Cities
Runa Das, Political Science, College of Liberal Arts, Duluth
Lewis Gilbert, Institute on the Environment, Office of the Vice President for Research, Twin Cities
Craig Hedberg, Environmental Health Sciences, School of Public Health, Twin Cities
Marti Kubik, Population Health and Systems, School of Nursing, Twin Cities
Harouna Maiga, Animal Science, Center for Agriculture and Natural Resources, Crookston
Paul Porter; Agronomy and Plant Genetics; College of Food, Agricultural, and Natural Resource Sciences; Twin Cities
Terry Roe; Applied Economics; College of Food, Agricultural, and Natural Resource Sciences; Twin Cities
Rachel Schurman, Sociology, College of Liberal Arts, Twin Cities
Kingshuk K. Sinha, Supply Chain and Operations, Carlson School of Management, Twin Cities

**LEADERSHIP**

The Global Spotlight initiative was led by Karen Brown, who was assistant vice president for international scholarship from 2012 to 2014. Dr. Brown is co-director of the Interdisciplinary Center for the Study of Global Change.
South Asia is a complex region—politically, geographically, and economically—that serves as home to approximately one-quarter of the world’s population. The region boasts a rich cultural history and a wide diversity of religious and linguistic practices. The eight countries of South Asia are comprised of more than 2,000 ethnic groups and several hundred languages. The countries in the region are economically diverse with increasing opportunities for growth; however, they also confront substantial challenges in infrastructure development, education, public health, nutrition, and resource challenges such as water supply and access. South Asia’s vibrant cities have experienced dramatic growth in recent decades. Four of the ten largest urban regions in the world are located in South Asia: Delhi, Mumbai, Dhaka, and Kolkata.

Agriculture and rural community development also represent key regional issues, as agriculture employs about 60 percent of the labor force and contributes 22 percent of regional GDP. Three-quarters of the poor live in rural areas and depend upon rain-fed agriculture, livestock, fragile forests, and migratory employment, making issues of environment and development very significant.

The regional South Asian economy has enjoyed two decades of robust economic growth resulting in decreased poverty, and increased life expectancy and child survival. Poverty and nutrition remain significant concerns, with more than 500 million people living on less than $1.25 a day. The region also includes the world’s largest working-age population and one-quarter of the world’s middle-class consumers, creating a pivotal role for South Asia in global development.

Regional and international geopolitical factors figure prominently in South Asia, and relations with India, Pakistan, and Afghanistan in particular are key U.S. foreign policy concerns. Linkages with Minnesota include a significant population of more than 30,000 South Asians living in the state and a large group of South Asian students at the University of Minnesota, with students from India making up the third largest group of international students at the University after China and Korea.

University of Minnesota faculty conduct research and collaborate with colleagues and institutions across South Asia on diverse areas, including public health, economics, language and linguistics, medicine, politics, development policy, migration, environmental health, and cultural studies. Several units focus specifically on South Asia: the Ames Library of South Asia, the Department of Asian Languages and Literatures, and the Institute for Global Studies minor in South Asian and Middle Eastern Area Studies. The University also offers a number of study abroad and internship opportunities in South Asia.
Global food security—food access and quality, use, and availability—remains high on the list of critical global issues. Scholars, practitioners, and policymakers alike grapple with effective approaches for achieving sustainable access to food. Increasing food production through higher yielding and more resilient crops with better nutritional value represents a critical pathway to food security.

Because global food security is deeply interconnected with other processes of environmental, economic, political, and social change, ensuring sustainable food security goes beyond increasing the world’s food supply. It requires the perspectives of scholars specializing in agriculture; ecological systems; food production and markets; institutions at the local, national, and transnational levels; water access and distribution; livelihoods and economic systems; human and animal health and nutrition; education and extension; households and families; and cultural and social life.

The global scope and complexity of food security spans multiple scales (local, national, and international) and temporal dimensions (immediate crises such as famine and drought as well as longer-term preventive measures including sustainable livelihoods and climate change mitigation). For example, the physical environmental dimensions of climate change—global warming, droughts, rising ocean levels, shrinking ice caps, changed weather patterns, and changes in water resource availability—have enormous impact on food security in local and global contexts.

Social justice represents a particularly salient dimension of global food security, as promoting just and sustainable access to food requires attention to a wide range of factors including: food security variability across nations, communities, families, and individuals; cultural and media representations of food security; institutions and processes that impact food access; the human, cultural, and social history of food security; relationships between social and ecological systems; how food policies are formulated; and the interconnections of processes such as urbanization and food insecurity.

The University of Minnesota is a comprehensive research institution with the capabilities needed to address the multifaceted issue of global food security. Food research by University experts has a long history and a global impact. Alumnus Norman Borlaug, 1970 recipient of the Noble Peace Prize, made an indelible mark in the field of food security through his leadership and attention to preventing wheat rust. Researchers across the colleges and campuses of the University system provide a broad range of expertise. In addition, the State of Minnesota is home to some of the major players in the world’s global food market such as General Mills, Cargill, and Land O’ Lakes, many of whom support and collaborate with the University’s expert faculty.
The University of Minnesota hosted a one-day forum on October 31, 2014, offering insights from experienced international collaborative researchers and funders. The objective of the forum was to provide knowledge, tools, and resources to scholars interested in or already engaged in international collaborative work.

The event consisted of several panels of experts in the field in concurrent sessions, and a lunch and social networking time for researchers. As an outgrowth of the Global Spotlight initiative, the Forum featured many faculty recipients of past Global Spotlight grants as speakers and part of a Global Spotlight Research Panel.

Outside experts included Dr. Shana Gillette, USAID Bureau of Food Security; Dr. Suzanne Ortega, Council of Graduate Schools; Dr. Valerie Wilson, National Science Foundation; and Debra Egan, Institute of International Education.

The International Collaborative Research Forum was sponsored by the Global Programs and Strategy Alliance, the Office of the Vice President for Research, the Institute for Advanced Study, and the Center for Global Health and Social Responsibility.
In the first year of the biennium, the Global Spotlight co-sponsored several events that highlighted South Asia and Global Food Security.

**April 5–7, 2013** — Workshop on Critical Climate Change Scholarship, hosted by the Interdisciplinary Center for the Study of Global Change

**April 16, 2013** — One Health Partnership workshops on “Advancing Global Food and Nutrition,” organized by the Global Initiative for Food Systems Leadership

**May 8, 2013** — Perspectives on Global Food Security and Social Justice: A Roundtable Discussion

**June 8, 2013** — Dance of a Thousand Water Dreams, organized by Indigenous People’s Task Force and U of M Department of Theater Arts and Dance

**September 20, 2013** — Critical Conversations: Asia & Biology, sponsored by Critical Asian Studies (CAS)

**October 14–15, 2013** — 5th Annual Healthy Foods, Healthy Lives Symposium and Food Summit, co-hosted by the Healthy Foods, Healthy Lives (HFHL) Institute and the Minnesota Landscape Arboretum

**March 8–10, 2013** — 25th annual Nobel Peace Prize Forum
The Global Spotlight grants program supports targeted research and scholarly initiatives related to the Global Spotlight themes. In 2014, almost $700,000 in grants were awarded to University of Minnesota faculty and graduate students through four grant programs that funded innovative research and supported the continued development of a global network of engagement and scholarship across the University.

### 2014 Faculty Grants Awarded

<table>
<thead>
<tr>
<th>College of Food, Agricultural, and Natural Resource Sciences</th>
<th>$209,631</th>
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<tbody>
<tr>
<td>School of Public Health</td>
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<td>School of Medicine</td>
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<td>College of Liberal Arts</td>
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<tr>
<td>College of Education &amp; Human Development</td>
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<td>Humphrey School</td>
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<td><strong>Total</strong></td>
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### 2014 Student Grants Awarded

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<td>College of Food, Agricultural, and Natural Resource Sciences</td>
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<tr>
<td>School of Public Health</td>
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<td><strong>Total</strong></td>
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**New Funding Partnerships**

The Global Spotlight scholarly focus on food security was supported by an innovative funding partnership including the Interdisciplinary Center for the Study of Global Change, the broader GPS Alliance, the Institute on the Environment, and the Office of the Vice President for Research.
Tobacco Carcinogens and Oral Cancer in India

Principal Investigator: Samir S. Khariwala, Asst. Professor, Otolaryngology–Head and Neck Surgery, Medical School
Co-Principal Investigators: Pankaj Chaturvedi, Professor, Head and Neck Surgery, Tata Memorial Hospital, India; Vikram Gota, Assistant Professor, Clinical Pharmacology, Advanced Centre for Research, Education and Training in Cancer, India; Irina Stepanov, Assistant Professor, Environmental Health Sciences, School of Public Health; Jasjit S. Ahluwalia, Professor, Medical School

While tobacco consumption is declining in high-income countries, lower-income countries have continued to see an increase. This problem is especially prominent in India given the rampant use of smoked and smokeless tobacco products, which are historically poorly regulated. Squamous cell carcinoma of the oral cavity (OCSS) is the leading cause of cancer death in India, and the number of cases continues to rise. India generates the highest number of oral cancers worldwide per year. The factors that cause some tobacco users to develop OSCC, while others do not, are poorly understood, and limited research has been conducted in this area. Identifying those who are most at-risk for the development of OSCC would have great benefit through pre-diagnosis clinical surveillance. This study has the potential for significant impact toward scientific understanding of cancer risk.

Building Popular Food Security Institutions:
Developing Policy-Oriented Curriculum for Translating between Political Agro-Ecology Practice and Policy Reform in Nepal; Aotearoa, New Zealand; and the European Union

Principal Investigator: Valentine Cadieux, Research Associate, Sociology and Geography, CLA
Co-Principal Investigators: Bhaskar Upadhyay, Associate Professor, Curriculum and Instruction, CEHD; Dr. Jahi Chappell, Director of Agriculture Policy, Institute for Agriculture and Trade Policy

This project will examine how people understand and practice food security, with the goal of transforming broad policy discussions to more effectively address common barriers to achieving food security. The project will use three case studies to understand the ways people have been working to reform food policy, particularly in locations where food security efforts are in tension with food security policy locally, nationally, and internationally. The case studies will examine a range of access to power such as state support, international trade negotiations, development infrastructure, and social organization of food producers.

Building Knowledge Networks to Improve Agricultural Resilience & Food Security in Somalia

Principal Investigator: Paul Porter, Professor, Agronomy and Plant Genetics, CFANS
Co-Principal Investigators: Lewis Gilbert, COO, Institute on the Environment; Cheryl Robertson, Associate Professor, School of Nursing

Due to internal conflicts and famine, Somalia has been absent of a permanent and effective central government, which has resulted in the decline in population welfare. The agricultural sector has particularly been hit hard as research indicates that food aid is stifling Somali agricultural production. With donor agencies transitioning from aid to development, the agricultural sector must be strengthened. This research will involve a critical analysis of the agricultural and livestock sectors by documenting the agricultural production and relating it to the quantity of food aid coming into the country. This research will build an agricultural knowledge network for Somalia by utilizing databases from the Food and Agriculture Organization, the Food Security and Nutrition Analysis Unit-Somalia, and the Famine Early Warning Systems Network, coupled with the U of M Institute on the Environment’s Global Landscape Initiative and EarthStat. The goals of this project are to develop mechanisms for articulating knowledge barriers to the evolution of resilience in Somali food systems to ultimately shift from humanitarian aid to development and food security.
Examining the Intersection of Disability Identity and Civil Society Disability Messaging

Principal Investigator: Christopher Johnstone, Sr. Research Associate, Institute on Community Integration, CEHD
Co-Principal Investigators: Sandya Limaye, Associate Professor, School of Social Work, Tata Institute of Social Sciences; Misa Kayama, Post-Doctoral Associate, Social Work, CEHD

Disability identity has been studied in the United States since the 1930s. Only recently, however, have researchers identified that a taxonomy of identities exists among populations of persons with disabilities. Sociological research in the U.S. (Darling, 2013) has demonstrated that age of onset, exposure to different viewpoints, and culture may mediate identities (see also McDermott & Varenne, 1995). This study will build upon previous work conducted by co-investigator Professor Limaye related to Indian disability identity, and provide an opportunity to create a culturally contextualized discussion about disability in India and possibly open the door to further studies about culturally mediated identity among persons with disabilities. Findings generated from this research will both add a much-needed Indian perspective to the existing literature on disability identity and will provide useful information to civil society organizations working in policy and empowerment spheres.

Exploring Natural Resources Sustainability in Mizoram, India

Principal Investigator: Karlyn Eckman, Senior Research Associate, Forest Resources, CFANS
Co-Principal Investigators: Joseph Magner, Research Professor, Bioproducts and Biosystems Engineering, CFANS; Dean Current, Research Associate, Master’s of Development Practice program, Humphrey School; Michele Schermann, Research Fellow, Bioproducts and Biosystems Engineering, CFANS
Mizoram University Partners: Laltanpuii Ralte, Professor, Public Administration; Dr. Lalnilawma, Extension Education and Rural Development; H. Lalramnginglova, Professor, Environmental Science; S.K. Tripathi, Professor, Forestry; Drs. Lanunmawia and Lalfakzuala, Professors, Forestry

Foreigners were restricted from travel within Mizoram from 1958 to 2011 due to the Indian Protected Area Law of 1958. Today, it is still rarely visited by foreigners. The population has more than doubled in 40 years, and 95 percent of the population is listed as scheduled tribes (minorities). The challenges of sustainable development in Mizoram are compelling. It is reaching a tipping point, and solutions need to be sought for the underlying issues that cause food insecurity. The proposed project will investigate the impacts of shifting cultivation on food security, soil loss under different cultivation, and geologic conditions; test agroforestry practices to improve food production and prevent soil loss; and explore farmers’ capacities to adopt improved practices. This research will yield new scientific data in agriculture and food production, agroforestry and zoonosis, soils, and water quality. Results of this research will assist the Mizoram government in creating water conservation and farmer extension programs to improve and sustain access to food.

Assessing and Prioritizing Needs for Occupational Health Infrastructure in India

Principal Investigator: Gurumurthy Ramachandran, Professor, Environmental Health, School of Public Health
Co-Investigators: Anu Ramaswami, Professor, Humphrey School; Matteo Convertino, Assistant Professor, School of Public Health; Sigamani Panneer, Assistant Professor, Dept of Social Work, Jamia Millia Islamia University; Sunita Reddy, Assistant Professor, Centre of Social Medicine, Jawaharlal Nehru University

Rapid industrialization and urbanization in India has severely strained existing occupational health and urban infrastructures, resulting in significant public health impacts and economic costs. This research will analyze current attributes and outcomes of occupational health infrastructure in India and the dynamic and complex interactions within themselves and the urban infrastructure. The analysis will identify the needs for occupational health infrastructure and the priority areas for investment of government and industry resources to have a significant public health impact. The research is a novel combination of mathematical systems modeling, engagement of a broad cross-section of stakeholders and policymakers, elicitation of expert opinions in a probabilistic framework, and empirical fieldwork. The multi-pathway work with a transdisciplinary research team and a working group composed of scholars and policymakers will impact public policy and inform scholarly studies in public health.
INTERNATIONAL RESEARCH SEED GRANTS

Grants (up to $20,000) support innovative project-based scholarly research and creative production of an international nature with a focus on the Global Spotlight themes.

Rescue and Preservation of the Araucana Chicken Breed for the Benefit of the Mapuche Community in the Arauco Valley of Chile

Principal Investigator: F. Abel Ponce de León, Professor, Animal Science, CFANS
Co-Principal Investigators: Dario Menanteau, Professor, Department of Social Work, CEHD; Eduardo Jeria-Castro, Veterinarian, Centro de Innovación y Transferencia Tecnológica Agropecuaria, Universidad Católica de la Santísima Concepción Cañete, Chile

Rapid Urbanization, Public Infrastructure, and Stranger Violence Against Women in India

Principal Investigator: Anu Ramaswami; Charles M. Denny Chair and Professor of Science, Technology, and Public Policy; Humphrey School
Co-Principal Investigators: Jason Cao, Associate Professor, Urban and Regional Planning, Humphrey School; Greta Friedemann-Sánchez, Associate Professor, Global Policy, Humphrey School; Bruce Alexander, Professor, Division of Environmental Health Sciences, School of Public Health; Sivakami Muthusamy, Associate Professor, Center for Health and Social Sciences, Tata Institute of Social Sciences; Shilpa Phadke, Assistant Professor, Center for Media and Culture Studies, Tata Institute of Social Sciences; Hitakshi Sehegal, Coordinator, India Programs, School of Public Health and GPS Alliance

Neel/Butopia: Charting Visions of Change

Principal Investigator: Ananya Chatterjea, Director of Dance, Theater Arts and Dance, College of Liberal Arts
Co-Principal Investigators: Jigna Desai; Associate Professor; Gender, Women, and Sexuality Studies, and Asian-American Studies; College of Liberal Arts; and Hui Niu Wilcox, Associate Professor, Sociology, Women’s Studies, St. Catherine University

A Mixed Method Study of Caregiving for Older Adults in India

Principal Investigator: Benjamin Capistrant, Assistant Professor, Epidemiology, School of Public Health
Co-Investigators: Greta Friedemann-Sánchez, Associate Professor, Humphrey School; Dr. Subharati Ghosh, Assistant Professor, Tata Institute of Social Science

The New Green Revolution and the Politics of Agricultural Policymaking in Tanzania

Principal Investigator: Rachel Schurman, Professor, Sociology, College of Liberal Arts
Co-Principal Investigators: Ron Aminzade, Professor, Sociology, College of Liberal Arts; Deborah Levison, Professor, Humphrey School; Paul Manda, Professor, Library Department, University of Dar Es Salaam, Tanzania
DOCTORAL FELLOWSHIPS INTERNATIONAL RESEARCH GRANTS
(POST-ORAL EXAM)

Fellowships (up to $15,000) support students conducting international dissertation research on a full-time basis with a focus on the Global Spotlight themes.

Vernacular Englishes
Akshya Saxena, Ph.D. candidate, Cultural Studies and Comparative Literature—College of Liberal Arts

Food Accessibility in Bolivia
Brian Wilson, Ph.D. candidate, Philosophy—College of Liberal Arts

MA, PROFESSIONAL, AND DOCTORAL INTERNATIONAL GRANTS
(PRE-ORAL EXAM)

Grants (up to $5,000) support short-term activities related to the Global Spotlight themes that enhance the student’s scholarly project and/or professional preparation.

Caste-Subalterns and Urban Infrastructure: The Spatial Politics of Sewers in Contemporary Delhi
Lalit Batra, Ph.D. student, Geography—College of Liberal Arts

Filtering Classes in Space: The Geographic Work of Security Guards in Delhi’s National Capital Region
Damien Carriere, Ph.D. student, Geography—College of Liberal Arts

Global Discourse, National Policy, Local Economies: India’s Changing Electronics Recycling Sector
Julia Corwin, Ph.D. student, Geography—College of Liberal Arts

Diets, Diversity, and Identification Tools For Ecologically Important Order for Food Fishes in Sri Lanka
Josh Egan, Ph.D. student; Fisheries, Wildlife, and Conservation Biology—College of Food, Agricultural, and Natural Resource Sciences

Payment of Ecosystems Services Implementation in Thus Thien Hue, Vietnam
Meagan Hume, Master of Development Practice—Humphrey School of Public Affairs
Chou Moua, Master of Development Practice—Humphrey School of Public Affairs
Shruti Saxena, Master of International Development Practice—Humphrey School of Public Affairs

A Window into ‘World-City’ Making: A Case Study of the Bangalore-Mysore Infrastructure Corridor
Devika Narayan, Ph.D. student, Sociology—College of Liberal Arts

Investigating a Community Forest Enterprise Approach for Sustainable Livelihoods in Central Vietnam
Ariel Pinchot, Master’s student, Natural Resource Mgmt—College of Food, Agricultural, and Natural Resource Sciences

Indigenous Rice Farming in Nagaland, India: Increasing Food Security, Sustainable Livelihoods, and Biodiversity in the Face of Global Climate Change
Elspeth Iralu Wright, Master of Public Health student, Community Health—School of Public Health

Developing Region-Specific Water Management Models in India and China
Daqian Jiang; Master’s student; Science, Technology, and Environmental Policy—Humphrey School of Public Affairs
Global Spotlight is an initiative of the Global Programs and Strategy Alliance, the central international office for the University of Minnesota system. The GPS Alliance is the driving force for the University in globalizing teaching, learning, research, and engagement.

global.umn.edu