



Real-World Solutions to Combat Poverty



The Blum Center taps the energy and talent of the nation's top public research and teaching university to help the nearly 3 billion people in the world who live on less than \$2 a day. While faculty focus their research on solving the most pressing needs of the poor, they also bring that knowledge into the classroom, training the next generation of global

Berkeley students and faculty are changing the

What the Blum Center has already accomplished in just three years is nothing short of amazing.

– George Shultz, former US Secretary of State



Over 60 faculty are affiliated with the Center, including Shankar Sastry, Director of the Blum Center and Dean of the College of Engineering.

Dear Friends,

As we celebrate our third anniversary, I'd like to pay tribute to our faculty, students and generous supporters, whose interest and enthusiasm continue to exceed all expectations!

Our unique undergraduate academic minor in Global Poverty and Practice is now the largest on campus — nearly 400 strong and growing — giving students from every discipline the knowledge and real-world experience to become dynamic participants in the fight against global poverty. We are investing in undergraduates in a way that is virtually unprecedented in public higher education – as one student explained, “enabling us to work on developing the world as well as developing ourselves.”

Our model of focusing seed funding to encourage action-oriented projects that will be scalable and sustainable in the hands of partners outside the university is working all across the developing world. Innovations, funded jointly by the Blum Center such as UV tubes for clean water and sanitation, the Berkeley-Darfur stove, wireless telemedicine solutions for remote diagnosis of disease, and the Solar LED Lumina project have already influenced the lives of thousands of people.

We are grateful to all those who

have helped us make such remarkable progress.

In particular, we'd like to thank a new Trustee — Coleman Fung, CEO and Founder of OpenLink Financial. With Coleman's generosity and guidance, we will be able to increase support for faculty-student teams working on innovative solutions to the most pressing needs of the poor.

We were also thrilled to receive \$2 million from an anonymous donor. This gift was partially matched by the Hewlett Foundation, enabling us to establish a \$3 million Faculty Chair to support our Global Poverty and Practice Minor, and a \$500K fund to support undergraduate student field research.

With all this growth, the Center needed a physical home. After a grand ground-breaking ceremony featuring Vice President Al Gore, crews are restoring the historic Naval Architecture Building and constructing a new wing adjacent to it. This is sure to be a central hub on campus for interdisciplinary research and education to help the poor.

It's been an overwhelmingly positive and productive year. We are grateful for the opportunity the Center provides us to help transform lives and improve conditions in the developing world. We hope you will join us!

Best regards,

S. Shankar Sastry
Faculty Director, Blum Center
Dean, College of Engineering,
UC Berkeley

THE LARGEST MINOR ON CAMPUS

Global Poverty and Practice Minor



The Global Poverty and Practice Minor provides undergraduates from a wide variety of majors the knowledge to become dynamic participants in the fight against global poverty. Launched in Fall 2007, it is now the largest minor on campus — and still growing. Students come from a wide range of disciplines, including Engineering, Architecture, Economics, and Molecular & Cell Biology.

Classwork

The Center has a continuously evolving portfolio of classes designed to educate students about issues relating to global poverty, while providing them with the appropriate skills and experiences so that they can take action.

These include:

- Entrepreneurship to Address Global Poverty
- Water and Development
- Poverty and Technology
- Women, Poverty and Globalization
- Poverty and Peripheries in the Asia Pacific



Over 1000 students hoped to take the Blum Center's flagship class from Prof. Ananya Roy this semester; only 725 could sit in the room.



When students return from fieldwork, they participate in a semester-long forum to reflect on this transformative experience; some share their work (above) at a public event.

Real-World Experience



On her first experience abroad, Jacqueline Barin worked in India on a Tata project to implement cost-effective strategies to prevent maternal and newborn deaths.

Fieldwork

The signature element of the Minor is a self-defined practice experience. In 2009, over 100 undergraduates participated in poverty alleviation initiatives in 30 countries.

To ensure that the practice experience is accessible to all, students can apply for fellowships to support their work. To date, the Center has funded 58 students with an average award of \$2,300.



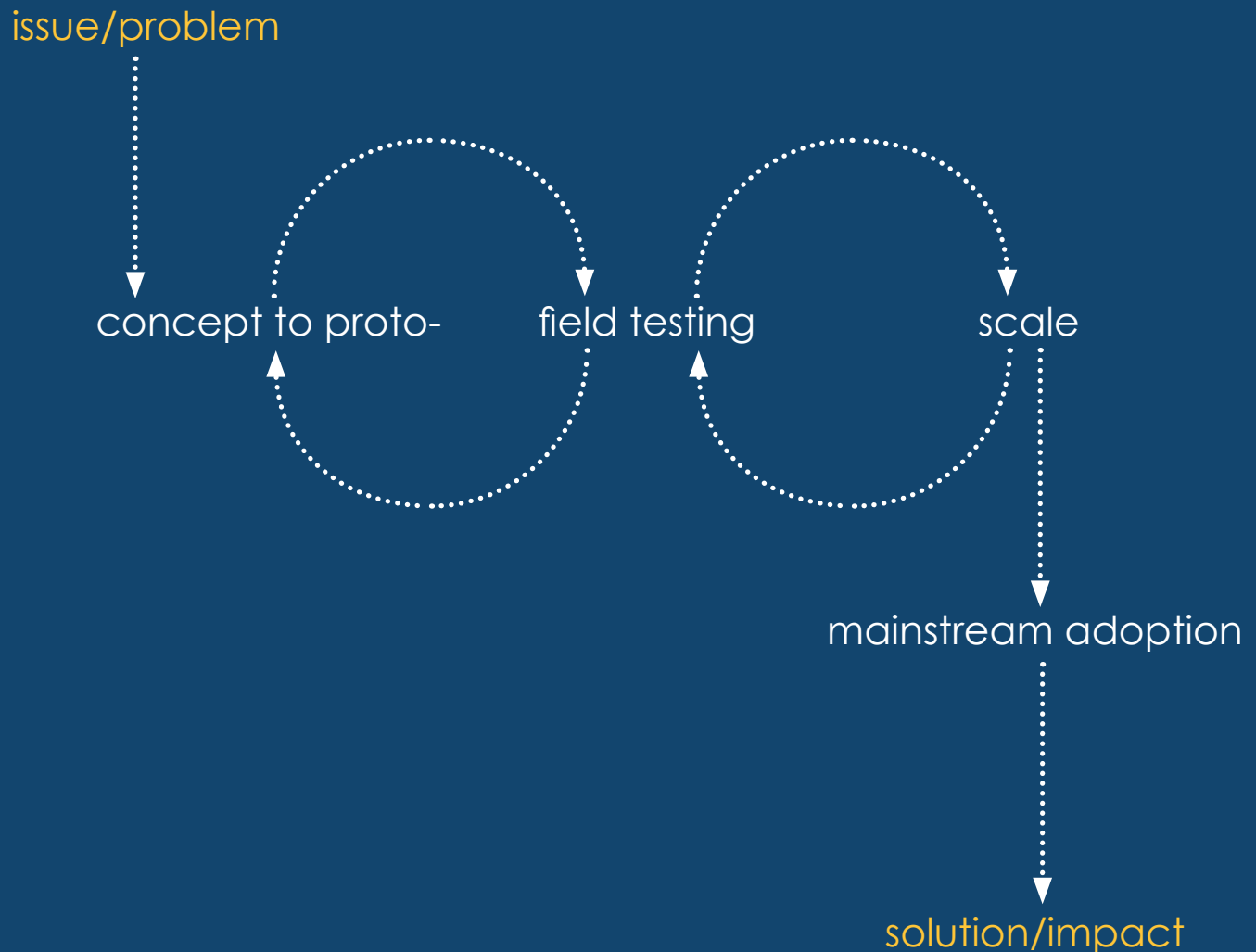
In Rwanda, Jacob Siegel-Boettner helped assemble bicycles for coffee farmers who needed transportation to get their harvest to market.



Michal Rosenoer worked in Kenya at the Agriculture and Research Institute, which develops methods to increase productivity while preserving the environment.

I consider myself to be immensely privileged to be a student at the Blum Center, which offers the most radical, accessible academic resources that, in my experience, enable not just meaningful education, but meaningful global practice as well. – Zac Taylor, Urban Studies

How it Works



Blum Center multidisciplinary teams approach poverty in a unique way. We partner with corporations and non-profits outside the university as early as possible in the design and development process — so that working together our solutions are sustainable in the long term, helping not just hundreds of people but thousands or millions of people.

Innovation Initiatives



We focus on developing the next generation of effective and affordable technologies and services that are specifically designed to respond to the needs of the poor.



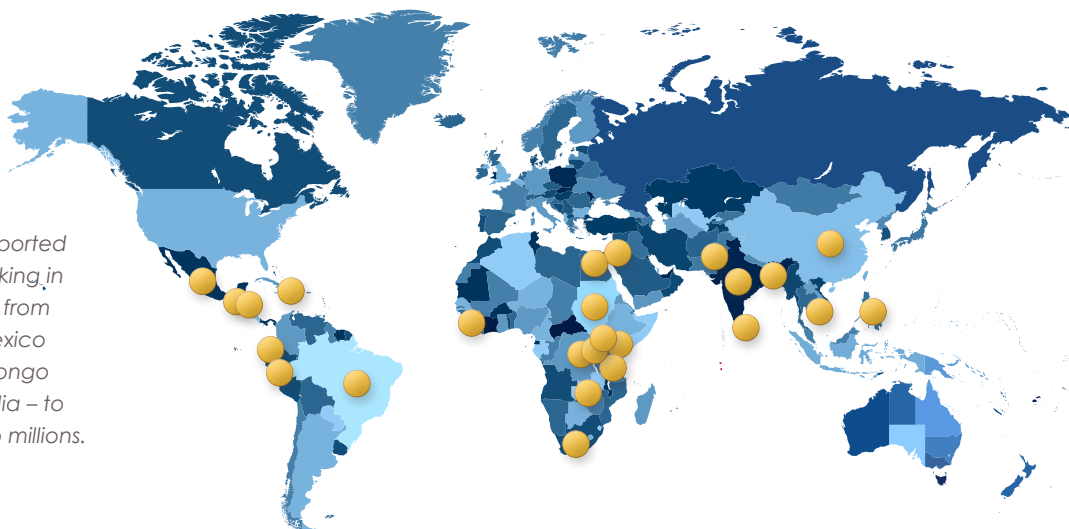
We incorporate needs assessments and marketing research that guide the technology development and also provide the business case for partners outside the university to scale the projects to help thousands or millions.



Innovation teams are now working to deliver safe water and sanitation solutions in eight countries; life-saving mobile services throughout Africa and Asia; and new energy technologies that emphasize efficiency while reducing negative environmental impacts.

Where we work

The Blum Center has supported faculty and students working in more than 25 countries – from safe water projects in Mexico to telemedicine in the Congo to better sanitation in India – to devise solutions that help millions.



Safe Water and Sanitation

WaterHealth International has been very pleased and fortunate to partner with the University of California/Lawrence Berkeley National Laboratory to make the world a better place.

– F. Henry Habicht, II, Chairman of the Board, WHI

Lack of access to safe water and poor sanitation practices are fundamental causes of debilitating disease and death in developing countries. The Blum Center is developing the next generation of effective and affordable point-of-use (POU) water treatment technologies that remove biological and chemical contaminants. Our innovations are specifically designed to respond to the needs of users in developing countries. Our efforts incorporate cross-cutting methodologies — including needs assessments, consumer preference/marketing studies and epidemiological impact assessments — that guide the technology development and business plans necessary to bring the technologies to scale.

In the past year, the Blum Center provided support for innovations in Ultraviolet Tubes; Accelerated Solar Disinfection System; Q-H2O: Antimicrobial Surfaces; Electrochemical Arsenic Removal (ECAR); and Arsenic Removal Using Bottom Ash (ARUBA); and the Haath Mein Sehat Project.

Salud en tus Manos (Health in your Hand) serves over 140 schools in rural Mexico, and is growing nationally, promoting hygiene efforts in school through hand sanitizer stations and education.



A Blum Center student explains a new water filtration system aimed at providing poor rural households affordable access to clean water.



Safe Water and Sanitation

For me personally, traveling to the villages and interacting with the local community, especially with the children, had a big impact. This experience underlined the urgency of the arsenic problem. – UC Berkeley chemistry undergraduate student



An estimated 7 million slum dwellers in Mumbai, India suffer from diseases associated with contaminated drinking water and inadequate sanitation. Blum Center teams are working to provide safe water and better sanitation there and throughout India.



In Bangladesh, naturally-occurring arsenic poisons the drinking water of between 40-70 million people. In California's central valley, arsenic in groundwater is also a significant problem. Here a woman shows the first indications of the poison – skin lesions on her hand. Blum Center teams are working on a variety of alternative technologies to remove arsenic from groundwater.



Left: In Baja Sur Mexico, evaluators working with Fundación Cantaro Azul, a Blum Center partner, analyze drinking water samples collected from households participating in a pilot project to test a low-cost ultraviolet water disinfection system.

Mobile Services and Technologies for the Poor

The idea for Cellscope arose when Dan Fletcher assigned his students to design a microscope that could be affixed to an off-the-shelf cellphone. “We realized this could be a very practical and powerful tool in the real world.” – David Breslauer, Bioengineering

The expansion of wireless networks creates a unique opportunity to develop applications and services that help the poor by providing existing services more cheaply and by facilitating new services.

Projects supported by the Blum Center focus on hardware, software, and service delivery business models to extend low-cost connectivity. Once connected, Blum Center researchers work to deliver large-scale, sustainable results. Healthcare is the initial focus (telemedicine applications, mobile phone networks to improve access to health care and “smartphones” to bolster health information systems); finance and education will be next.

Among the projects supported by the Blum Center are Smartphones for Better Health; CellScope for Disease Diagnosis; and Bodas for Life.



Ugandans test a new model of communication for remote areas, utilizing cell phones for inexpensive voice messaging rather than more expensive live calls.



Cellscope, a new integrated cell phone and microscope system, is expected to revolutionize disease diagnosis and monitoring around the world.



Blum Center teams are using mobile phones to create new ways to provide access to medical services and financial services to the poor.

Energy Efficient Technologies

Lack of access to safe, affordable energy is one of the greatest challenges in developing countries. Options available for light, heat and cooking can be expensive and often involve considerable negative health and environmental impacts. The Blum Center supports innovative technological solutions to help the poor with their energy needs in a way that is both efficient and environmentally conscious.

The Lumina/LED Lighting project is designed to replace unhealthy kerosene with affordable, high quality off-grid lighting based on LED technology. The Department of Energy recently announced their support for scaling this effort.

Multiple cookstove projects in Darfur, Tanzania and China, address the problems of using wood or charcoal to cook — deforestation, soil erosion and a choking indoor smoke known to kill four million children worldwide. Replacing hundreds of millions of cookstoves is not a simple matter.

Cooking styles and cultures vary widely among regions. Taking this into account, our projects involve individual households in designing technologies that are locally appropriate, while we work to develop cost-efficient supply chains, and provide ongoing technical assistance.



In Darfur, women and children are forced into dangerous journeys outside crowded refugee camps to search for fuel for inefficient and unhealthy cookstoves. The Berkeley-Darfur cookstove (above) was designed on a supercomputer at Lawrence Berkeley National Lab to burn much less wood, also taking into account the particular needs of women in the camps who provided input throughout the re-design. The stove is assembled and distributed by a local partner (right) who trains employees near the camps.



A new portable device provides reliable lighting and communication for labor and delivery rooms in the developing world — so that doctors can be summoned in emergencies and surgery can continue when the electricity goes out.

Events



On April 23rd, former Vice President Al Gore delivered the keynote address at a groundbreaking ceremony for the new home of the Blum Center.

Other notable guests this year at the Blum Center included former Vice President Walter Mondale, Supreme Court Justice Stephen Breyer, and former President of Ireland Mary Robinson.

Right: Former Vice President Walter ("Fritz") Mondale addressed a standing room only audience about the need to reform the development aid system.

Far right: Supreme Court Justice Stephen Breyer spoke about the importance of the rule of law in developing countries.



Help our faculty and students change the world



Founder Richard C. Blum's vision for addressing poverty is practical and engaged, focusing on sustainable solutions for developing economies.

Dear Friends,

I was walking across the Berkeley campus with Chancellor Birgeneau a few years ago, and I was struck with an idea. I said, "What would you think about a center for global poverty at Berkeley?" He said, "I love the idea," and thus was born our Center for Developing Economies.

What most excited me about the idea of a Center at Berkeley was that it could have a two-fold mission: applying the world-class brainpower of faculty towards finding solutions to the most pressing needs of the poor, while at the time supporting those same faculty in educating the next generation of leaders in the fight against poverty.

As our third anniversary passes, it's clear that my and everyone else's expectations for the Center have been greatly surpassed.

We thought there would be some untapped interest among the students in the issue of global poverty. But we never dreamed that in just over three years more than 3,000 students would have been involved in our programs and classes, and

that our Global Poverty and Practice Minor would quickly grow to be the largest on campus.

Similarly, we hoped that faculty would be drawn to the goals of the Center. But we vastly underestimated the number of faculty who've dedicated their research to solving the problems of poverty, in disciplines ranging from engineering to business to architecture.

Going forward, their energy and talent are bounded only by the resources that the Center can provide.

To that end, we are grateful for the generous benefactors who have stepped up to support the ideas and ambitions at our university — Andrew and Virginia Rudd, Coleman Fung, Art Rosenfeld, as well as other philanthropists who wish to remain anonymous — and corporations such as Vodafone and Dow. Together we have committed ourselves to the principle of becoming enablers — so that maybe someday every person will have the opportunity to grow, be educated and improve their lives, their families, their communities and our family of nations.

Of all the investments I've made in my life, what we're doing here ranks at the very top. I hope you'll join us in supporting the amazing work of faculty and students at the greatest public university on the planet.

Warm Regards,

Richard C. Blum



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PHOTOS: Will Babbitt, Jackie Barin, Darfur Stoves Project, Phillip Denny, Fundación Cantaro Azul, Haath Mein Sehat, Edith Han, Michael Helms, Melissa Ho, Wilbur Lam, David Levine, Liz Mangelsdorf, Brian Poboda,