



Center for Social Innovation at UVA

Annual Report 2022



Letter from the Director:

Dear Friends and Colleagues,

It was an honor to be named the Director of Batten's Center for Social Innovation in May 2021. The Center has had a busy year! Our first success was in hiring and welcoming Brendan Novak as Associate Director of the Center. Brendan is an MPP alum of the Batten School, and he has been central to all of our programs this year. We are lucky to have him on our team!

Our focus this year has been on maintaining our strong student programs while expanding the Center's research portfolio. Building partnerships has been a primary focus—strong partnerships with businesses, governments, and NGOs help us to create opportunities for students and solidify research relationships. We expect that these partnerships will also privilege us in designing large-scale innovative research projects. We have successfully created two formal partnerships with well-known international NGOs this year, which are already yielding interesting opportunities. In addition, we are expanding outreach at the University—we have several faculty partners in the Engineering School, we are collaborating with the Biocomplexity Institute on two projects, and we work closely with faculty from the College of Arts and Sciences. We also partnered with the Asian Development Bank Institute and the Institute for Fiscal Studies to support a global workshop on improving sanitation in developing countries.

Our student programs over the past year prepared students to understand issues unique to businesses in Appalachia and strategies for sustainable development in the region. Tadler Fellowships provided students with the opportunity to work directly with diverse organizations in Appalachia. Meanwhile, the Invest Appalachia J-term class took place remotely in January 2022 because of concerns related to COVID, but the students were able to talk to leaders from Appalachia and learn about business problems specific to the area. Our Appalachia programs have inspired increased research interest in the region, and we are developing collaborations with several county governments to better understand the payoffs from migration of remote workers into the region.

It has been a very exciting year for the Center as we continue many of the popular programs that have taken place in past years and add on new projects. I have enormous shoes to fill in taking over Directorship of the Center from Christine Mahoney—the Founder and Director of the Center for its first 10 years. I hope you all will join me in thinking about and participating in new and exciting opportunities for the Center.

Best,

Molly Lipscomb

Introducing the New Associate Director:



We welcomed Brendan Novak as the Associate Director of the Center for Social Innovation at UVA's Batten School of Public Policy beginning in September, 2021. He is a data management expert with an Masters in leadership and public policy from Batten. He has experience aiding in the evaluation of policy at the state and federal level, and has experience working in Stata, QGIS, and R. Novak is coordinating with the students to ensure that our partners receive the highest level consulting services from their student research associates and is coordinating with faculty to manage several large research projects.

NGO Partners

Engagement with stakeholders and real-world policymakers is a core mission for the Center for Social Innovation. Our work strives not just to generate critical insights about the toughest challenges facing our world, but to put the power of information in the hands of people and organizations that work every day to address these challenges, uplift communities, and lay the groundwork for a more prosperous and equitable society.

In pursuit of this mission, the Center has forged partnerships with non-governmental organizations in the field, to identify relevant research questions, gather novel and meaningful data, and produce useful analyses. This is a valuable opportunity for partner organizations, since they collect a wealth of valuable data in the regular course of business, but often lack the institutional capacity or expertise to leverage it. Meanwhile, the Center benefits from having eyes and ears on the ground that understand the most pressing challenges and policy-relevant research questions, and fruitful partnerships for large-scale research grant opportunities to conduct work at scale. Furthermore, these partnerships provide the unique opportunity for Center Research Assistants to work with real-world NGO data, engage with the front lines of international development, and expand their networks into some of the leading organizations in the field. We also anticipate each collaboration to generate a handful of white papers detailing findings.

Language in our contracts require us to withhold specific information about our partners at this time. The following section includes general background information about these partners, and a brief summary of the projects we are collaborating on.

Partner — Water Access

Our first partner is a global nonprofit organization working to bring water and sanitation services to the world. Billions of people worldwide lack basic water and sanitation services at home, causing significant hardship. Bringing this infrastructure to these households significantly improves productivity, economic opportunity, and community health. Their programs provide low-cost financing for safe, accessible, and cost-effective water and sanitation improvements in developing regions. Their work has touched 50 million people across 17 countries and 4 continents, and the organization continues to scale its operations, empowering more communities every year. Their programs only stand to grow in relevance as global climate change drives more extreme weather patterns, which exacerbate the health and socioeconomic problems associated with lack of access to reliable water and sanitation infrastructure.



Partner — Water Access

Our partner is also interested in the effects of climate change and extreme weather on the demand for their services. They collect administrative data on uptake of their services, including specific time, location, and user data. By connecting this information to weather and climate data (first ground-collected, then incorporating satellite data as needed), we can analyze the relationships between climate conditions and interaction with their services. This analysis will allow the organization to better forecast demand and scale service delivery.

Finally, our partner has requested feedback and suggestions on how to improve their data collection processes to streamline and improve the usefulness of future analyses. We have already provided notes that were incorporated into the most recent version of their survey instrument, and expect to present more guidance on how to optimally design their surveys in order to generate high-quality research ready data, for iterative internal research activities, as well as potential future large-scale grant-funded research projects.

With that information, we will apply hedonic pricing techniques to propose a valuation of their program impacts on Ugandan households. This analysis promises to help the organization better understand their program effects, improve service delivery, and communicate their program impact to clients, donors, and partners.

Partner — Food Security

Our other partner is one of the world's largest nonprofit organizations, engaging hundreds of millions of people in over 100 countries across 5 continents. The organization works to advance universal principles such as human rights, education, and social welfare regardless of race, religion, or ethnicity worldwide. We have an ongoing agreement with their Niger office, for a project related to their proprietary agricultural commodity price monitoring program.



The organization strives to monitor in real time the going market rates of major agricultural commodities. This information is important because extreme values on either end can be detrimental to the livelihoods of the farmers who produce commodities to generate income and the households who rely on the produce market to supplement their nutrition. Abnormally low prices can create negative shocks to farmer income and the local economy, while abnormally high prices can lead to hunger and even famine. The partner is also interested in the interrelation of foreign aid, both in-kind and cash, and the status of these markets. Research shows that if not carefully done, injections of aid from external sources can have significant distortional effects on local commodity markets (supply gluts cratering prices, or cash infusions shifting demand and raising prices, for example).

Partner — Food Security



For this project, a student Research Assistant will be tasked with assisting the partner in preparing the monthly data collected by the organization in a pilot fashion for analysis. This includes tasks such as data standardization and outlier analysis, identification and integration of relevant outside data sources (such as weather, conflict, etc.), and processing to create graphical and statistical analyses. The Center will also, in conversation with the partner, develop and propose best practices for data collection, standardization, and analysis, to enable long-term data-supported decision rules for aid disbursement and other activities.

Conference on Sanitation & Development



BILL & MELINDA
GATES *foundation*

In October 2021, the Center for Social Innovation collaborated with the Asian Development Bank Institute (ADBI) and the Institute for Fiscal Studies (IFS) to plan an online conference. The seminar included a wide range of topics in international development, focusing primarily on using economic principles to optimize sanitation services in Asia and globally. The sessions included case studies in Brazil, Dakar, Bangladesh, Senegal, Pakistan, India, Indonesia, Mali, and Tanzania, examining advances in technology and the manipulation of markets to increase access to sanitation services. The conference also took a close look at gender differences in these countries, focusing on intra-household bargaining, menstrual health, the marriage market, worker productivity, and well-being among female workers. Sebastian Galiani, professor of economics at the University of Maryland, delivered the keynote address about the characteristics of the water and sanitation sector and policies to improve it, touching also on the interaction between policy design and evaluation. Policy solutions included subsidies, property tax compliance measures, privatization of public goods, behavioral change, and welfare effects in the presence of externalities. The conference facilitated problem-solving, intellectual creativity, and economic innovation through a series of engaging topics and in-depth case studies.

Collaborations



Biocomplexity Institute and Initiative

The center has been engaged in a collaboration with the Biocomplexity Institute, a pan-university interdisciplinary research institute housed within UVA. Our partnership has produced a handful of grant applications, focused on climate resilience and healthcare infrastructure in Latin America.



Vulnerability and Climate Change

The Center for Social Innovation has spearheaded an interdisciplinary Vulnerability and Climate Change Working Group, in partnership with researchers from UVA, Tufts, Chapman, Missouri S&T, and NASA. The group brings together experts from a diversity of fields such as systems engineering, civil engineering, environmental engineering, geology, hydrology, economics, and public policy to drive forward cutting edge methods and analyses for quantifying climate risks and advising policymakers on strategies for mitigation and resilience building.

Work in the Field: Uganda 5 Year Follow-Up



The Center recently sent researchers into the field in Uganda for a large scale grant-funded project. The study seeks to better understand the extent to which poor households invest in land to exit poverty traps. The project involves a long-term follow up survey of a previous study on poverty traps, wherein participants chose between a safer, low payoff lottery for a cash grant and a riskier, high payoff lottery. The study revealed that a substantial portion, 27 percent, of the sample selected the riskier lottery. Among those who won the large grants, many decided to invest in land purchases.

This project seeks to expand upon the previous study with three key aims: (1) to test for persistent effects of grant winnings on investment, income, and land value and compare current returns on investment to those estimated six and eighteen months after the initial lottery; (2) to collect retrospective data on land transactions to better understand the land market in Uganda and the connection between plot size indivisibilities and transactions with poverty; and (3) to expand the addressable modeling questions through modifications.

Work in the Field: Uganda

5 Year Follow-Up

The project involves a follow-up survey of the households who participated in the initial lottery five years ago. It will include an empirical analysis of longer run impacts of relieving credit constraints, a model of indivisible investment opportunities of Uganda's land market, and the effects of financial interventions under these conditions. A key area of interest is whether land savings or land investment paid off and how the income returns of the grant compare to those estimated six and eighteen months after grant receipt. The randomization of the initial lottery experiment allows for a causal identification of the effects of the grants separately for small and large lottery selection.

We will assesses the longer run effects of a large capital injection that could potentially enable some households to break through the poverty trap, and examine whether land is used to expand agricultural production or as an investment good. The findings of this project will be useful for institutions working on expanding access to both financial instruments and land reform and titling policy. Particularly, the findings could be useful to the Ugandan government for determining which financial interventions to scale. On a micro level, findings will be useful for understanding implications of land market indivisibilities on poverty rates; on a macro level, the project will demonstrate the aggregate effects of financial policies such as credit expansion.

Public Impact Focused Research

Center for Social Innovation Director Molly Lipscomb was honored in 2022 by the University of Virginia for her outstanding research and scholarly activities. Molly Lipscomb received the Public Impact Focused Research award for work that looks at the impact of, and strategies for, bringing public services, such as electricity and sanitation, to low-income households in countries such as Brazil, Senegal and Burkina Faso. Much of this work is about finding creative ways that access can be improved around the margins when the government can't afford network-level expansions to infrastructure.

"This year's research award winners have made discoveries and generated knowledge that will have lasting impact on multiple fields, disciplines, and sectors, from the arts and sciences to health care and business. I'm grateful for their efforts and excited about the future of research at UVA,"

— UVA President Jim Ryan



The Center was proud to have Monica Logothetis, a Batten graduate, spend a year with us as a research fellow. During her tenure, she studied re-entry of formerly incarcerated people into the workforce. Monica also recently launched a podcast called Jail to Jobs with the hope of shedding light on the barriers to employment after incarceration. The podcast seeks to contribute to reforming the criminal justice system and to address the stigma around hiring previously incarcerated people, in part by sharing powerful stories of people who experience incarceration and struggle to re-enter the job market and society. In Jail to Jobs, Logothetis shows the ways in which we can make steps towards a brighter future.

January Term 2022

In January 2022, select applicants from the University of Virginia and UVA Wise received Tadler fellowships to participate in an exclusive January term learning opportunity. Students traveled virtually throughout the Appalachian region while jumping into the literature, engaging in thought-provoking conversations, and hearing directly from professionals in the area. Through this experience, students learned the fundamentals of social entrepreneurship, impact investing, and the unique opportunities for growth and revitalization in the region.

"Through talking with angel and gender lens investors as well as entrepreneurs in the social impact space, I have been able to explore ways in which we can better set social entrepreneurs up for success, and connect them with like-minded investors who are also seeking to make a positive impact. Impact Investing in Action was an amazing way to see the real-life application of what I have learned about and an exciting opportunity to meet more people who are doing important work in the Appalachian region." – Elinor Frothingham, Media Studies 2023

The January term course hosted a diverse group of students, all eager to apply insights of impact investing to their individual interests. Disciplines from across the University were represented, including Commerce, Engineering, Public Policy, Computer Science, Politics, and Media Studies. From first years to fourth years, students brought a variety of different backgrounds and perspectives to the table and fostered intellectual curiosity.

January Term 2022

"I was interested to learn more about how impact investing can uplift communities because I have a very deep personal connection with how economic opportunity can dramatically change people's life trajectory. Both my mother and father were born to families of factory workers and schoolteachers in houses without running water or electricity in Liaoning, China, the province that has experienced the greatest GDP decline since China opened its economy to international investment. Through a mix of luck and hard work, my father turned his career as a translator at a state-owned shipping company into a successful freight-forwarding business, the proceeds from which he used to move his family to Shanghai and eventually, to emigrate to Canada. After taking a trip back to the village where my mother and father grew up in the summer of 2019, I became fascinated with how different my life could have looked, and thus, want to learn how economic opportunity can be used to change other people's lives, seeing how much it has changed mine." – John Sun, Commerce & Statistics 2023

"This was a very interesting course. It was set up in a way that not only taught students about the logistics of impact investing, but also the implications of it in an area like Appalachia. I was one of the UVA Wise students who took this course, and as I drove down the main street in Wise, I found that I approached the area with a fresh perspective as a result of this course. I found myself brainstorming ways of how impact investing could benefit the town of Wise (for example, investing in small businesses on that street to promote downtown revitalization). This course was so fun! Professor Randolph went about teaching it in a really effective way" – Anonymous Student Feedback

Tadler Summer Fellowship

During the summer of 2022, our Tadler Summer Fellowship program helped empower a handful of bright young changemakers to pursue internships related to sustainable economic and community development in the Appalachian region. Below are a few selected experiences, adapted from the blog posts penned by the 2022 fellows. You can learn more about the student experiences and read the blog posts in full on the Center's website.



Zichun Ma, Commerce 2024

Partners for Rural Transformation

Zichun worked on the Appalachia portfolio with Partners for Rural Transformation, a community development partnership working to build economic power in rural communities. As an intern alongside the project manager, she communicated directly with the CEOs of six Community Development Financial Institutions to compile information and cultivate a deeper understanding of how the organizations contribute to improving the lives of people in the Appalachian region.



Megan Finney, MPP 2023

City of Charlottesville

Megan Finney worked with the City of Charlottesville on its Climate Action Plan. The city has pledged to reduce its greenhouse gas emissions by 45% by 2030, become carbon neutral by 2050, and engage with local and regional businesses and organizations to achieve these goals. Megan interfaced closely with these stakeholders working to bring clean power generation, sustainable transportation, and green economic opportunity to the Shenandoah Valley and beyond.

Tadler Summer Fellowship



Anabelle Nuelle, MPP 2023

4P Foods

Annabelle worked with 4P Foods, which serves as an aggregator and distributor for underserved farmers, and Foodshed Capital, which works to provide sustainable and underserved farmers with flexible financing. Throughout the internship, she traveled around Virginia to speak to farmers about the obstacles they face. She then designed frameworks to capture the impact and highlight what has gone unaddressed, making a clear comparison between the organizations' presences and stated priorities. Through these organizations, she developed an acute understanding of the realities and obstacles facing agricultural communities in and around Virginia.



Elizabeth Berman, Economics & Spanish 2024

Invest Appalachia

Elizabeth worked with Invest Appalachia, a blended regional capital investment fund. Focused on the central Appalachia region, Invest Appalachia strives to expand community investments in the region and create a better relationship between community and capital by overcoming common investment obstacles. She piloted three main projects, working with others at Invest Appalachia and speaking with dozens of people from seven states across a variety of sectors. In her own words, she learned not just about capital tools, but also about a region full of diversity and promise.

Tadler Summer Fellowship



Gibbs Hooper, Systems Engineering 2025
Blueprint Local

Gibbs worked with Blueprint Local, an impact-oriented opportunity fund that catalyzes community investment and development in distressed areas, to spur economic growth and job creation in under-invested communities. Gibbs worked in a partnership with the Conservation Fund to develop a rural impact investment fund focused on Opportunity Zones in Virginia's Appalachian region.



Michael York, MPP 2023

Federal Railroad Administration

Michael worked on freight rail policy in the New River Valley with the Federal Railroad Administration. With the recently passed bipartisan infrastructure bill and other related state legislation, there are new opportunities to unlock the economic potential of rail access, freight and passenger, to areas that have lacked that connectivity for generations. Michael interfaced with the rail companies working in the area and help chart the path forward towards advancing high-growth sectors and catalyzing community investment through rail connectivity.

Research Assistants

The Center for Social Innovation hosts a handful of paid student Research Assistants each semester. Select students that proceed through the competitive application process get to work with the Center and its partners to help advance research goals. Students enjoy the opportunity to develop their data processing and analysis skills beyond what they would encounter in their classes, witness the research and policymaking processes firsthand, and expand their professional networks through direct interactions with partners in academia, governments, and non-governmental organizations. Research assistants have gone on to work at places such as the State Department, FERC, and USDOT.



Erin Melly, MPP 2022



Akilesh Ramakrishna, MPP 2023



Katherine Knipmeyer, CAS 2023



Sophia Bakar, Eng. Ph.D. Student

Research Assistants



Jackson Young, CAS 2022



Jenny Tran, MPP 2024



Aly Buckner, MPP 2024



Michael Glatz, CAS 2023



Deebi Dugma, BA 2022



Benjamin Goffin, Eng. Ph.D. Student

Appalachian Economic Development

Economic revitalization of Appalachia is vitally important for Virginia and surrounding states. As the University of Virginia sits in the Blue Ridge Mountains, on the eastern Edge of the Appalachian Range, it has a vested interest in the sustainable development in the region, and is well positioned to help understand the dynamics at play.



The Center has partnered with a handful of counties through the Economic Development Boards of Northeast Tennessee and Cambria and Somerset Counties in Pennsylvania, who have conducted small scale relocation incentive program pilots in the last 2-3 years. Through this partnership we hope to investigate the design and impact of these programs, including questions such as the marginal dollar impact on a person's propensity to relocate, baseline factors that predict response to a grant, and the long-term direct and indirect benefits from attracting new households into the area through these grants.

Appalachian Economic Development

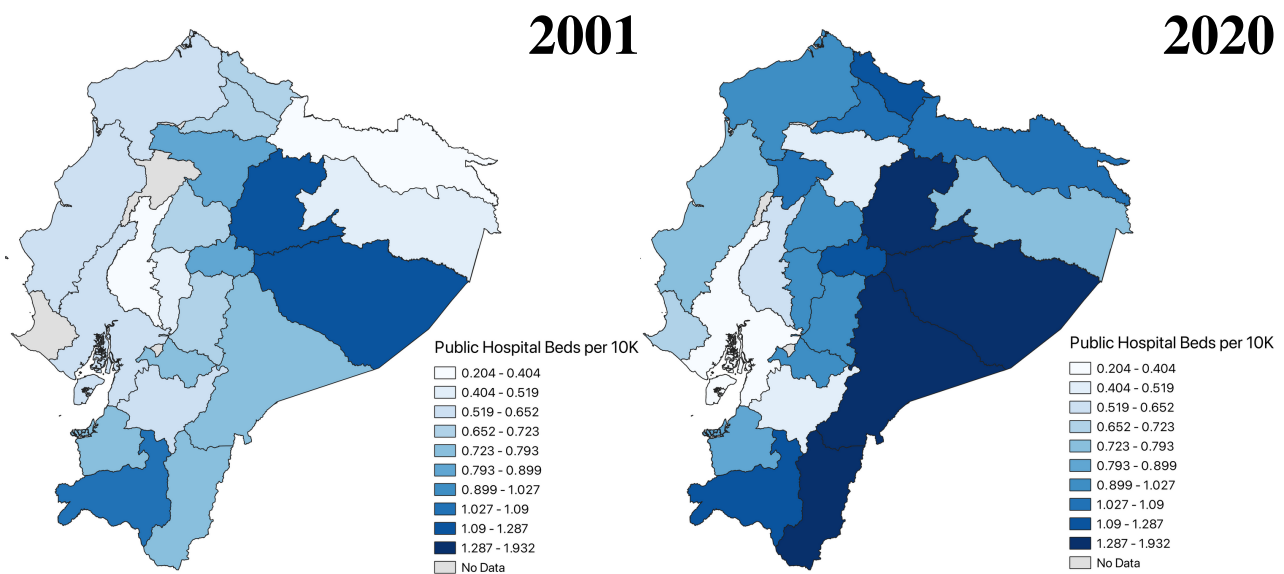
Migration of human capital into the region is one of the key ways to stimulate development. Yet convincing people to move to areas with depleted opportunities for economic growth is difficult, even if the cost of living, recreational opportunities, and other factors would otherwise make the area an attractive place for many individuals and households. However, technological advancements and changing norms have altered the physical location requirements for some jobs and even entire industries. As a result, individuals can weigh factors other than local in-person employment opportunities more heavily when deciding where to live, since they can complete their jobs anywhere with a reliable internet connection.

In recent years, a few municipalities in Appalachia have tried programs in which they offer small relocation grants to households relying on income from remote workers, in an effort to attract these workers to their jurisdiction. These are innovative programs and have been gaining in popularity as remote working becomes more common with shifting preferences and habits among workers and employers. The current programs are relatively small, but reportedly highly successful, according to interviews with the organizations that provide them. However, there are still numerous unanswered questions about the mechanisms by which these programs work, and the magnitude of the benefit they provide for the locality.

We intend to develop and distribute a survey for households who applied for and/or received one of these relocation incentive grants. We see this as the first step in a larger research program to understand the willingness to relocate to Appalachia—we expect this to inform a large randomized controlled trial to evaluate the propensity to move to Appalachia and how it may vary following this type of campaign. This work will provide valuable insight into these programs for policymakers in this region and others as they weight their options for driving sustainable economic development.

Healthcare Investment and Infant Outcomes

Ecuador went through a transformation in its health sector from 2000-2020, dramatically increasing spending and public service provision in the sector. Meanwhile, it saw a precipitous decline in infant and maternal mortality. We're interested in investigating the impacts of these expansions in public capacity, and the factors contributing to the country's ongoing success story.



Ecuador is relatively unique in the amount of data that it makes publicly available, including data on use of the health care system. We have micro-data from 1997-2020 from Ecuador on births, infant and maternal outcomes, healthcare sector capacity, and municipal financing during a period of substantial change in the sector. We plan to use this data to evaluate the impact of improved access to maternal health services on health outcomes.

Healthcare Investment and Infant Outcomes

Access to high quality labor and delivery services has been shown to be an important factor in determining birth outcomes, yet maternal health care can be difficult to access in developing countries, contributing to high rates of infant mortality. The Third Sustainable Development goal aims to end preventable neonatal and under-5 deaths by 2030 with a target of 12 per 1000 live births. Achieving this goal requires understanding how maternal and neonatal health responds to changes in availability of health services.

The aim of this project is to better understand how health policy in Ecuador has reduced health (particularly obstetrics) inequality and to identify the elements of inequality in access that continue to exist. Ecuador converted its health system from a mostly private system with few public clinics to a single payer, full insurance system over the period 2000-2020. It also added hospitals and capacity (Figure 1a and 1b show public hospital capacity in 2001 and 2020 respectively by province).

Yet there remain many areas, particularly in the more remote regions of the country, which continue to lack adequate access, and from which women must travel significant distances to hospitals. The absence of local public hospitals means that women must either give birth at a more expensive private hospital or travel to a public hospital in another region.

Ecuador has been a leader in terms of improvements in the health care sector, and this project aims to identify lessons that other countries can draw from Ecuador's vast expansion in the health care sector and the resulting improvement in health care access and outcomes, as well as identify opportunities for further improvement in Ecuador itself. With forthcoming funding, we will continue to scale up the project's scope and accessibility for researchers and policymakers in the region and around the globe.

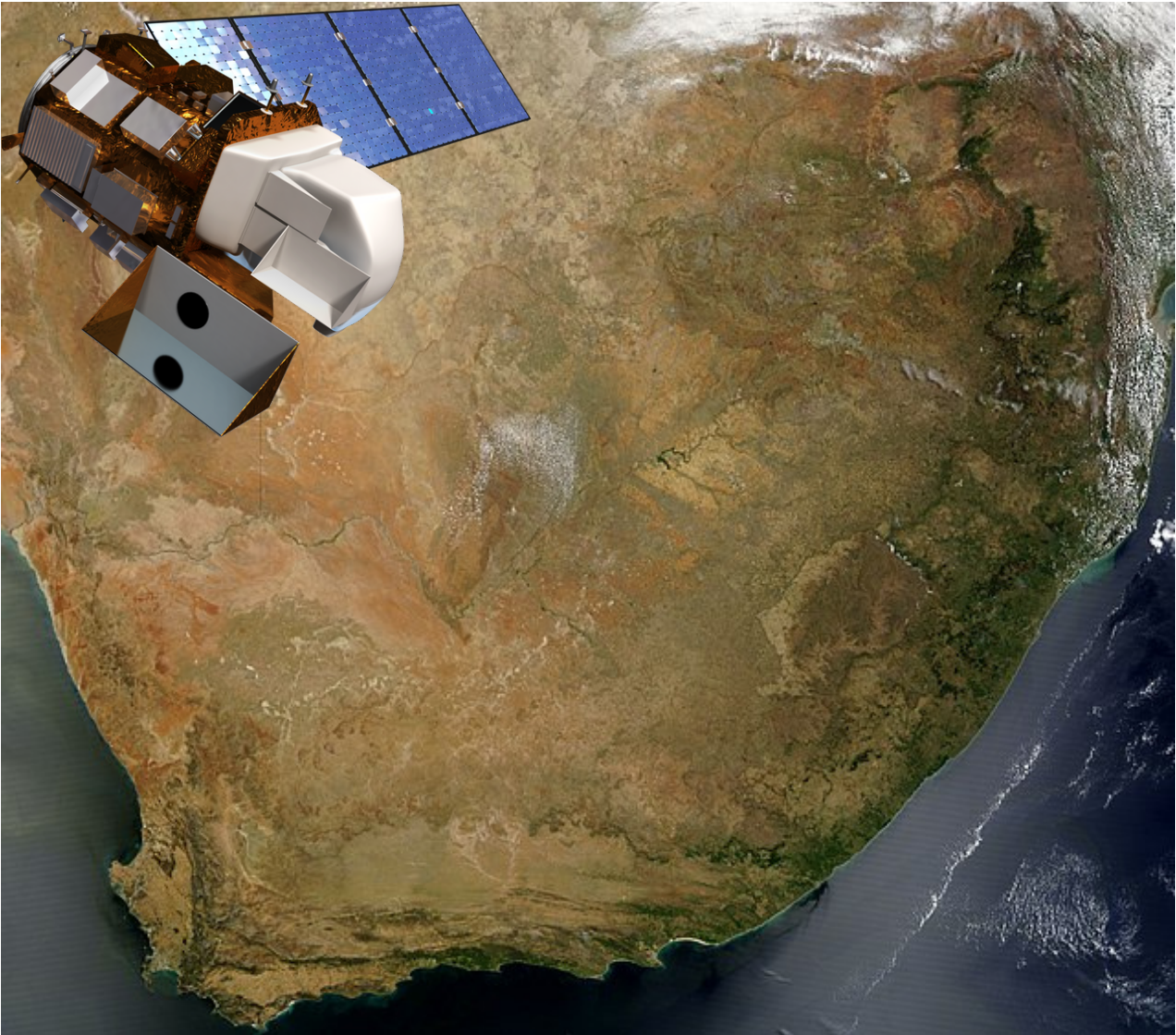
Lesotho Aquifer Remote Sensing Pilot

In collaboration with partners in the field, we are piloting a project to evaluate the extent to which satellite data can be used in order to estimate changes in groundwater depth in Lesotho. Improved monitoring of aquifers would substantially help people to adapt to climate change, as it would improve our ability to measure changes in land use and their impact on groundwater levels.



Lesotho is the primary source of water for South Africa, but it has many competing uses for its water. CRS-Lesotho has been working with communities of farmers to improve water use across several aquifers, but measurement of the impact of these initiatives typically requires direct measurement of water levels in wells. In this project, we will measure the changes in aquifer levels through remote sensing, and use the data collected by CRS-Lesotho in order to analyze the extent to which the GIS models are able to accurately measure differences in aquifer levels.

Lesotho Aquifer Remote Sensing Pilot



This project lays the groundwork for future studies by measuring the extent to which the aquifer levels can be remotely measured, reducing the cost of monitoring and extending potential locations for such work to more remote locations. The tools developed in this project will also be more generally important to our partners in the field in that they will be able to use the tools to oversee the impacts of their land use programs and predict where food security issues may become particularly difficult.

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