

GLOBAL KNOWLEDGE INITIATIVE

2012 – 2013 Annual Report

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GKI: SUPPORTING RURAL LIVELIHOODS THROUGH INNOVATION

Through our Learning and Innovation Network for Knowledge and Solutions (LINK) program, we support global teams as they build purpose-driven networks capable of delivering solutions to rural communities, such as in Rwanda and Kenya.

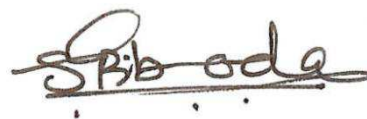
Letter from the Chairman

In January 2013, India released a new Science, Technology, and Innovation (STI) Policy that aspires to set the country on a path to more sustainable, inclusive development through investment in and application of STI. The policy asserts that the “country’s global competitiveness will be determined by the extent to which the STI enterprise contributes [to] social good and/or economic wealth.” The policy calls for, among other things, linking the contributions of science, research, and innovation with the inclusive economic growth agenda; enhancing skills for the application of STI among youth; and increasing society’s appreciation for STI as tools for problem solving and wealth creation. Helping the country realize demonstrable progress on these priorities represents a major focus of my work as the Prime Minister’s Advisor for Innovation and Public Information Infrastructure.

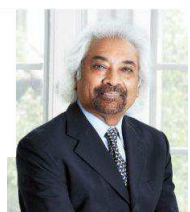
That said, these priorities are not India’s alone. They represent universal aspirations of those of us who understand the important role that STI plays in promoting socio-economic development. The Global Knowledge Initiative (GKI), for example, was born out of a desire to better align the resources and expertise of the international STI community to global development. The 200 university presidents that convened with me and other development leaders at the 2008 Higher Education for Global Development Summit called for a new model for engaging higher education and research institutions in the work of international development. We created GKI as a response to this call. Five years later, I am proud of GKI’s continued commitment, first to solving development problems, then to promoting excellence in STI. Too often, we reverse the order of these objectives, choosing rather to focus on advancing STI rather than addressing the needs of the global poor.

We look ahead to the next year with excitement, both for expanding our programming into new geographies, and for deepening relationships in places where we currently work. We remain humbled by the generosity and commitment of our partners worldwide. To the expanding number of people and institutions with whom we work — we thank you for your collaborative spirit and your dedication to global development.

We invite you to review our Annual Report to learn about what GKI was doing in 2012-2013, and where we are heading next in 2014. For your continued support and interest in GKI, I thank you.



Sam Pitroda
Chairman



Letter from the Chief Operating Officer

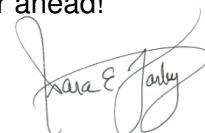
Dubbing this moment in time “*The Collaboration Era*,” GKI issued a call to global innovators and development practitioners to become “Super Collaborators” — people adept at uniting disparate ideas and resources to solve complex challenges. For some, collaborating comes naturally. For others entrenched in disciplinary, industrial, or geographic silos, boundaries thwart collaboration. The result: mis-aligned incentives, untapped resources, and duplicative efforts.

In June 2012 I joined Harvard Business School’s Karim Lakhani and other thought leaders at the White House Summit on Collaborative Innovation. Sharing his research on the relationship between collaboration and problem solving, Lakhani offered some provocative findings from his earlier work. First, the likelihood of a problem being solved greatly increases with the degree of diversity among the solvers. Even more shocking, the chance a person solves a problem has little to do with whether they hail from the discipline from which the problem emerged. Need a challenge in agronomy tackled? Find a molecular biologist (not just an agronomist). In short, throwing difficult problems at specialists within narrow silos constrains problem solving and fails to adequately leverage the larger accumulation of knowledge (Lakhani et al 2007).

Thinking about the complex development challenges of today — water insecurity, disease, climate change — transformational innovation is required. Yet most of us solve problems with those whom we already know. Unfortunately, insular “cliques” make small advances. For innovation on the scale needed to transform global development, Super Collaborators who span cliques, disciplines, and national boundaries are necessary. Lakhani’s work testifies to the cost of failing to have such diversity. To usher in the solutions needed for the world’s most pressing problems, we must learn to magnify the problem solving power of diverse solvers who in turn must learn collaboration. For the sake of development, it’s time we put the collaboration into innovation!

GKI wants to unleash a tsunami of change predicated on these insights. We want a world in which 7 billion people are equipped as 7 billion problem solvers. We want development challenges for which resources are patchy, non-existent, or inequitably distributed to attract the attention of Super Collaborators. We want to help train those Super Collaborators to unpack challenges and triage them to teams that can most effectively tackle them. We want to galvanize collective action and radically enhance the rate and impact of innovation.

I am proud to say that on the brink of our fifth year in existence, GKI has demonstrated that we can spark a movement. We have engaged hundreds of people in our training program, network design practice, and in our various initiatives aimed at developing healthy innovation ecosystems in which solution-driven networks can emerge. For my team and my advisors’ support, I am humbled and grateful. To our partners, whose vision and thirst for change fuels our work, we aspire to support you along your innovation pathway and are heartened that you’ve asked us to join you on your journey. Best wishes for a bountiful year ahead!



Sara E. Farley
Chief Operating Officer



The Global Knowledge Initiative's mission is to forge, optimize, and sustain knowledge partnerships between the people and institutions of higher education and research.

We catalyze purpose-driven networks to solve shared challenges in science, technology, and innovation.

About the Global Knowledge Initiative

How We Work

The premier challenges of today — saving the lives of women and children at birth, reducing waste and spoilage in the food chain, minimizing water insecurity in arid and semi-arid landscapes — are complex and multi-sectoral. Solving these and other problems demands that we create bold new ways of organizing people and resources that cut across traditional sectoral, disciplinary, and geographic divides. Collaborative innovation networks offer a way to align resources and partnerships toward shared goals. Building and supporting such networks represents a cornerstone of our work.

Guided by the challenges offered by our partners, we help researchers, entrepreneurs, and others **locate** resources critical for problem solving; **enable** effective collaboration by building skills and designing shared agendas; and **connect** resources and partners into durable networks; all to **solve** explicit development challenges pertinent to science, technology, and innovation. These four steps — **Locate**, **Enable**, **Connect to Solve** — underpin our systematic approach to building and optimizing solution-driven networks.

Locate ... Enable ... Connect to Solve



How We Got Started

The Global Knowledge Initiative (GKI) originated from the 2008 Higher Education Summit for Global Development convened by the US Secretaries of State and Education and the Administrator of the US Agency for International Development. Attended by more than 200 university presidents, heads of technology firms, and philanthropists, the Summit identified the need for a “clearinghouse for resources and information to help build knowledge partnerships that can tackle development challenges.” Chief Operating Officer Sara Farley together with Chairman Sam Pitroda and Advisory Board Co-Chair Nina Fedoroff established the Global Knowledge Initiative as a response to this call.

How We Choose Challenges to Solve

Not every challenge facing the world today can be addressed through science, technology, and innovation, yet many can. To maintain a clear focus, we address challenges that align with these criteria:

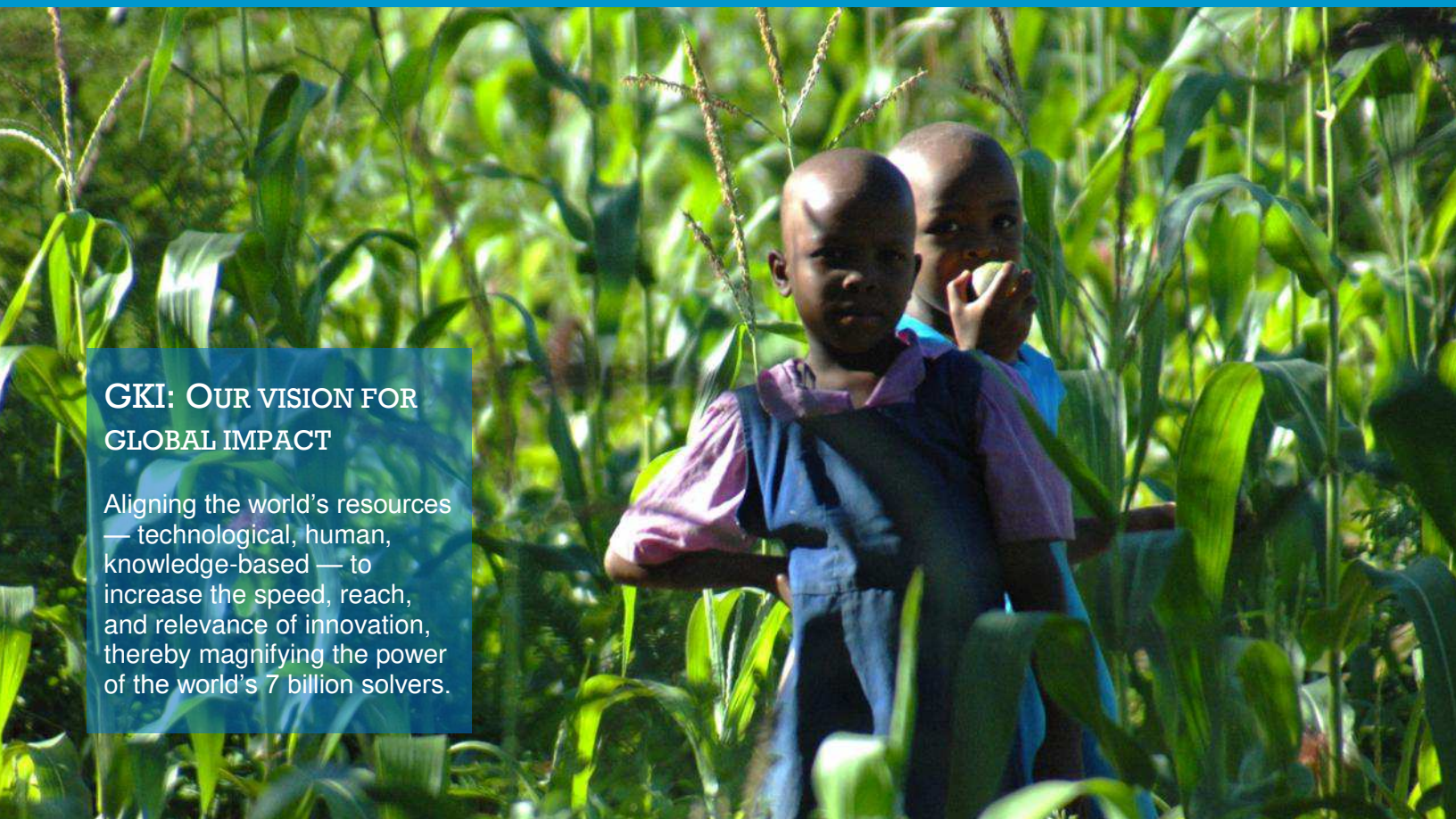
- The challenge constitutes a **shared concern** for developing and developed country partners.
- The challenge relates to **science, technology, and innovation**.
- Solving the challenge will **improve the lives of thousands, if not millions**.
- The challenge is germane to the lives of those **people living on less than \$2 per day**.
- Solving the challenge **deepens capacity** for science and engineering training, research, and innovation.
- A pre-identified **community of implementers** commits to implementing the solution within 3 years.

We are currently demonstrating impact through initiatives in East and Southern Africa, South and Southeast Asia, and the United States. Our global network of partners supports activities in these focal geographies and other places around the world. We look forward to expanding our reach and impact in the coming years.

Our Work

GKI: OUR VISION FOR GLOBAL IMPACT

Aligning the world's resources — technological, human, knowledge-based — to increase the speed, reach, and relevance of innovation, thereby magnifying the power of the world's 7 billion solvers.



WHAT DID GKI DO IN 2012-13?

A Year in Review

The fourth full year of GKI's operations reflected steady progress toward our goal of transitioning from a start-up organization to a sustainable nonprofit that delivers value and impact. Over the last year, we served 150 participants through our collaborative innovation training program, bringing the total number of beneficiaries we have trained to date to more than 430. Participating in our network design program, 29 organizations took part in problem-solving facilitations organized by GKI in 2012-2013. Further, over 34 organizations are now actively involved in our two Learning and Innovation Network for Knowledge and Solutions (LINK) pilots in East Africa, with partners spanning four continents.

A few highlights from 2012-2013 bear mentioning. In April 2013, GKI was named one of the top 100 most innovative organizations of the next 100 years. This humbling designation comes courtesy of the Rockefeller Foundation. As part of its centennial celebration, the Foundation screened thousands of nominees to find the 100 that best portray innovative characteristics such as catalytic innovation, spark, and impact. We are honored that the Foundation decided GKI — and our LINK program — merited inclusion among their top 100 list. GKI proudly credits this honor to the hundreds of colleagues, partners, and supporters who have contributed to GKI since we began operations in 2009.

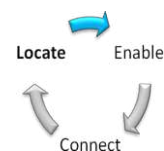
The 2012-2013 year brought other noteworthy highlights as well. Geographies not previously featured in our work expressed demand for our programs. The Universiti Teknologi Malaysia (UTM), for example, invited GKI to design a research-to-action program that engages university faculty and students on community-based water challenges. With an expected launch of Fall 2013, the LINK Malaysia program is set to be our largest, most scalable program yet, with a planned expansion from Malaysia into Laos, Cambodia, and beyond.

A heightened emphasis on skill building for collaborative innovation across our programs represents another feature of 2012-2013. Realizing that skill gaps often hamper network members' ability to work effectively together, we expanded our training portfolio over the last year. This skill building orientation has led to exciting partnerships with organizations like the UN Educational, Scientific, and Cultural Organization (UNESCO) and the US-based National Collegiate Inventors and Innovators Alliance (NCIIA). We believe trainings offer an effective way to serve large cohorts of problem solvers, providing GKI a potentially faster pathway to impact at scale.

Finally, GKI took on three new full-time staff members who each bring a unique mix of professional skills, passion, and creativity to GKI. The additional staff capacity has provided GKI a sound foundation on which to grow our programs, both in terms of the number of participants and geographies served.

LOCATE

Find resources and track needs



Program I: Needs Analysis, Research, & Evaluation

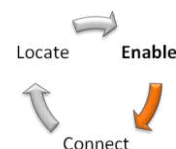
Any challenge to socioeconomic development is shaped by factors — political, social, cultural, and economic — unique to its place of origin. Efforts to create sustainable solutions to challenges must contend with these factors, or risk being derailed. This holds especially true for such dynamic contexts as Afghanistan and Pakistan, where our second LINK pilot launched in 2011. The LINK pilot winner, a joint team of researchers from Kabul University and the University of Agriculture, Faisalabad, sought to boost seed technology research and capacity in Afghanistan as a way to improve agricultural yields. However, the team had to overcome a significant challenge before research and training became a reasonable option: filling in the major data gaps pertinent to the seed technology landscape in Afghanistan. GKI supported the LINK team in performing a comprehensive context analysis, inclusive of interviews and desk research, which frames and sharpens the picture of Afghanistan's seed industry. The resulting *LINK Analysis: Afghanistan*, downloadable on GKI's website, presents a fresh perspective on Afghan agriculture and opportunities for collaboration.

Program II: Coalition Building & Network Design

Increasingly, organizations large and small use networks to grapple with complex, interconnected global challenges. From the United Nations' Sustainable Development Solutions Network to the World Bank's new network of African Centers of Excellence, emerging networks span the globe. GKI knows networks have a distinct capability to mobilize distributed resources and partners for problem solving. That said, we also know that networks achieve the most when partners are aligned around a shared vision and have clear roles vis-à-vis their other network members. GKI helps networks design shared agendas and create strategies for collaborative innovation, all with the aim of enhancing the collective impact of network partners. For example, GKI facilitated a network design session with the US Agency for International Development's Higher Education Solutions Network (HESN) — composed of 8 global university-led teams — in April 2013. GKI helped HESN Labs identify opportunities to share resources and tackle common problems — a vital first step toward ensuring their network delivers more value than individual institutions could achieve on their own.

ENABLE

Build human and institutional capacity



Program III: Trainings

GKI forged a partnership with NCIIA, an organization supporting technology innovation and entrepreneurship at nearly 200 US universities. Together, we delivered two Xcelerator training programs for Saving Lives at Birth (SLAB) grantees, the first in Arusha, Tanzania in January 2013, and the second in Washington, DC in July 2013. Through SLAB, health innovators receive support to develop and scale transformative prevention

and treatment approaches for pregnant women and newborns. For these innovators, the stakes are high: saving the lives of some of the world's poorest and most vulnerable people at a critical point in their lives. The Xcelerator training intensive helps these innovators create a strategy for reaching impact at scale. Integrating content design, facilitation, and training, GKI organized and delivered modules on context analysis, understanding users and payers of an innovation, and anticipating and mitigating risks, among other collaborative innovation-related topics. Through Xcelerator, the NCIIA-GKI team trained over 50 health innovators from around the world in the last year.

Program IV: Policy & Strategy

Collaborative innovation offers a pathway to solutions, not only for individuals and institutions, but also for states, regions, and countries. In the US state of Georgia, for example, the state legislature, university administrators, and corporate leaders appreciate that international collaboration offers a way to address problems at home *and* abroad. GKI's Sara Farley was invited to keynote the 2012 Legislative Roundtable organized by Georgia Tech University, which convenes state legislators annually to discuss science and technology issues critical to the state of Georgia. Clarifying the ways Georgia might manifest its own vision for international collaborative innovation served as the focal point for engagement with GKI. Emerging from the Roundtable, a consortium of universities committed to enhancing science, technology, engineering, and math (STEM) education in Georgia and Africa has laid the groundwork for network design and collaborative problem solving.



Program V: Learning and Innovation Network for Knowledge and Solutions (LINK)

The LINK pilots in Rwanda and Kenya provided GKI with an invaluable opportunity to test and refine the LINK model. Looking ahead to a scaled LINK program in Africa and Asia, we asked ourselves an important question: How might we support collaborative innovation networks in ways more efficient, effective, and with greater long-term impact? Three main lessons were revealed through this process: (1) the lack of global network facilitators constitutes a rate-limiting step for scaling LINK in the region; (2) trainings provide a means to expand the scope of LINK participation and benefits; and (3) seed money offers a way to jumpstart the collaborative innovation efforts of new networks. Based on lessons learned, LINK now features three distinct pathways to building collaborative innovation networks globally: for LINK Winners, LINK Finalists, and facilitator trainees. All of these LINK participants will benefit from a greater emphasis on skill-building. Additionally, LINK Winners will now receive a small seed grant to facilitate specific collaborative innovation activities prioritized by the partners engaged.



The LINK Kenya Challenge:

How might we improve farmer incomes and promote agricultural productivity in Kenya's arid and semi-arid lands through rainwater harvesting?



GKI's Achievement Through LINK:

Enabling problem solvers from research, industry, and academia to cross boundaries — geographic and disciplinary — and join in solving the world's toughest challenges.



WHAT DID GKI DO IN 2012-13?

Forged purpose-driven network to boost Kenyan farmers' income

In Kenya's arid and semi-arid lands (ASALs), which constitute 70% of the country's landmass, agricultural communities face a dire and worsening situation. Droughts that previously came every ten years now recur every two or three. However, a paradox exists: while communities receive as much water annually as they did previously, now the rain comes in fewer but heavier downpours. Against this backdrop, GKI announced Kenyatta University engineer Dr. Kennedy Mwetu and his team as LINK Round III pilot winners in July 2012. With support from GKI, Dr. Mwetu and his team are working to create a global network dedicated to increasing farmer incomes in the drylands through rainwater harvesting. Issues implicated in this challenge include: hydrology, economics, finance, farmer education, etc. As such, creating a sustainable solution calls for collaboration with individuals across diverse disciplines and sectors.

In support of Dr. Mwetu's team and their growing network, GKI has provided technical assistance and training to help clarify the challenge they seek to solve, identify the resources (e.g., technologies, experts) they need, connect them to partners with those resources, and, crucially, create a strategy to guide collaborative efforts. Mwetu's Collaborative Innovation Strategy, facilitated by GKI's network managers, calls for the creation of viable business models for rainwater harvesting, simplifying farmer and investor decision making, and building farmer capacity on selecting, using, and maintaining rainwater harvesting technologies. Guided by these overarching goals, Mwetu's team has forged partnerships with universities in Kenya and the US, African banks, and local and international nonprofits. These partners have pledged 61 distinct resources to help solve this challenge, including laboratory space, data, staff time, and other essential resources. As Mwetu's network grows and attracts resources, the LINK-facilitated research and development efforts increase in speed and scope.

"GKI interacts with the LINK winner to locate resources to solve a challenge. This is a very unique means of support, where they don't give money, but what you receive are skills and facilitation for your network to locate resources helpful to address a particular challenge...LINK helps you address your challenge in a holistic way that brings together the experiences of all experts involved."

*- Dr. Waceke Wanjohi,
Dean of the School of
Agriculture and
Enterprise
Development,
Kenyatta University*

WHAT DID GKI DO IN 2012-13?

Designed and co-hosted inaugural Africa Collaboration Colloquium

GKI joined forces with Pennsylvania State University (PSU) to design the 2012 Africa Collaboration Colloquium to meet the need for better, smarter collaborations to tackle food security challenges. Breaking the mold for a scientific conference, Collaboration Colloquia serve as platforms for matchmaking aimed at creating enduring partnerships that deliver results.

Seven vetted African scientists, each poised to solve a pressing food security problem through their research and innovation, served as the focal points of the Colloquium. Their challenges ranged from increasing the value of small livestock-based enterprises to boosting knowledge flows between farmers and university researchers through mobile phones. They came together with over 50 additional hand-selected participants hailing from 17 institutions that ranged from US universities and international nonprofits to donor organizations. Over two days, the participants engaged in a dynamic program of knowledge sharing, relationship building, and skill development that was designed by GKI to boost the probability of partnership alignment. The event culminated in a round-robin matchmaking session, during which participants rotated in small groups to determine if sufficient opportunity for a durable collaboration existed. The result: an enthusiastic display of commitment and buy-in that included offers of travel, sharing of data, technical assistance, and much more.

Multiple Africa-US teams were forged around specific development challenges. A Colloquium Challenge Prize of \$20,000 enabled a winning Uganda-US team of researchers and educators to develop a "Hay Technology, Production, and Business" training manual and deliver trainings for 70+ Ugandan and Kenyan students, including extension workers, cooperative members, and family farmers. Expected outcomes include the creation of 10 hay-making businesses within the year, and increased youth employment through those ventures.

"To me, this [colloquium] pointed out that together we can solve the challenges of extreme hunger and poverty... Right here, on this table, I got instant solutions. I became excited on the spot!"

- Fred Kabi, Senior Lecturer, Makerere University and one of seven featured African Challengers in Food Security at the Africa Collaboration Colloquium

WHAT DID GKI DO IN 2012-13?

Supported LINK Rwanda team as they pursue groundbreaking research

Since 2011, a Rwandan team led by GKI's first LINK winner, National University of Rwanda (NUR) entomologist Dr. Daniel Rukazambuga, has worked to understand and eliminate a taste defect called "potato taste" that threatens Rwandan coffee. Born out of Dr. Rukazambuga and his team's efforts over the past two years, an international research partnership has now achieved substantial gains in identifying the cause of potato taste and suggesting solutions. In Rwanda, Dr. Rukazambuga works closely with US-based Rogers Family Company, the Rwanda Agriculture Board, Rwanda's National Agricultural Export Board, and others to study the defect. Recently, a team of seven NUR students began working with Rogers Family to raise antestia bugs — the purported cause of potato taste — to study damage caused to green coffee beans by the insect.

In the US, Dr. Thomas Miller and his colleagues at the University of California, Riverside are working with Rogers Family to study green coffee beans. Collaborating with Miller and Rogers Family, Drs. Susan and Charles Jackels, at Seattle University and the University of Washington, Bothell, respectively, study how potato taste manifests itself chemically in coffee beans. In France, CIRAD's Dr. Christian Cilas unearthed evidence from research in Burundi that is useful in defining potato taste's chemical footprint. Dr. Cilas presented findings at the 2012 Association for Science and Information on Coffee Conference in Costa Rica. This global consortium believes it is close to a breakthrough that may help Rwandan farmers eliminate potato taste. They are working diligently to ensure that these farmers can grow their high-quality coffee without this costly threat. Dr. Rukazambuga and other network partners are organizing an international specialty coffee conference for early 2014 in Rwanda to share insights gained and mobilize additional resources for problem solving.

"Communication led by GKI encourages LINK members to share ideas and resources, which has been very important for helping our network get things done effectively. GKI updates let us know who is doing what, and help keep us moving."

*- Dr. Mario Serracin,
Coffee Agronomist,
Rogers Family
Company*

Launched training-of-trainers program in East Africa

With a goal of building a lasting collaborative innovation skills base in East Africa, the UN Educational, Scientific, and Cultural Organization (UNESCO) tapped GKI to develop a long-term "Innovation Systems Leadership" training-of-trainers program in Tanzania. In collaboration with the Nelson Mandela African Institute of Science and Technology (NM-AIST) in Arusha, GKI trained the first cohort of trainers in August 2012. The curriculum included instruction on the innovation systems framework, clarifying the context of innovation challenges, and resource stocktaking for problem solving. GKI returned to Tanzania in January and April 2013 to support the trainers as they delivered their first trainings to local entrepreneurs hailing from Tanzania's agriculture, mining, manufacturing, and other sectors, and policymakers involved in setting the country's science, technology, and innovation (STI) policy. Subsequent trainings for policymakers, researchers, and entrepreneurs led by the Tanzanian trainers will follow throughout 2013 and beyond.

UNESCO, GKI, and NM-AIST seek to use this training-of-trainers course as a vehicle for building the capacity of Tanzanian government, industry, civil society, and universities to utilize STI for national and regional development. Specifically, the partners aim to support the emergence of a sustainable Center of Excellence for Innovation Systems Leadership Training at NM-AIST over the next three years. Building the capacity of innovation actors to collaborate, innovate, and solve problems in teams represents a fundamental aspect of GKI's mission. Through our trainings, GKI invites individuals to see their world not as a stagnant environment in which problems linger and resources go untapped, but as a dynamic innovation ecosystem in which they are empowered to pursue partnerships and explore solutions in new, exciting ways. The result: new innovations, ventures, businesses, and communities with hope.

It has been such a wonderful time during training. I must admit: it was an eye opening and I fell in love with the methodology that GKI is adopting.

*- Ahmad Kipacha,
Lecturer, Nelson Mandela Africa
Institute of Science and Technology,
Arusha*

WHAT DID GKI DO IN 2012-13?

Advised the Government of Rwanda on their Science, Technology, and Innovation Policy

Rwanda's guiding policy document, Vision 2020, sets ambitious goals and targets for the country's socio-economic transformation, including raising annual per capita income from \$200 to \$900 and halving the poverty rate. Science, technology, and innovation (STI) in the form of improved crop varieties, better trained medical professionals, and enhanced local manufacturing capacity constitute vital inputs to social and economic progress in Rwanda. Despite exciting advances to the country's STI capacity, particularly in terms of the numbers of students graduating with STEM degrees, Rwanda's STI resources have yet to be fully utilized for the country's development.

The 2005 National STI Policy aims to provide a framework for boosting the contribution of STI to Vision 2020 achievement. However, as of 2013, proponents lacked a clear understanding of how well the policy was contributing to Vision 2020. As such, the Ministry of Education (MINEDUC) initiated a review of the STI Policy in partnership with the UN Economic Commission for Africa (UNECA) in April 2013. Goals for the review included evaluating how the STI Policy's objectives have been implemented on the ground in Rwanda and identifying specific successes or gaps in implementation. Understanding GKI's vested interest in Rwanda's STI policy infrastructure, MINEDUC and UNECA invited GKI to perform the review.

Spanning just over four months, GKI engaged over 300 stakeholders in the review process through interviews, surveys, and facilitated workshops. In addition to providing specific findings and recommendations pertinent to the policy, GKI created notional indicators for evaluating STI-related progress in the years to come; the 2005 STI Policy included neither baseline data nor targets for progress needed to reveal whether STI investments elicited improvements. GKI's evaluation report is expected to trigger both an update to the STI Policy and the creation of a strategic implementation plan inclusive of a robust monitoring and evaluation framework.

We have been privileged to work with GKI [through the STI policy review]. As a staff, they are passionate about seeing science, technology and innovation change lives in Rwanda.

- Remy Twiringiyimana, Ag. Director General, Science Technology and Research, Ministry of Education, Rwanda

Spring 2012

Keynoted the Asian University Presidents' Forum

Organizers of the Universiti Teknologi Malaysia (UTM) University Presidents' Forum invited GKI's Sara Farley to share ideas for enhancing Asian university engagement with the over 100 university leaders convened for the event. With a focus on maximizing partnerships for research, innovation, and student engagement across Asia, Sara's presentation precipitated planning of the forthcoming LINK Malaysia program.

Partnered with Youth Agency for Development of Science, Technology, and Innovation (YADSTI) of Kenya

GKI and YADSTI, a Kenyan civil society organization focused on empowering youth through STI, developed a plan together for a distributed network of STI Hubs through which Kenyan youth can access a professional network, entrepreneurship training, and mentorship. Intended to be cornerstones of YADSTI's operations, the STI Hubs were designed to help boost student empowerment and employment in STI-related fields.

Launched design of "Innovation Systems Leadership" training-of-trainers program for East Africa

GKI began designing the curriculum for the Tanzania-based training-of-trainers program created in partnership with the Nelson Mandela Africa Institute of Science and Technology (NM-AIST) in Arusha. Sponsored by the UN Educational, Scientific, and Cultural Organization, the curriculum design process included a global review of best-in-class scholarship pertinent to collaborative innovation networks and strengthening innovation systems.

Attended White House Summit on Collaborative Innovation

GKI's Sara Farley attended the invitation-only event hosted by the White House Office of Science and Technology Policy, the Case Foundation, and the Joyce Foundation. The summit brought together hundreds from federal government, private sector, and civil society to discuss how public sector prizes might be used to spur innovation.

Presented on network insights at Gordon Research Conference

An international science and technology forum, the Gordon Research Conference serves as a platform for discussing frontier issues in research. Organizers invited GKI to present insights on network dynamics and implications for collaborative innovation, as informed by our experience in piloting the LINK program in East Africa.

2012 – 2013 HIGHLIGHTS



TRAINING TRAINERS IN EAST AFRICA

GKI partnered with UNESCO and the Nelson Mandela Africa Institute of Science and Technology to create a training-of-trainers program for innovation systems leadership in Tanzania.

Announced LINK III Winner in East Africa

The GKI Technical Committee selected Dr. Kennedy Mwetu of Kenyatta University as the LINK III Winner based on the technical merit and potential development impact of his challenge. Filters used to assess the submitted Requests for Engagement included the degree to which solving the challenge might improve the lives of thousands, if not millions; and the degree to which collaboration will advance progress on the challenge within three years.

Trained Tanzanian trainers in essential collaborative innovation skills

GKI delivered our inaugural training-of-trainers program for 18 vetted faculty members hailing from NM-AIST and the University of Dar es Salaam in Tanzania. Sponsored by UNESCO, the training was designed to equip the faculty members with the content knowledge and pedagogical skills required to deliver subsequent trainings to policymakers, researchers, and entrepreneurs.

Co-hosted inaugural Africa Collaboration Colloquium (ACC) with Pennsylvania State University

Breaking the mold for scientific conferences, the ACC provided potential partners a way to locate and connect with one another in real time. With a focus on forging collaborations that deliver solutions to specific African food security challenges, the ACC garnered support from the Rockefeller Foundation, PepsiCo, and others.

Created three-year vision for “Innovation Systems Leadership” training-of-trainers program

Committed to changing the landscape of innovation systems leadership in East Africa, GKI, NM-AIST, and UNESCO together developed a three-year vision for training trainers. The vision culminates in the creation of a Center of Excellence for innovation systems leadership training at NM-AIST.

Launched GKI Blog

The tempo and variety of GKI's operations continues to grow. As such, we needed a dynamic platform to communicate with our partners at home and abroad. Enter: the GKI blog. Follow our work here: <http://globalknowledgeblog.wordpress.com>.

Released first “Collaborative Innovation Insights” publication

GKI created this publication series as a way to share our perspective on how our organization and others design and optimize knowledge networks. Our hope is that by testing our ideas and learning from others, we all might accelerate our progress toward best practice.

Facilitated Global Women's Scholars Network (GWSN) in creating shared vision for collaboration

Aiming to assist the nascent Global Women's Scholars Network, GKI facilitated a discussion among GWSN leadership to frame their challenge and set actionable goals for the coming five years.

Signed Memorandum of Understanding (MOU) with Africa Centre for Technology Studies (ACTS) in Kenya

With a shared commitment for innovation systems strengthening in East Africa, GKI and ACTS signed an MOU highlighting multiple partnership pathways our organizations will pursue together. Specifically, we aim to conduct joint research and trainings together for colleagues in Kenya and beyond.

LINK I team member presented initial findings at international coffee conference

Dr. Christian Cilas of CIRAD in France presented findings on the chemical associated with the potato taste defect at the Association for Science and Information on Coffee Conference in Costa Rica in November 2012. He gathered this data by analyzing samples taken in Burundi in the 1990s in collaboration with the Pasteur Institute.

Designed and led expert focus group to inform Georgetown's Global Food Security Program

Through a facilitated focus group with food security experts from industry, academia, and government, GKI elicited valuable insights on the demands facing global food security experts. These findings were used to explore the formation of a novel graduate degree program that combines core studies in life sciences, policy, and international development with curricula in key collaborative innovation skills such as problem framing.

Released draft of LINK Analysis: Afghanistan for comment

GKI released its LINK Analysis: Afghanistan for vetting from experts, partners, and other stakeholders. The LINK Analysis: Afghanistan takes an innovation systems view of the context for innovation in Afghanistan at the national level, in the seed sector, and at Kabul University.

Held multi-week design intensive with LINK III team in Kenya

GKI and the LINK III team conducted a number of design sessions that united people from multiple walks of life, all with a common interest in creating a sustainable solution to the water harvesting challenge. Focused on clarifying water-related challenges and identifying priorities for action, the design sessions integrated feedback from farmer groups, financial organizations, donors, researchers, civil society organizations, and others.

Signed Memorandum of Understanding (MOU) with Kenyatta University

Highlighting a long-term commitment to collaboration, GKI and Kenyatta University signed an MOU in parallel with the launch of LINK Round III, which is hosted by the university. The MOU provides for a broad range of collaborative activities, such as faculty/staff exchanges and sharing of knowledge resources, among others.

Supported inaugural Xcelerator training with NCIIA in Arusha, Tanzania

GKI came together with the National Collegiate Inventors and Innovators Alliance (NCIIA) to deliver the first-ever Xcelerator training for SLAB (Saving Lives at Birth) grantees. The training focused on preparing participants to achieve impact at scale, with emphasis on understanding users and payers of their innovation and developing a compelling value proposition.

LINK I team member conducted ground-breaking research on green coffee cherries

Dr. Susan Jackels at Seattle University began analyzing surface volatile compounds in various coffee samples to compare good coffee with potato taste defect coffee and batches containing other defects. She now has evidence that suggests it may be possible to eliminate the chemical profile associated with potato taste by treating raw beans with ultraviolet light.

Penn State-NMAIST-GKI “Eco-health” partnership garnered World Health Organization funding

The World Health Organization awarded the PSU-NMAIST-GKI “eco-health” team a grant to support a research-to-action initiative focused on evaluating changes to Trypanosomiasis hotspots as a result of climate and land use changes. This award was precipitated by a PSU-NMAIST matchmaking event led by GKI in September 2011.

Joined consortium for Africa STEM (Science, Technology, Engineering, and Math) education with Kennesaw State University, Georgia Tech, and CRDF Global

GKI joined forces with STEM education experts from Kennesaw State University and university science development experts from CRDF to seek out and develop opportunities for engagement in Africa. GKI facilitated a network design session to frame the group’s efforts toward integrating the STEM pipeline in Africa and globally.

LINK I team member made strides in identifying cause of potato taste in Rwandan coffee

Dr. Borneman of UC Riverside’s Department of Plant Pathology conducted a microbiome of likely potato taste-affected coffee. This resulted in two suspect fungi and two suspect bacteria that may be behind potato taste defect. Next steps include developing a chain reaction process for detecting the microbes, which might be incorporated into a hand-held device that would allow for easy, rapid identification of potato taste-affected coffee.



CREATING SOLUTION-FOCUSED CONVENINGS

GKI designed and co-hosted with Pennsylvania State University the inaugural Africa Collaboration Colloquium, which brought together over 80 global problem solvers to address food security challenges.

Named as one of the top 100 “Next Century Innovators” by the Rockefeller Foundation

GKI was recognized by the Rockefeller Foundation as one of the world's top 100 most transformative innovators of the next 100 years. This humbling designation highlights LINK as an innovative approach to catalyzing systems for solving entrenched challenges.

Facilitated network design session with US Agency for International Development's (USAID) Higher Education Solutions Network (HESN) Lab Directors

GKI was invited by USAID to help the HESN Lab Directors identify opportunities for network integration. Part training and part knowledge sharing opportunity, the session resulted in the Lab Directors highlighting priority resource needs that might be addressed by other Labs, thus providing rationale for network activities.

Initiated review of Rwanda's 2005 Science, Technology, and Innovation (STI) Policy

Upon the request of the UN Economic Commission for Africa and the Rwanda Ministry of Education, GKI initiated a review of the STI policy. GKI employed an innovation systems approach to the review, identifying implementation successes and challenges along four pillars: knowledge acquisition, creation, transfer, and innovation culture.

Released Collaborator's Toolkit to support effective communication among global, distributed networks

GKI's first Global Collaborator's Toolkit provides details on a compendium of communication tools problem solvers can use to: manage team communication and organization; share and author files jointly; create social and collaborative communities; source additional ideas; and access new knowledge resources.

Announced YEIEP (Youth Employment and Income Enhancement Project) as Africa Collaboration Colloquium Prize Winner

With their focus on creating business opportunities for youth through trainings in haymaking, GKI was proud to announce the team from Penn State University (PSU) and Africa Institute for Strategic Animal Resource Services (AFRISA) at Makerere University in Kampala, Uganda as the winners of the Collaboration Colloquium Prize.

Led training demonstrations and stakeholder workshops in Malaysia

To build excitement and engagement among stakeholders — industry representatives, civic leaders, academics, and students — GKI introduced LINK Malaysia and methods for collaborative innovation in a series of workshops and trainings in Kuala Lumpur and Johor Bahru.

Submitted Rwanda STI Policy evaluation report for comment

GKI submitted its evaluation of Rwanda's STI Policy after four months of research. The report included recommendations for updating the policy and developing an implementation strategy for the revised policy.

Designed content and helped deliver second Xcelerator training for Saving Lives at Birth (SLAB) grantees

Building off the success of the first Xcelerator training in Tanzania, GKI and NCIIA partnered to design and deliver a second Xcelerator training for SLAB grantees. This round, GKI took a leadership role in developing course content, which emphasized clarifying the context of innovation and mitigating risks that emerge along the innovation pathway.



SPURRING COLLABORATIVE INNOVATION THROUGH PRIZES

A \$20,000 Collaboration Colloquium Prize enabled a joint PSU-Makerere University team to create and implement a training for Ugandan youth on haymaking as a business.

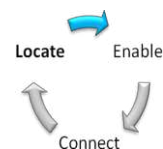
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WHAT WILL GKI DO IN 2013-14?

The Year Ahead

Our plans for 2013-14 include expansion of our LINK programs in Southeast Asia and East Africa. Scaling our collaborative innovation training program and responding to the needs of the global higher education and research communities top the year's priorities. The following highlights offer a glimmer of what is to come.

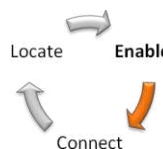
L O C A T E Find resources and track needs



Program I: Needs Analysis, Research, & Evaluation: In support of an international initiative, GKI will work to clarify the context of a major challenge facing Africa: waste and spoilage in the food chain. Aspects of this work include examining previous attempts to solve this challenge and aligning critical actors.

Program II: Network Design: GKI looks forward to continuing our support for USAID's Higher Education Solutions Network. Specifically, we seek to boost the Network's collective impact through direct facilitation and the introduction of our collaborative innovation tools that can augment the network's capacity.

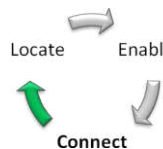
E N A B L E Build human and institutional capacity



Program III: Trainings: Expanding the scope and availability of our training program represents an important focus for 2013-14. For the first time, we will be holding annual trainings in Asia, Africa, and the US, offering interested learners multiple opportunities to participate. Reaching a critical mass of trained collaborative innovators necessary to facilitate solution delivery through networks continues to inspire us.

Program IV: Policy & Strategy: GKI will serve institutions shaping and refining policy and strategy. Among them, GKI plans to partner with the Government of Rwanda as it transitions from reviewing the Science, Technology, and Innovation (STI) Policy to articulating an implementation strategy.

C O N N E C T Foster linkages between people and resources



Program V: Learning and Innovation Network for Knowledge and Solutions (LINK): The next year represents a significant leap forward for the LINK program as we migrate from pilot to scale. With a major focus on university student engagement, LINK Malaysia is set to kick off in 2013-2014. We will also launch a third round of LINK in East and Southern Africa. For the first time, LINK Africa will offer three tracks of engagement to enhance sustainability: for the LINK Winner, LINK Finalists, and facilitator trainees.

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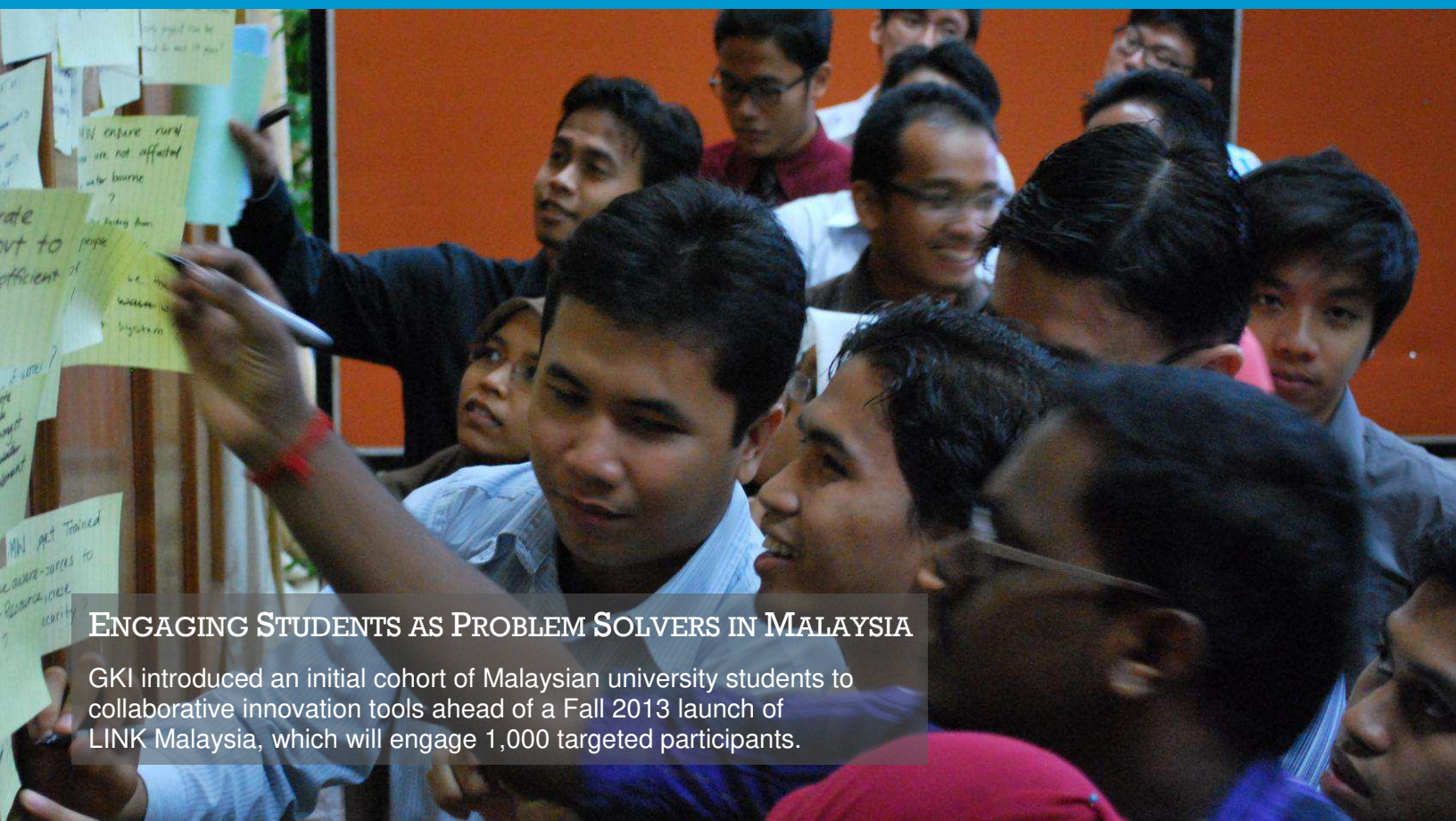
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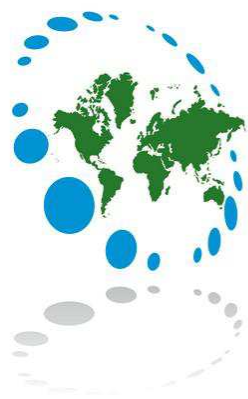
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Our Staff & Advisors



ENGAGING STUDENTS AS PROBLEM SOLVERS IN MALAYSIA

GKI introduced an initial cohort of Malaysian university students to collaborative innovation tools ahead of a Fall 2013 launch of LINK Malaysia, which will engage 1,000 targeted participants.



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GKI ANTICIPATED IMPACT – 2020



- Communities actively participate in the problem solving process
- Entrepreneurial opportunities increase
- More students engage in quality education and research
- Solutions are developed for and distributed to those in need
- Innovations developed through collaboration improve the lives of thousands, if not millions, living on less than \$2 USD per day



Magnify
your power
to solve
the world's
toughest
challenges