Cynthia Mathys ‘10 is elbow-deep in paper pulp in the heart of Nepal, standing next to a vat in a vast field of paper frames that are casting deep shadows in the late-afternoon sunshine. A Nepalese paper-maker is showing her how to smooth the pulp on the wooden frame to create a sheet of lokta paper. The skyline of Kathmandu is visible over the hills. Goats bray in the distance and curious children crowd around, vying for the best view of Mathys’s beginner technique.

Mathys led a group of Cornell students to Nepal in January to work with a Nepalese handmade paper company as part of a new program at Cornell started by CALS professor Ralph Christy. “It was absolutely a once-in-a-lifetime opportunity,” recalls Mathys, who is an international agriculture and rural development (IARD) graduate student. “As trip leader, I had a great experience getting students out into the field to actually see how social enterprises work.”
Christy, professor of applied economics and management (AEM), envisioned a program that would link students with companies, nongovernmental organizations, and communities in developing countries long before he was named director of the Cornell International Institute for Food, Agriculture, and Development in March 2009.

For example, CALS students from different disciplines worked on teams with students from the Department of City and Regional Planning in the College of Architecture, Art, and Planning and from the Cornell Institute of Public Affairs. Students who normally wouldn’t work or take classes together collaborated to address challenges faced in the real world.

“Cornell, and particularly CALS, has an enormous portfolio of collaborations with agribusinesses and research institutions all over the world,” says Christy. “We want to harness these activities in such a way that case studies can be produced, by students and for students. At the same time, we want to give agribusinesses in developing countries practical advice they need to grow. It’s a win-win: companies gain from the students’ ideas, and Cornell students get a unique opportunity to write case studies for use by their peers.”

The SMART program—Student Multidisciplinary Applied Research Teams—was scaled up in 2009 and opened to more departments across the university; 21 students from 10 Cornell academic departments were selected to work with companies in developing countries that want to grow their agriculture-related businesses.

Five student teams went to South Africa, Kenya, and Nepal over winter break in January 2010, where they met with company CEOs and employees, toured facilities, tasted products, analyzed challenges, and presented their recommendations to company leaders. Back at Cornell, they wrote up their experiences as case studies that are being published and presented at a symposium on campus this April.

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—RALPH CHRISTY

“From South Africa to Nepal

Christian Pulver ’11 traveled to South Africa with a team led by Janice Thies, professor in crop and soil sciences, to work with an enterprise called ZZ2. This agricultural conglomerate produces an estimated 35 percent of tomatoes consumed in South Africa and is a world leader in large-scale production. Pulver worked on a team with students from CALS, the College of Agriculture and Life Sciences, and the School of Industrial and Labor Relations to develop a comprehensive strategic plan for ZZ2. The team met with company leaders to gather data and insights, analyzed the company’s current state, and developed recommendations for growth and expansion.

Jenny Nelson ’11 (left) examines a sheet of lokta paper which has been twisted, hand-dyed, and then re-dried to create patterns and textures.

Professor Ralph Christy (right) and CIPA student Beth Robertson (left), talk with an employee of a company they worked with in South Africa.
biological farming practices, what ZZ2 calls “Natuurboerdery,” or nature farming. Pulver and his SMART colleagues evaluated ZZ2 from several angles: farming practices, marketing, and social initiatives.

“By stepping into ZZ2’s world for those few weeks,” Pulver comments, “we were able to understand their philosophy—Create Value for All Stakeholders—which allowed us to develop a ‘systems approach’ for analyzing their business that was useful for them and for us.”

Kristin O’Planick, a graduate student in the Johnson School, went to Stellenbosch, South Africa, with a team that worked with M’hudi Wines, the only black-owned vineyard in South Africa. The Rangaka family bought the vineyard in 2003 without any farming or winemaking experience. In a few short years, with the help of neighboring farmers and a government-backed Black Economic Empowerment loan, the Rangaka family has built a world-renowned vineyard. The M’hudi SMART team, led by Ed Mabaya, MS ’98, PhD ’03, AEM research associate, concluded that the M’hudi story had grown faster than the company itself; their facilities and marketing strategy need major upgrades to promote growth.

“It’s an unusual problem to have: their story keeps spreading, but they need to translate that into consistent sales,” O’Planick says. “The Rangakas need to fund upgrades to the farm. They want to establish a conference facility to entice businesses to spend their meeting dollars at M’hudi to diversify the business and drive more wine sales. The Rangakas don’t know much about the business tourism industry either, but that didn’t stop them the first time.”

The SMART team in Nepal was paired with Himalayan Bio Trade Pvt. Ltd. (HBTL), a company that makes and sells handmade paper, a traditional Nepalese craft. HBTL is the only company in the world with Forest Stewardship Council–certified handmade paper, which may—or may not—be a boon for their marketing efforts. Before coming to Cornell, Cynthia Mathys ran a company in India that developed organic essential oils for the international market, so she was familiar with some of the challenges facing HBTL.

“Our collaborators in Nepal urged us to be practical in our recommendations, not academic,” Mathys says. “They wanted us to help them grow their business. Our diverse competencies really enabled us to do that.”

Upon her return, one of the Nepalese team members capitalized on a prior relationship to connect HBTL with Boxcar Press, a company based in Syracuse, N.Y., that is interested in carrying a line of
handcrafted lokta paper for the high-end letterpress trade.

Rachel Ullman ’10 was a member of the team that went to Kenya to work with a horticultural company, Hillside Green Growers & Exporters. Hillside sells fresh fruit and vegetables—mainly snow peas, mangoes and avocados—to Europe and the Middle East, which requires that they adhere to food quality standards. Ullman and her colleagues had to learn about horticultural exports and certification schemes to identify obstacles and opportunities as Hillside expands its operation.

“I was able to apply what I’ve learned from my AEM specialization in Food Industry Management to a real-world situation. It was a great way to think and see beyond the classroom,” reports Ullman.

**Anatomy of a SMART Trip**

Each SMART trip starts with students writing a profile of the economic, social, and political situation of the country, as well as a review of the particular industry—fruits and vegetables, wines, fruit jams, or handmade paper, in the case of this year’s SMART trips.

The January SMART trips also resulted in planned future collaborations between students and the companies visited: Pulver and another student will return to ZZ2 this summer to conduct master’s degree research. Additionally, Thies, the leader of a SMART team that went to South Africa, hopes to set up a memorandum of understanding between Cornell and the University of Limpopo, in South Africa, to engage Limpopo students in projects with Cornell students. “Cross-institutional partnerships and student-to-student linkages are important to the evolving success of the SMART program,” says Thies.

The SMART trips give students on-the-ground opportunities to learn about small businesses in emerging economies, and a chance to give back. These companies deal with challenges unheard of in the developed world—power outages for 12 to 20 hours a day in Nepal, institutionalized discrimination in South Africa, political instability in Kenya— as well as more mundane transportation, currency, and communication problems. Yet the companies are learning to survive, and even thrive, despite these circumstances.

“We want to help entrepreneurs as they deal with these real challenges, but there’s also a lot we can learn from them,” says Christy. “Their experiences are worth studying. As the global economy grows even more interconnected, we can understand how to weather the storms of economic downturns and other crises by looking at what these businesses are doing.”

Looking toward the future, Christy adds, “CIIFAD wants to continue to grow the program, adding more trips and opportunities so more students can have this wonderful experience and more companies, agencies, and communities can benefit as well.”

Above: Rachel Ullman (second from right) meets Eunice Mwongera (left), CEO of Hillside Green Growers & Exporters in Kenya. Above, right: SMART students work with Hillside, which sells fresh fruit and vegetables for export to Europe and the Middle East.