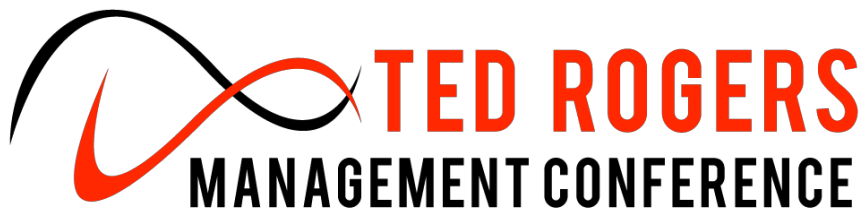


Building Ground Up

TRMC Case 2012

Dago, Kenya



Sustainable Development

"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

- Our Common Future (Oxford: Oxford University Press, 1987).

Poverty Defined...

"Fundamentally, poverty is a denial of choices and opportunities, a violation of human dignity. It means lack of basic capacity to participate effectively in society. It means not having enough to feed and clothe a family, not having a school or clinic to go to, not having the land on which to grow one's food or a job to earn one's living, not having access to credit. It means insecurity, powerlessness and exclusion of individuals, households and communities. It means susceptibility to violence, and it often implies living on marginal or fragile environments, without access to clean water or sanitation."

United Nations Statement – signed by the heads of all United Nations agencies)

Your Mission

Starting now, you have three hours to prepare a business model. You will be given 8 minutes to present it to the Ryerson International Experiential Learning (RIEL) team executives, then 2 minutes for a question-and-answer session.

This is your opportunity to create a realistic, practical business model that has a positive impact (health, water, education, food and agriculture, environment) on villagers in Dago, Kenya.

The business model must specifically address one or more of the community's challenges; include a detailed budget; deliver measurable triple bottom-line impact (profit, people, planet); improve the community's standard of living; be self-sustaining (it must be set up in a manner that allows the villagers to own/operate it after RIEL departs); have a viable annual operating/maintenance cost; be scalable/expandable; must do no harm.

The business model you develop today will be assessed at the end of the three-hour period by the RIEL team for possible execution and implementation in Dago, Kenya in December 2012.



Overview – Dago, Kenya

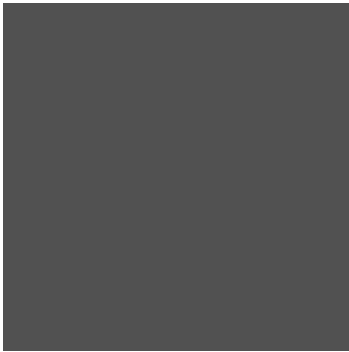
- Population 2,800
- A small farming community in the Nyanza province
- Average family size: 2 adults, 5 children
- 30% are single-parent households
- Polygamy remains common but is in decline
- Christian, with indigenous spiritual practices
- Extremely low literacy rate
- Most speak Luo and are members of the Luo, the third-largest tribe in Kenya
- Swahili and English are Kenya's official languages
- Stratospheric unemployment
- Highly entrepreneurial attitude
- Daily wage is 100 Kenyan shillings (e.g. \$CDN1.20)
- Arid climate faced with extreme drought conditions

Problems: lack of clean water for cooking, bathing, drinking; severe food shortages/malnutrition; high food costs; uncertain and very low family income; HIV/AIDS – widows/orphans; closest healthcare is 50 km away

Challenges: corruption, education (enough schools but lack teachers/resources); energy (lack electricity); lack of communications infrastructure; limited banking access (1 hour to closest bank, 3 hour line-up); 97% live in mud huts with no electricity/running water; girls' orphanage under-funded, no boys' orphanage; lack of business skills; no computer literacy

Opportunities: people of Dago very proactive and receptive to change; everyone's an entrepreneur

Priorities: health, education, food and agriculture, environment, clean water



Ryerson International Experiential Learning

At a Glance

In 2007, the Ryerson Commerce Society (RCS) created RIEL Commerce to give students an international learning experience, while promoting and facilitating inter-faculty student collaboration and research. This initiative offers independent study alternatives and opportunities for students within the Ted Rogers School of Management. RIEL encourages students to think and act ethically as they put everything they've learned in class to work through the development and implementation of sustainable projects that will continue to benefit communities overseas long after the RIEL team's departure.

"RIEL's hands-on, experiential learning puts classroom theories into practice in real-life situations. We recognize that creativity, innovation and knowledge, whether learned in the classroom or in the field, are the key to improving the standard of living in the developing world," says Abdullah Snobar, executive director, RIEL, Toronto. "To succeed and truly grow as humanitarians and entrepreneurs, our students must find the opportunity that is so abundant in every corner of the world."

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RIEL's volunteer teams are deeply committed to understanding and learning about the communities and nations they visit, but they are far from the typical volunteer tourist. As business students with a commitment to people in developing nations, their passion and belief in the power of entrepreneurship sets their efforts apart. They donate more than time. They share their business education and contribute business expertise via projects that are designed to provide measurable, tangible, long-term benefits.

In 2011, RIEL and Students in Free Enterprise (SIFE) Ryerson determined that the village of Dago, Kenya would be the focus of all future sustainable development projects. This recognized Ryerson's pre-existing relationship with Kenya, particularly in the city of Nairobi. It also expands Ryerson's initiatives in an effort to address the ongoing, devastating poverty – a long-standing, deeply rooted issue throughout the world.

In August of 2011, Ryerson students visited the villagers in Dago and conducted a series of at-home interviews with families and small business owners to better identify their problems, challenges, concerns and prioritize their needs. In recognition of the power of women locally, they also met

with women leaders from all of the nearby villages.

Based on the information and feedback gathered through those face-to-face, one-on-one interviews, the students learned that the people see financial literacy, entrepreneurial education and support as well as green energy as priorities within the areas of health, water, education, food and agriculture and the environment.

In December 2011, RIEL and Ryerson team members went back to Dago to set up a microfinance fund, start a financial literacy program for small business and install a solar panel at the girls' orphanage.

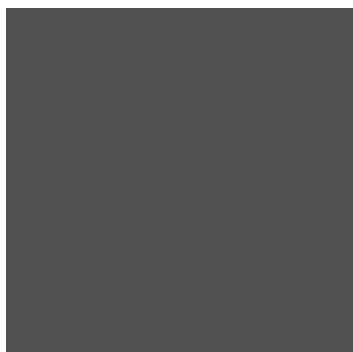
To date, RIEL teams have contributed to communities in Peru, Costa Rica and Kenya, but the real-world experience, expertise and insights they've acquired abroad also enhance and give to their communities at home.

Every December, RIEL teams and Ryerson students will return to Dago, Kenya to check up on the projects they've already put in place and to implement new business projects.

"To succeed and truly grow as humanitarians and entrepreneurs, our students must find the opportunity that is so abundant in every corner of the world."

- RIEL Commerce





People of Dago

Summary

Progress is slow and limited in Dago where the number of widows, orphans and poverty-stricken families continues to increase in a region plagued by HIV and AIDS. Because large families are the cultural norm in a desperately poor region, the loss of one or both parents has a profound impact on the surviving family's struggle to make ends meet. In 2002, Peace Corp Volunteer (USA) built a girls' dormitory that houses 36 orphans, but pulled plans for a boys' dormitory due to insufficient funding.

Health issues are compounded by a lack of awareness around the

importance of clean drinking water as well as a lack of it. Because most treatment and filtration systems are prohibitively expensive, so families rely on a nearby stream, shared with livestock, and a borehole for all water. The contaminated water often gives rise to E. coli, intestinal parasites and other health problems.

Access to a hospital would significantly improve the overall health of the community, but the closest viable medical health center is located 50 km northwest of Dago in the town of Kisii. While there are other medical centers located near the village, they are

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not equipped with sufficient resources to tackle the health related concerns the community members face on a day-to-day basis.

Most of the families in Dago survive on 1.5 small meals a day and those meals are often comprised strictly of carbohydrates. Food shortages due to drought and temperature changes have reduced the food supply and increased food costs. Local conditions make it almost impossible to safely store food for future consumption or sale. As result, farmers' incomes have fallen and are more unstable than ever.

"If I don't get enough money for food, I tell the kids to sleep. They normally go to sleep without food," says an HIV positive widow, with five children, living in Dago.

HIV/AIDS

The Nyanza province has Kenya's highest incidence of HIV/AIDS nation-wide, in a country where 2 million people are infected with HIV/AIDS and Kenyan women are four times more likely to become infected than the men.

As of February 2010, 5,079 villagers in and around the Dago region had enrolled for HIV-related care (including 63 children). Every single one of the children, women and men in

Dago is affected by HIV/AIDS; either someone living in the home has it or is related to someone with it. Because large families are the cultural norm, the loss of one or both parents, has a dramatic impact on the standard of living of immediate and more distantly related families as they struggle to support the remaining spouse and children.

Tradition dictates that widows are inherited – taken on by their late husband's male family members. As a result, some men support two or more families and households. In many cases, the widow didn't know that her husband was positive and that she had been infected. She may then infect her new "husband" merely propagating the cycle of sickness, death and poverty.

Women widowed due to an AIDS-related death are seen as outcasts and no longer considered worthy of being part of the community. They strive to maintain their standard-of-living to prove they should be included.

In June 2007, Dago villager Helida Tito, a widow who cares for her three children and is also living with HIV/AIDS, initiated the Women of Dago Mentorship Program. The mandate is to help stop the spread of HIV/AIDS, teach community members how to live with HIV/AIDS and show the widows that they can support themselves and their children

without a man. The women mentors visit households affected by HIV/AIDS and/or house vulnerable children. To date, the Woman's Mentorship Program has 65 trained mentors (community health workers), four social workers (those supervising mentors) and a liaison officer. The project covers 37 villages within a 50 km radius of Dago. It has cared for 2,947 orphaned and vulnerable children, 779 care givers, (those caring for the orphans and those living with HIV/AIDS), 87 HIV infected orphans and 536 people living with HIV/AIDS. The program has also worked with the Awendo health facility for medication, testing and other health-related treatments and consultations.

As Tito points out, "The changes are big in the community. Before the program came, up to 20 people a day might die of AIDS, but that has decreased to about two deaths per month. A long time ago, if you found you were positive, you were separated. You would stay in your house. No one would come to you." After the institution of the Women Mentorship Program, people now understand that you cannot catch it by spending time or sharing a meal with someone. The mentors have taught widows to live self-sufficiently long after their spouses have left or deceased.

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In January 2011, the program's U.S. funding was cut. Since then the project has been at a standstill.

Water

In Dago, the lack of safe drinking water causes severe problems such as dehydration, starvation, disease, blindness and death. High morbidity and mortality rates in children under five years old are primarily due to water-borne diseases such as

"High morbidity and mortality rates in children under five years old are primarily due to waterborne diseases..."

gastroenteritis, diarrhea, malaria, amoebic dysentery, bilharzia and cholera. Typhoid, malaria, yellow fever, river blindness, sleeping sickness, intestinal worms and scabies may also be issues. Trachoma, one of the most common causes of blindness in the developing world, is linked to extreme poverty and poor sanitation. It is easily spread, especially where there is little clean water to regularly wash hands and faces.

In Dago, water is typically sourced from the local river and a borehole near the orphanage. Women and children make several daily trips to the river and bore hole to collect water and carry it home to their families. Homes do have barrels to collect rainwater but since this region is very arid and has been in drought conditions for years, they depend exclusively on those two sources.

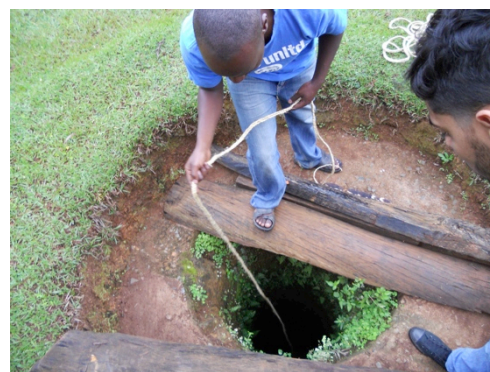
Wells, if they exist, are dug by hand and are structurally dangerous. They often collapse when they get deep enough and the water is polluted, dirty and full of parasites and bacteria.

Flies and other disease-carrying insects are drawn to already dirty water and compound the risk of infection.

Villagers don't understand the potentially lethal hazards presented by dirty water or the benefits of sanitized water, which is not available due to the cost of filtration and treatment. Bathing, dishes and laundry are all done at the river and bore hole.

In Kibera, Kenya, school-based "wash clubs" set up by the African Medical and Research Foundation teach children about hygiene and ask them to take the message home. Diarrhea and intestinal worms have dropped by about 70% in target schools.

People live in mud huts without running water or electricity, which is not available from the main



power grid. Just 5% of homes have pit latrines, with 95% of the villagers using the fields – a situation that can exacerbate issues with ground and stream water.

A few select households get electricity from solar panels, which may not be sustainable as either repair or replacement would be prohibitively expensive in the event of damage. Most rely on paraffin lamps for light and wood/charcoal fires for cooking.

Food

Maize and sugarcane are the main crops. Kale, tomatoes, onions and potatoes are grown in home gardens. A few families have cows for milk, goats for slaughter and chickens for eggs.

Due to its geography, Dago's climate is naturally arid, but global climate change has produced extreme heat and drought conditions that have exacerbated the challenges of farming, food production and food storage. Food shortages are extreme because farmers simply can't grow enough and there is

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unwarranted spoilage. The combination of variable, rising food prices and low, unstable incomes have compounded the already severe nutritional issues.

In Dago, many families survive on 1.5 small meals daily – a subsistence-level, almost exclusively carbohydrate-based diet that negatively affects everything from growth rates to energy levels.

Children and their parents are almost always hungry and under-nourished.

Employment/Income

The villagers have embraced entrepreneurship in the face of a severe lack of employment opportunities in retail, commerce or industry as well as a climate that makes farming a massive challenge. Many, particularly the women,

consistently identify business opportunities and figure out innovative ways of using existing resources to create and operate small-scale businesses. Micro-farming remains key to the survival of the villages despite the fact the region gets virtually no rain and has been experiencing severe drought for years.

Although limited, any excess harvest is sold in the city centers by the women for a marginal profit. Fishing also provides food for at-home consumption and sale.

Locals continue to buy common household products (e.g. brooms and furniture) and souvenirs (e.g. wood carvings, paintings, key chains, necklaces, bracelets, drums) for trade and resale. By 2016, retail giant Wal-Mart plans to offer up to 500 items by 20,000 female artisans in two dozen countries, including dresses from Kenya, which suggests there may be alternatives to farming, fishing and current trading practices.

Women, who are expected to raise kids, cook, clean *and* earn a wage outside the home, tend to be entrepreneurial and proactive although the men typically control 90% of their women's earnings. Because, the women tend to be better credit-risks and more skilled money managers than the men, local organizations often target their support to the women.

Education/Literacy

"...those who have an education, they survive"

- Helida Tito, a Dago Community Mentor

"Education is so important, because if you know what to do and how to do it, you can take action. People who don't have an education are dying - those who have an education, they survive," says Helida Tito, a Dago community mentor.

While Nairobi boasts one of Africa's highest literacy rates at 87.1%, the literacy rate in and around Dago is extraordinarily low. Kenyan children learn to read and write in Swahili during their formative years, but English is taught only in the later grades. In major Kenyan city centers, Swahili and English are used to communicate/negotiate, but in Dago, most residents speak Luo, their tribal language. Very few Dago residents speak English although the men tend to be more fluent in both national languages because they tend to have more education and travel more frequently for commerce.

When many children start grade 1 in Dago, they are uncomfortable with basic words in their mother tongue as well as words that

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describe colours. Many lack a familiarity with numbers. There are enough schools in Dago and

"Education is the key to every door."

- African Proverb

teachers are assigned to each class, but they may not show up regularly. Teachers and students invariably lack the most fundamental tools, such as books, paper, pens/pencils and more.

Children who attend private schools, typically funded by overseas charities and individual foreigners, get an education and "luxuries" such as a bed, light in the evening for homework, regular meals and the time to study because they're not out seeking and fetching food and water. They are very much the lucky and blessed minority.

Communications - Computer/Internet

The closest Internet café is in the town of Kisii, which is 50 km from Dago. Few, if any, families can afford the 100 km round trip taxi fare to Kisii (400 Kenyan shillings), which is close to four times the average daily wage.

Cell phone penetration is high in

Kenya and a surprisingly number of villagers in the Dago region have cell phones with which they may be able to access the internet, use email and communicate via Facebook. Despite the fact, local families are short of basic necessities such as food and water, cell phones continue to be a priority for the villagers. The typical cell phone purchased by low-income rural community members costs about \$10 USD and is operated on a pay-as-you-go basis. It's not unusual to see a man walking through the woods, swinging a machete while chatting on his cellphone.

In your hands...

RIEL, Ryerson and the people of Dago are counting on **you** to come up with creative, innovative, viable business projects that will improve their living conditions on a daily basis.

This is your opportunity to step up and develop smart solutions that fit the practical realities, cultural and economic circumstances in Dago, Kenya.

Epictetus, a Greek sage and Stoic philosopher, said, "Only the educated are free."

You have education **and** freedom.

RIEL gives you the perfect opportunity to pay it forward through innovation, entrepreneurship, initiative and creativity.

Business for a better life – you can make it happen.

"Ryerson needs to stick with Dago. If their efforts fall by the wayside, an entire community will fall with them,"

- George Otiyano Odoyo, a Dago villager.



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“Together we are capable of many things. Together **we** can
change the world, one village at a time.” - RIEL

TRMC 2012

What’s your I.D.?