rebuilding

BY LISA MARSHALL



HAVING ENDURED ONE OF THE WORST GENOCIDES IN HISTORY, THIS TINY AFRICAN NATION IS MAKING A REMARKABLE ECONOMIC COMEBACK — AND COLORADANS ARE PLAYING AN IMPORTANT ROLE



Areas designated as wetlands or wetland buffers should be protected. They reduce erosion and flooding, and provide a habitat for plants, birds and other animals. Wetlands are the major component of Environmental Treatment Zones (ETZs) and help improve water quality and treat wastewater in Kigali Province.



DRY AGRICULTURE

Traditional and commercial agriculture, either in the form of crop cultivation or raising and grazing livestock, should be the primary use in this zone. No future population growth should occur in these areas.



EXISTING FOREST

Existing forests are protected in the interest of wildlife and plant communities, so uses generally are limited to firewood collection for energy needs, plants for medicinal purposes and other types of hunting and gathering.

RE-FORESTATION

Large areas of the Kigali Province are set aside to promote a return to ecological balance. Agro-forestry and grazing are sustainable activities permitted in this zone. Residential uses are not allowed.

URBAN CENTER

The urban center is a mixed-use zone similar to the high-density zone, in building use and size, but with a concentration of regional public and cultural facilities, including hospitals, schools and government buildings.

HIGH DENSITY

Densities in this zone are 250 people per hectare. The residential component in this zone includes multi-story flats above four stories, condo developments and low-standing plots.

MEDIUM DENSITY

Densities in this mixed-used zone average around 85 people per hectare or 17 dwelling units per hectare. Residential uses could include multi-story flats less than four stories tall, medium standing plots and low standing plots on steep slopes.



LOW DENSITY

Densities in this mix-used zone average around 40 people per hectare or 10 dwelling units per hectare. This zone consists primarily of residential with little commercial or industrial uses.





KIGALI, RWANDA — It's been just 48 hours since I stepped off the plane at Kigali International Airport, and already, my preconceived notions about Rwanda have been replaced by a kinder, more hopeful reality — and an understanding of why a growing group of Colorado entrepreneurs are compelled to invest here. The streets are immaculate, with freshly planted palm trees lining the medians, cascading waterfalls adorning the traffic circles and old women in colorful head scarves sweeping the sidewalks with straw brooms. The people are warm and helpful, and thanks to an abundance of omnipresent police clad in bright yellow jerseys, downtown Kigali feels remarkably safe — even to a woman traveling alone. ≫

RURAL RESIDENTIAL

Densities in these zones average about 10

people per hectare, or two dwelling units

per hectare. This zone consists primarily

of low-density residential and small-scale

agriculture and is not well suited for more

lack of road access, steep topography and

intense urban development because of

lack of infrastructure.

My local host for the morning, a sharply dressed Kenvan-American builder named Nathan Loyd, pulls up to my hotel in a sleek silver BMW 600 and off we go, through verdant green banana plantations and endless hills covered in tea and coffee crops, to a scenic 8acre property marked with 29 wooden stakes.

In a few days, he tells me, the bulldozers will be at work here, building a plush 29-home middle-income subdivision — the nation's largest privately owned housing development to date - all with money from Colorado investors. Within months, it will be sold out, he assures. Within a year, those investors will see at least a 30 percent return on their investment. And soon, he hopes, he'll break ground on another one — this one hosting 1,000 homes.

"It's the right place and the right time," says Loyd, 37, noting that as hordes of dispersed Rwandese return to their homeland and investors flock here to cash in on the massive rebuilding effort, local agencies estimate that 2,500 houses per year will be needed. "The first picture that comes to anyone's mind is the genocide. Naturally it was a very horrible event. But because of that barrier I think people are missing out on understanding the current position of Rwanda."

Indeed. Fourteen years after Rwanda endured one of the most savage genocides in human history — an unfathomable 1 million Tutsis and moderate Hutus slaughtered, largely with machetes, in 100 days — the country appears to be outliving the gruesome legacy portrayed in the 2004 film "Hotel Rwanda." The economy is growing at an impressive 7 percent per year clip. Tourism is booming, drawing \$36 million in 2006 - up a whopping 30 percent from the previous year. President Paul Kagame, a former leader in the revolutionary army that helped end the genocide, is broadly lauded as aggressively anti-corruption and skillfully probusiness. And investors and other businesspeople from Colorado are taking notice.

DENVER BACKERS GIVE BOARDING SCHOOL A HIGH-TECH BOOST **BY LISA MARSHALL**

It's 10 a.m. on a Thursday at Son **Rise School in northwest** Rwanda, and the morning bell has just rung, signaling a 30minute slot of "free time." The classroom doors fly open, and out come the students, sprinting across the courtyard lawn in crisp navy school uniforms toward a large blue door labeled "Computer Centre."

They crowd in, some sitting two to a seat, and within five minutes, they are all mesmerized sending e-mails, checking in on their favorite sports teams, learning how to type via an online computer game, and reading the international news.

"I like to write to my new friends in Canada," says Karimu Magana, 12, as he grabs a spot at the last open machine.

Oddly enough, this moment was made possible by a wealthy entrepreneur, a Mexican-food chain, and a host of generous

donors 9,000 miles away — in Denver

In 2004, while on a fact-finding mission in Rwanda, local businessman Gaylord Layton paid a visit to the Son Rise School, a boarding school made up of roughly two-thirds orphans many of whom lost their parents to genocide or the AIDS epidemic. Its founder, Anglican Bishop John Rucyahana, told Lavton about a dream he had: to introduce his students to the global society via Internet-connected computers. At the time, seeing a computer in a Rwandan school at all was nearly unheard of, and Internet connectivity seemed out of the question.

But in April 2007, a package of 200 computers arrived, an Internet connection was established, and today, computer literacy is a regular component of the secondary school (age 12 to 20) curriculum.

Rotary clubs of Westminster and Southeast Denver got them in working order. And Layton has hired a full-time employee to provide tech support and troubleshooting.

Grill donated the computers.

On Feb. 21, Layton and the newly formed Rwanda Leadership Foundation hosted Bishop Rucyahana in Denver for a \$175 per plate gala to raise further funds for Rwandan education.

The bishop founded the Son Rise School in 2001, at a time when many educational institutions were still shuttered in the wake of the genocide. It has since grown to be a national leader, housing and educating roughly 1,000 students.

"We want to train our young men and women into technical subjects - construction, finance and entrepreneurship," Rucyahana said during an interview at the event for ColoradoBiz TV. "To move a nation, we need to be able to graduate men and women who are going to engage businesses Denver-based Chipotle Mexican and manage them with integrity.

Since 2004, when DTC developer John Dick struck up a friendship with Kagame and invited him to Denver for a series of business meetings, the Rwanda-Colorado connection has flourished. Dick, who now lives on the Jersey Islands of the United Kingdom, has been instrumental in wiring much of Rwanda with fiber-optic cable, radically boosting the number of phone and Internet users.

The Rwandan government has since hired Denver/Boulder-based Oz Architecture to craft Kigali's master plan for the coming halfcentury. Third-generation Denver native Gaylord Layton, founder of Formation Technologies, just opened a luxury tourist lodge for those who want to track the rare mountain gorillas. Rob Fogler, a Denver attorney, has launched Thousand Hills Venture Fund, expressly for those who want to invest in Rwandan enterprises, such as Lovd's housing development. And numerous other Colorado players, nonprofit and for-profit alike, have forged lasting ties there.

They contend that Rwanda is not a crippled nation, but rather the emerging economic bedrock on an African continent riddled with problems.

"A lot of people come in with this mindset that they want to save Rwanda," says Fogler, a 39-year-old father of two who left a career as a corporate lawyer to run Thousand Hills Venture Fund. "What I hear in Rwanda, whether it's from government leaders or business people is: 'We are not looking for charity. We are not looking to be subsidized. We want to be taken seriously as a destination for investment."

STARTING FROM SCRATCH

Initially, though, the terms "investment" and "Rwanda" seem hopelessly mismatched.

The three-month 1994 genocide - a ruthless effort by majority Hutu militias to "exterminate" the Tutsi minority - left the nation's infrastructure and psyche in tatters. Schools, hospitals and places of business were shuttered. Thousands of doctors, teachers, business leaders and other educated Rwandans were either killed, committed murder themselves, or fled.

"The reality is that reconciliation in my which lost a million people in 100 days — is not magic," Anglican Bishop John Rucyahana of Rwanda said during a recent visit to Denver. "We are faced with true human loss and human emotions, human hurt, human guilt It's something that you engage with the will to face it constantly and keep your hands on it in order to make the transformation."

Add to the challenges that the country is landlocked and tiny (about the size of Vermont), has the most dense population in Africa (nearly 10 million people), and only 5 percent of the population has electricity, and one might question what people are getting so excited about.

Seated in a bustling American-owned Kigali coffee shop buzzing with foreigners talking deals, Antoine Bigirimana explained it this way:

"Because this is a virgin economy, there is so much to be done, and you almost immediately have an impact," says Bigirimana, a Rwandan-born software engineer who was living overseas when his entire family was killed in the genocide. He returned, nonetheless, in 2002 to help the government teach computer literacy and develop anti-corruption software. Since then, he's spent nine months a year there working on various software projects. He is also Fogler's business partner.

"When I came back, I was convinced there would be a lot of sad faces everywhere, but there aren't. People have moved on," he says, motioning around the busy coffee shop. "There's opportunity to make a real difference here. How many times do you get to do something from scratch?"

RWANDA, BOULDER-STYLE

That notion has always appealed to Carl Worthington. In 1962, the Boulder architect sat down at the drawing board to forge a plan for what would ultimately become the Denver Technological Center — an at-the-time revolutionary blending of mixed-use planning, underground utilities, architectural creativity and attention to landscaping.

Worthington was also instrumental in creating the Pearl Street Mall in Boulder, and the Boulder Greenways Program, a national model for green-space preservation in the face of rapid growth. So when Rwanda President Paul Kagame asked John Dick to recommend a few people to help him transform his capital city into an economic jewel of Africa, Worthington was on the short list.

"John called me one day and said, 'I have

another project for you, but don't hang up until I finish telling you about it,"" recalls Worthington, who went on to arrange a Boulder tour for Kagame during his 2004 visit and show him a slide show retrospective about DTC. "At the end of the slide show, I said, 'We are now looking down on 20 million square feet of development that has been all privately done. It started with

the vision, and then the money came and the corporations came.' That was what sold the president. He looked at me and said 'Carl, would you want to come to my country and help me rebuild it?"'

Today, Worthington's firm, Oz Architecture, is four years into an ambitious fiveyear, multimillion dollar contract with the Rwandan government. It chose Oz to develop a master plan for the 700-square-kilometer region of Kigali for the next 50 years, incorporating a new

\$150 million international airport (which could break ground within the year), a new "Fitzsimons-like" medical complex that would draw patients from around East Africa, a new compact city center, and a new Rwandan Technological Center. Oz is collaborating with Denver design firm EDAW, environmental engineering firm Tetra Tech, Engineers Without Borders, numerous other Colorado players, and Kigali city planners to refine that vision.

"They are trying to make Rwanda the most sustainable, high-tech, wired country in Africa, a little bit like what Singapore became," to Southeast Asia, Worthington says. "They are trying to re-invent the whole country."

It is a tall order, he says, "but it is possible."

Already, the Kigali region alone is home to nearly 1 million people, the vast majority of whom live in sprawling slums comprised of mud huts with tin roofs, no electricity or water, and no access to proper sewage. That population is expected to triple by 2020. Oz's aim: to help Kigali handle that growth without exacerbating its current problems; to preserve one of the nation's few commodities — its natural beauty; and to provide a road map for Rwanda as it strives to become a technological hub.

Again, the Rwandan government is not asking for fish, but rather, to be taught how to catch its own.

"We are really very conscious that everything we do is about trying to transfer the skills and the capacity for building to them,"

> says Donna Rubinoff, planning project manager for Oz. "We don't just come in and hand them a report and leave."

The Oz team spent years rumbling through rutted Rwandan roads in fourwheel-drives, walking the hillsides, holding neighborhood workshops, exchanging transcontinental e-mails with Kigali planners and poring over not always reliable maps in search of potential directions for smart growth. In spring 2006, Oz unveiled a slick color PowerPoint presentation to government offi-

cials, painting a view of a new "city in the country," with long fingers of green space, and compact villages and towns in the surrounding region, absorbing growth without promoting sprawl.

In the poor areas, rainwater collection systems grace every rooftop, providing water and keeping erosion in check. Bio-gas digesters behind communal latrines miraculously transform human waste into fuel for cooking. Every light is an eco-friendly compact fluorescent. And homes are built co-housing style – with community areas in the center for gardening, child care and small businesses.

On screen, in the Oz office in Boulder in January, the plan looked a bit like a pipe dream to me. But in February in Kigali, I saw that some of the design principles were already being implemented.

Workers at a 336-home affordable housing complex called Batsinda — fashioned after a model home created by Colorado-based Engineers Without Borders and pictured in the Oz master plan — were just putting on the finishing touches for the families to move in.

"There is already a real shortage of lowcost housing in Kigali that is planned and de-

"BECAUSE THIS IS A VIRGIN ECONOMY, THERE IS SO MUCH TO BE DONE AND YOU ALMOST IMMEDIATELY HAVE AN IMPACT."

Rwanda-born software engineer Antoine Bigirimana

cent," said Teta Isibo, a planner in the Kigali City Planning Department, as she walked me through this environmentally progressive haven. "This all fits in to the strategy of the master plan."

WIN-WIN TOURISM

When Gaylord Layton got the call from John Dick in 2004, asking if he might be interested in investing in Rwanda somehow, he couldn't have been more skeptical.

"I thought Rwanda was a povertystricken, dangerous place where genocide had taken place," says Layton, a lifelong world traveler and president of Tayside Associates LLC. "I didn't even think it was safe to go there."

But after meeting with Kagame in Denver and paying a visit to the so-called Land of a Thousand Hills, Layton was smitten: verdant hills, the cool blue waters of Lake Kivu, the towering mystical-looking volcanoes of the Virunga chain, and — of course — the chance to spend the day in the bamboo forest tracking the rare mountain gorillas, which number about 700 worldwide. While many envisioned a land of bloodshed, Rwanda, he discovered, was actually a hidden gem of a tourist destination.



"I came out of that whole thing and said to myself, 'What this place is missing is a great safari lodge," Layton says.

Not anymore. In January, the doors opened on the Silverback Sabyinyo Lodge, a plush lodge with eight adobe-style bungalows seated on a lush hillside in the shadow of the jagged 3,634-meter Sabyinyo volcano. Each bungalow has its own fireplace, rose-colored carved-stone bathtub, and private veranda looking out over the mist-covered volcanoes. The three hearty meals served daily in the glorious main lodge are a welcome departure from the bland fare so typical of the country.

It's not cheap: Rooms range from \$371 to \$644 per person, plus a \$50 per night perperson community fee. But it is already being lauded by some expatriates as the best hotel in the country. It also represents a unique investment strategy that fuels the local economy and protects the gorillas.

JAMES KIMONYO, U.S. AMBASSADOR FROM RWANDA TO THE UNITED STATES, WILL BE A FEATURED PANELIST AT THE 60TH ANNUAL CONFERENCE ON WORLD AFFAIRS APRIL 7-11 AT THE UNIVERSITY OF COLORADO. FOR A SCHEDULE OF PANELS HE WILL PARTICIPATE IN, LOG ON TO WWW.COLORADO.EDU/CWA



The lodge was built via a unique three-way partnership between Layton, Governor's Camp (a Kenyan safari company), and the African Wildlife Foundation. The three entities pitched in on materials and labor, employing up to 650 locals per day at \$1 to \$2 per day for many months to build it. Then, it handed ownership over to a community trust called SACOLA, which represents roughly 6,000 low-income Rwandese living in nearby Kinigi.

SACOLA earns money by leasing the lodge back to its creators and also gets every penny of the \$50 per-person, per-night "bed-night fee" — which amounts to roughly \$150,000 annually for community water projects, health and education.

Layton, who intends to get his principal investment back but hand over his share and any equity to the community trust in five years, hopes to set an example for other investors.

"I was motivated to do the deal for philanthropic reasons, but I also wanted to make sure that we put together a model or template so that entrepreneurs could say, This is a good investment,' and maybe they could repeat the experiment," Layton says. "We have these micro-loans for these very small businesses, but there is also a need for some kind of a macro/micro loan — loans to start off larger businesses in Rwanda."

Fogler agrees. "There is a small but very dedicated group of people who are very interested in investing in Africa. The problem is the lack of investment vehicles," he says. "If you say, 'I have \$30,000 to invest or \$1 million or \$2 million to invest,' how do you do it?"

In 2004, Fogler set out to answer that question and established Thousand Hills Venture Fund. So far, the fund — made up of roughly 25 investors — has pumped \$600,000 into Rwandan business, including housing projects, Internet cafes and other technology-driven chains, and has the capacity to invest \$2 million. Another investment vehicle he's involved with has the capacity to invest much more, he savs. And, it is hoped, reap an ample profit.

Initially, Fogler too says he was driven to

investigate Rwanda by a twinge of "postgenocide guilt." The Western world did nothing to help during the genocide, so we must do something now, the thinking goes.

But now, having given up his job as an attorney and made at least 20 trips to this exotic foreign land, Fogler is beginning to realize that his efforts, and those of others like him, may be about much more than guilt, or money.

"Rwanda is not just about Rwanda," Fogler says. "It is a small, poor country with almost everything going against it. A lot of people look at Rwanda and say, 'If Rwanda can become a leading example in Africa after all that it has been through, then to some extent, there is hope for every other country.""

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