North Central WASHINGTON

Page A2

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Lighting up lives

WVC coordinator plans solar electricity to help those in Rwandan homeland

By Mike Irwin
World staff writer

EAST WENATCHEE — When the sun set on Claver Hategekimana's childhood home in Rwanda, he and his family devised clever ways to light their lives.

In an African neighborhood where electrified homes were rare, Hategekimana's parents and five siblings beat the darkness by playing evening games under city street lamps and completing homework assignments by the glow of candles, wood fires and kerosene lanterns.

Now, at age 40, Hategekimana has devised one more clever way to light Africa's rural homes — a cheap array of solar-powered lights that, he believes, could illuminate African life by extending the day to allow more education, money-making tasks and family social time.

Light 4 Village, Hategekimana's project to deliver low-cost power to rural homes in undeveloped countries, uses the most compact and efficient solar technology available to run bright, efficient LED lamps. As a side benefit, the same solar kit can charge cellphones and run a shortwave radio.

"This isn't rocket science," said Hategekimana, coordinator of Wenatchee Valley College's Teaching and Learning Center. "It's easy, simple, cheap, lightweight and very powerful. I like to say that it'll light homes and brighten lives."

Like a bulb lighting up, Hategekimana's idea for the solar light kit flicked to life when he came to the United States in 1997 and saw highway signs powered by solar panels. A student at Iowa State University, he realized he could use the panels to light up his dorm room and immediately propped one in the window to do just that.

"I didn't need electricity for lights," he said. "It was a freeing thought for me. I knew that somehow this technology could be used to help my family and village — if it was cheap enough."

Light 4 Village

A project to bring solar electricity to rural villages in Africa and other undeveloped countries.

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Skip ahead a decade. Hategekimana has completed his dissertation, earned a couple of degrees and gotten a job at WVC. Not much progress was made, however, on providing lights for rural Rwanda.

But in those 10 years, solar panel, battery and LED prices had dropped dramatically and efficiency had increased. Amazingly, three lights running off a fully-charged battery could last up to eight hours.

Hillary Kosen, Supporter of Light 4 Village

Enlisting students in WVC's industrial electronics program to test prototype systems, Hategekimana moved toward matching the right solar panel with the right lights, battery and connecting box.

"It finally all came together in a good, if not perfect, package," he said. "We continue to fine-tune the components to gain the most electricity and light for the lowest cost."

In the last year, Hategekimana has sold and shipped several of the solar lighting kits to his home village — to his parents, siblings and a few friends — and has received testimonies from them on how it's changed their lives.

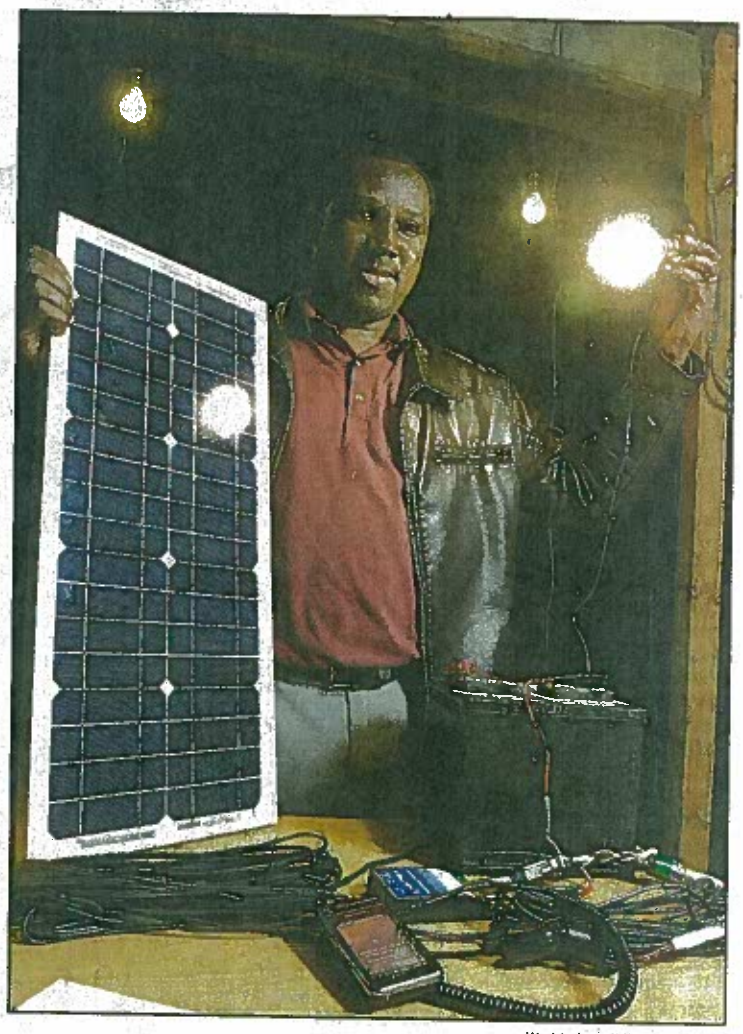
Musabyemariya, a friend in Rwanda, wrote, "One of my sisters reminded me of the moonlight, firewood smoke, kerosene lamps and sore eyes that were once a part of our daily lives. But solar electricity has changed that. We no longer worry that darkness will end evening schoolwork. Most importantly, no more sore eyes and headaches from the fumes."

Another friend, Hillary Kosen, a Kenyan Maasai who runs Kosen Safaris in East Wenatchee, has begun matching up his wealthy clients with village households who would benefit from installation of a solar light kit.

"A willing (safari) guest meets a family and often wishes to give something back," said Kosen. "Light for education, light for productive work, light for a better life — what better gift for an African family?"

Today, Hategekimana is searching for grants or sponsors to fund shipment of a larger number of the light kits to Rwanda and other underdeveloped countries.

"We believe that low-cost electricity can have big effects on individual families and villages," he said. "We just need to get the equipment there, connected in the home and the lights turned on."



World photo/Mike Bonnicksen

Claver Hategekimana with a solar-powered light kit that he devised. It contains a solar panel, three LEDs, three 40-foot cords, a connection box, a car battery, a few clips and connectors and instructions.