

ON THE CONSERVATION FRONTLINE IN UGANDA

BY SUZANNE YORK

Some people hike for six hours or more over arduous terrain to see mountain gorillas in the wild, but I got lucky on my first gorilla trek in Bwindi Impenetrable National Park, aka “Bwindi,” in southwestern Uganda. Within 30 minutes of setting out, our party encountered the Rushegura Group. Perhaps it was the ease of finding the gorillas that allowed me to relax into being near them, taking their photos and watching them eat and move around, especially the mothers with babies on their backs. My mellow moment, though, was shattered abruptly when a male silverback, the group’s leader, charged us. All thoughts of perfect photos instantly evaporated as we practically fell over one another in our haste to get out of his way. It turned out to be just a fake charge, but this male moved so quickly, given his large size, that the mock attack left me shaken. I ended the trek with a whole new level of admiration for the rangers and conservationists who work to protect this iconic endangered species.

I had traveled to Uganda not only to see gorillas but also to meet Gladys Kalema-Zikusoka, DVM, a woman I’ve long admired for her work providing healthcare to rural villagers and for protecting the country’s biodiversity, especially mountain gorillas. As director of Transition Earth, a non-profit I founded to increase awareness of the effects of population growth on the environment, I was interested in seeing how her organization, Conservation Through Public Health (CTPH), uses the Population, Health and Environment (PHE) economic development model to strengthen community resilience to environmental problems.

PHE is an integrated approach to development that recognizes that population growth is one of the major threats to local ecosystems, that human health is inextricably linked to nature, and that it is more effective to work across the human health and environment sectors together than to pursue actions in isolation. CTPH is one of a small number of organizations in Uganda that incorporates the PHE model in their work.



SEVERAL GROUPS OF BWINDI GORILLAS, INCLUDING THE RUSHEGURU, HAVE BEEN “HABITUATED” BY RESEARCHERS SO THEY CAN BE MONITORED AND GIVEN VETERINARY CARE.

PHOTOGRAPHS BY JO-ANNE MCARTHUR



LEFT: DR. GLADYS WITH A PARK RANGER PATROLLING BWINDI IMPENETRABLE NATIONAL PARK. RIGHT: THE GORILLA CONSERVATION COFFEE PLANTATION, A CTPH SOCIAL ENTERPRISE.

My first impression upon seeing Uganda's rolling green hills and mountains was that it was paradise, but a closer look revealed a dark reality facing the "pearl of Africa," as the country is often called. Casual conversations with rural villagers, city dwellers and park rangers now often include a lament about the changing climate: The rains don't come when they are supposed to, and when it finally arrives, it's a deluge, followed by flooding and landslides. Deforestation is a major problem, too. I have driven through many parts of the country, where I would frequently see bags of charcoal, which is used for cooking and heating, for sale on the side of the road, and worse, trucks packed full of charcoal headed for cities.

Uganda's population exceeds 45 million people; with a fertility rate of 5.3 children per woman, the population is projected to reach 100 million by 2050. Nearly half the population is under the age of 15. Everywhere I go I see how youthful Uganda is. It's part of what makes it such a vibrant nation, but the demands of Uganda's rapidly growing population are putting intense pressure on nature.

Uganda is one of the most biodiverse countries on the planet and is home to 11% of the world's known species of birds and 8% of mammals; 50% of all birds, 40% of all mammals, and 19% of all amphibians on the African continent, are found here. More than half of the remaining 1,000 wild mountain gorillas live in Uganda's forests. Unfortunately, this rich biodiversity is in peril. The Uganda Biodiversity Fund states, "The quest for economic development, along with population growth, places significant pressures on the country's biodiversity and ecosystems."

Along with deforestation and the subsequent soil erosion, overgrazing by livestock and habitat loss due to human encroachment are other major environmental threats. The World Wildlife Fund reported that Uganda loses about 15,000 acres of forest every 30 days. As the population continues to grow, the pressure to develop more land for agriculture has increased dramatically. And the recent discovery of oil and gas in western Uganda puts several parks and biodiversity hotspots at risk of serious environmental degradation.

In 1996 while working as the first Wildlife Veterinary Officer for Uganda National Parks (now the Uganda Wildlife Authority), Kalema-Zikusoka, known locally as Dr. Gladys, saw firsthand how the transmission of diseases between humans and wildlife threatened the success of mountain gorilla conservation programs.

She led a team investigating an outbreak of scabies among gorillas living in Bwindi where a baby gorilla had died from the disease. The scabies outbreak, Dr. Gladys told me, "...was traced to people living around the park with inadequate health care...gorillas came into contact with dirty clothing left on scarecrows when they left the park to forage on the local community's banana plants. This made me realize that we cannot protect the gorillas without improving the health of the people who they share their fragile habitat with. That led us to set up [in 2003] Conservation Through Public Health, together with my husband, Lawrence Zikusoka, and veterinary technician, Stephen Rubanga."

Dr. Gladys explained the science behind their mission to promote gorilla conservation by enabling people, wildlife and

livestock to coexist through improving health care in and around Africa's protected areas: "Diseases can be transmitted between humans and animals through direct and close contact, via fecal, oral, and coughing, as well as eating the meat of an animal that has died of a zoonotic disease like anthrax or Ebola. Though diseases that are transmitted from animals to humans are the most studied, we have discovered that humans can also spread diseases to great apes, especially if they are naive to the pathogens yet are closely related genetically—humans share over 98 percent of our DNA with gorillas and chimpanzees."

Covering an area of about 128 square miles, Bwindi is surrounded by poor communities with high population growth. Historically, villagers have had limited access to basic health and sanitation services. "I have seen how having large, unmanageable families makes marginalized communities around protected areas even more vulnerable to the effects of poverty and inadequate health care," Dr. Gladys said. "This in turn contributes to environmental degradation, loss of critical habitat for endangered species and increases the risk of disease transmission from people to closely-related wild animals, including gorillas."

Via a network of community health volunteers called Village Health and Conservation Teams that go door to door, CTPH promotes better health practices among the population, including family planning, along with the prevention and control of TB, HIV/AIDS and dysentery. This face-to-face interaction has helped change peoples' attitudes toward their environment by teaching them why it's important to protect their health, along with that of the wildlife.

With a population density around Bwindi of 200-300 people per square mile, there are problems with human-wildlife conflict. When I accompanied Dr. Gladys on another trek to see gorillas in Bwindi, we witnessed a mountain gorilla taking

bananas from a farm adjacent to the park. To decrease the chances of this kind of thing happening and to keep farmers' frustration with gorillas low, CTPH implemented human and gorilla conflict resolution teams, or HUGOs. The HUGOs are made up of community volunteers who, by beating drums, encourage gorillas to stay away from farmers' crops and go back to the safety of Bwindi. They are



also trained to help monitor the health of gorillas by collecting gorilla scat for disease screening by experts.

For people living next to Bwindi, there have been few livelihood options, historically, so they turn to cutting down forests for farming and firewood. Wild animals are hunted for food, some are poached for profit. So in 2015, CTPH launched the Bwindi Coffee Growers Cooperative, an enterprise that supports the communities around Bwindi. The goal of this program is to provide a viable economic alternative for the local farmers by training them to grow premium coffee, sold as Gorilla Conservation Coffee, using sustainable agriculture techniques. Some of the farmers are former poachers who learned they no longer had to rely on the forest to provide for their families.

In talking about creating economic opportunities in the Bwindi region, Dr. Gladys brought our discussion back to health, "Poor health outcomes for people results in sickness and greater dependence on the park to meet their needs for medicinal plants, food and firewood, as they are less able to engage in meaningful employment. Poor health in wildlife

can result in fatal disease outbreaks that ultimately results in a loss of wild animals and reduced tourism, that negatively affects economic development for Uganda and local communities." Gorilla ecotourism is the most popular tourist activity in East Africa, Dr. Gladys said, "Revenue from gorilla trekking is shared with the local communities, thereby helping to lift them out of poverty. It also results in an improvement in their attitudes to conservation and the park and enables them to coexist more peacefully with the endangered mountain gorillas and other wildlife."

I've returned to Uganda several times since my initial trip, meeting with women and men who run organizations that support community empowerment by linking conservation with family planning, sustainable

livelihoods, and other forms of development. I've visited villages that are overcoming poverty through investments in maternal and child healthcare, family planning and education, and the creation of economic opportunities, such as coffee cooperatives, beekeeping, and women-run village savings and loan associations. And I've seen local NGOs building rainwater harvesting tanks and eco-toilets and installing energy efficient cookstoves. Uganda's challenges are enormous, yet, at the local level, I've witnessed how peoples' lives are changing for the better, and nature being protected. In describing her approach to conservation to me, Dr. Gladys said, "When we address health care and link it to wildlife conservation, peoples' conservation attitudes and health and conservation practices improve." Her example gives me hope for Uganda's future and for the future of conservation. **WH**

Help support Conservation Through Public Health and Bwindi's mountain gorillas by visiting the Gorilla Health and Community Conservation Centre in Uganda and making a trek to see the gorillas or going on a coffee safari; find out more at ctph.org.