

Conservation Through Public Health

**Human, Animal and Ecosystem Health Discussion at the
Woodrow Wilson Center**

21st May 2008

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Conservation Through Public Health**

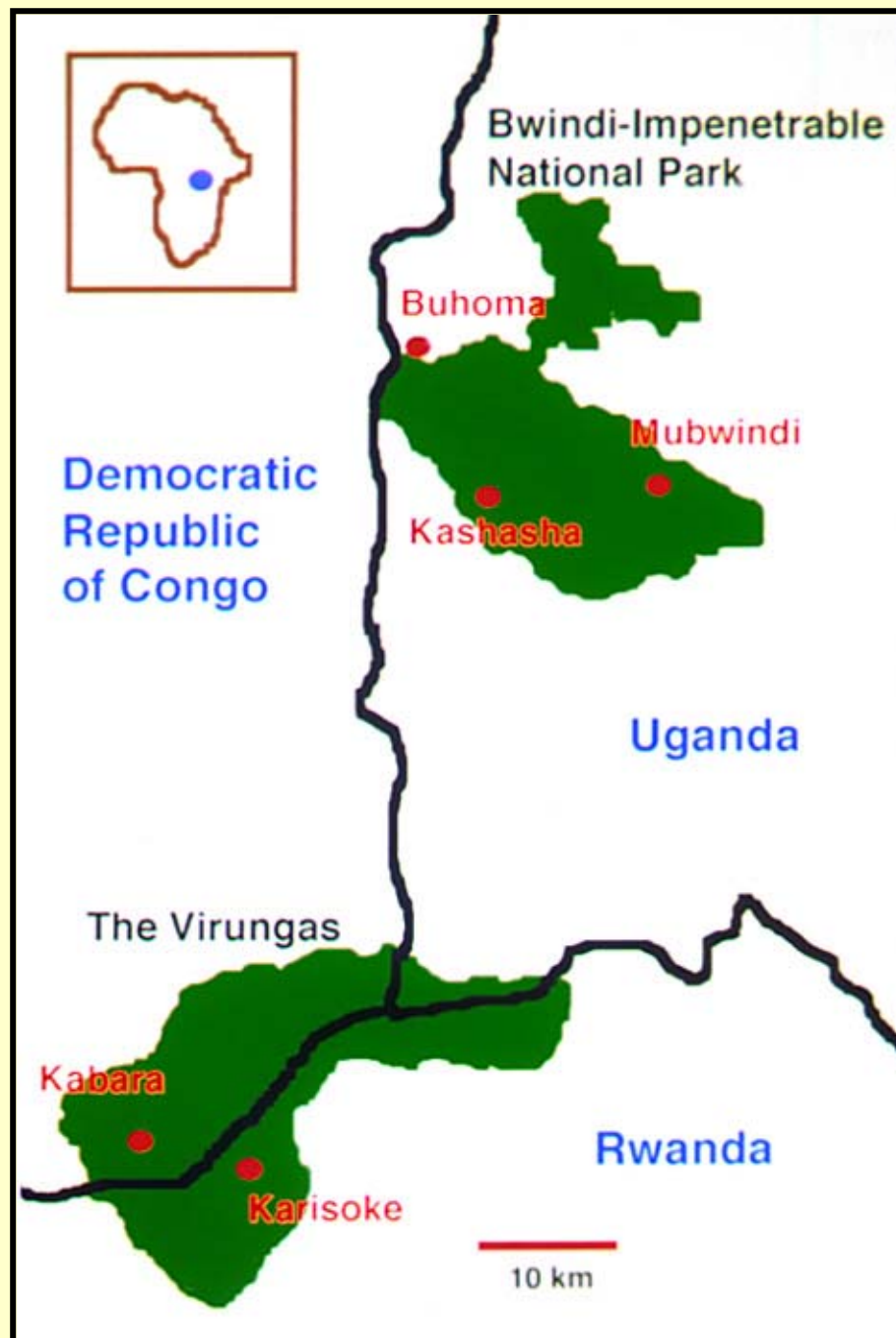


Presentation Outline

- Why start CTPH?
 - How it fits in with AHEAD
 - Overview of three integrated programs
 - Challenges
 - Future plans
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Why Start CTPH?

- Effective protected area management is undermined by zoonotic diseases
 - Poorest people in African countries
 - Marginalized target group in these remote areas
 - Problem gorillas and other wildlife
 - Very limited access to health care and information on human and animal diseases
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Bwindi Mountain gorillas lost hair and developed white scaly skin



Infant mountain gorilla died of scabies originating from the Bwindi local community



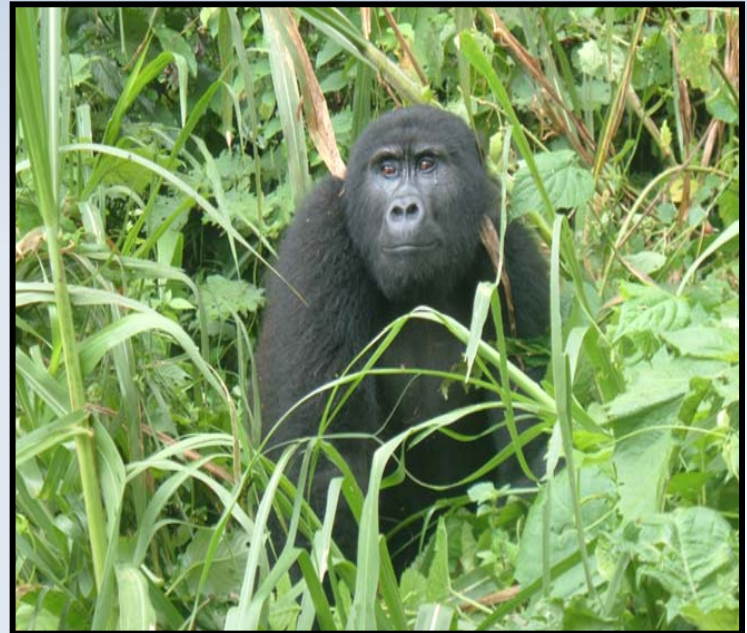
Remote huts of local community adjacent to Bwindi Impenetrable Forest



Family residence at the border of Bwindi Impenetrable National Park



Human/Gorilla Conflict - Disease



Community Participatory Rural Appraisal (PRA) Workshops with Bwindi Local Community



OKWERINDA



KUTATURIZA

ENDWARA

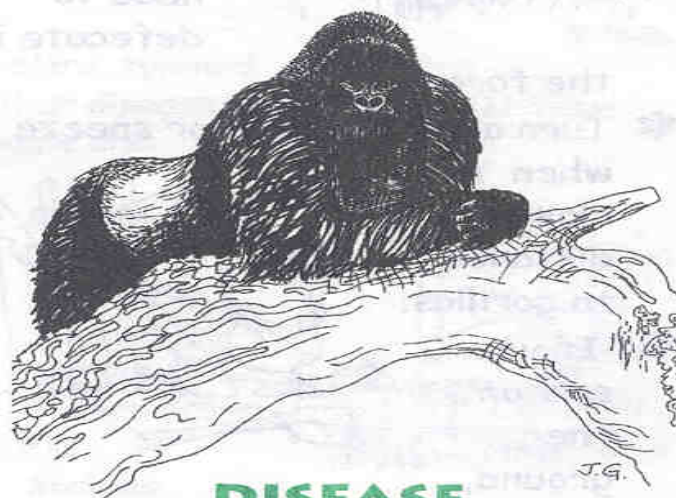
ENGAGI NARI

ZO KU TUTURIZA

PREVENTION

AND

CONTROL OF



DISEASE

TRANSMISSION

BETWEEN HUMANS

AND GORILLAS

Health Education

→ Tuberculosis

→ Scabies

→ Measles

→ Polio

→ Ebola

→ Intestinal parasites

→ Ringworm

→ Trachoma

→ Herpes

→ Lice

→ Typhoid

→ Flu

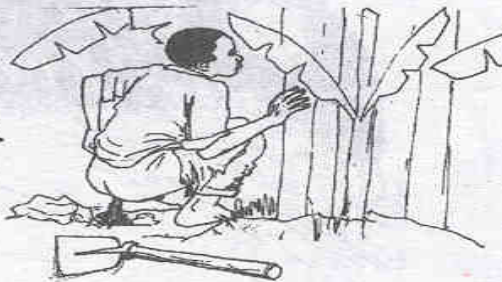
Non medical



- * Maintain the 5 metre distance.
- * Dig a hole of 30 centimetres deep if you need to defecate in

the forest.

- * Turn away to cough or sneeze when in close distance to gorillas.



- * If you spit on the ground, cover it up with mud.



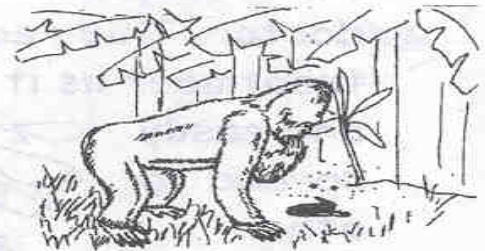
People can get diseases from gorillas and also gorillas can easily get diseases from people.

If you defecate on the ground, Gorillas can taste it, get sick and spread it to all the other Gorillas in the group. eg.

Cholera, typhoid, worms etc.

Other diseases gorillas can get from people are:

- ▶ Measles
- ▶ Ringworm
- ▶ Trachoma
- ▶ Typhoid
- ▶ Worms
- ▶ Tuberculosis
- ▶ Flu
- ▶ Scabies
- ▶ Polio
- ▶ Lice
- ▶ Herpes virus



Personal Hygiene



- * Dispose of rubbish properly, do not leave banana peels in the forest.
- * Have enough pit latrines.
- * Cover pit latrines.
- * Dig pit latrines deep enough.

- * Do not leave cigarette butts lying on the ground, you should bury or take them with you.



- * Clean houses regularly.
- * Wash clothes regularly and thoroughly.



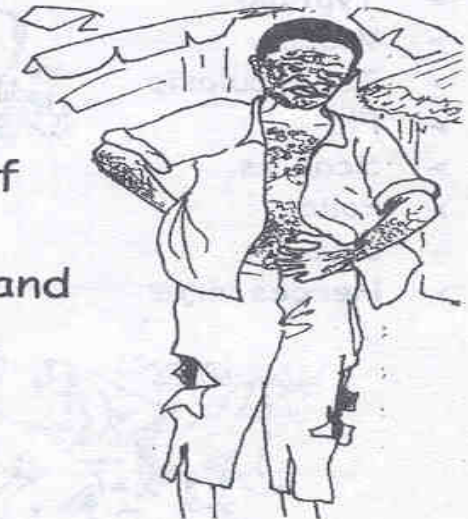
- * Do not leave dirty clothing in your plantation.

Medical



- * If you are not feeling well, seek medical treatment.

- * If you have a disease that is not making you feel very sick, but is causing you discomfort like scratching more than usual for example Scabies, go to the doctor. This requires treatment as it can get worse and easily spread to other members of the household and to gorillas.



Health Education Local Community Recommendations

Medical

- Bring health and diagnostic services closer

Non-medical

- Strengthen human/gorilla conflict team, compensation for crop damage

Personal Hygiene

- Dig proper pit latrines, cover rubbish heaps, more health education
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Impact of Gorilla Ecotourism



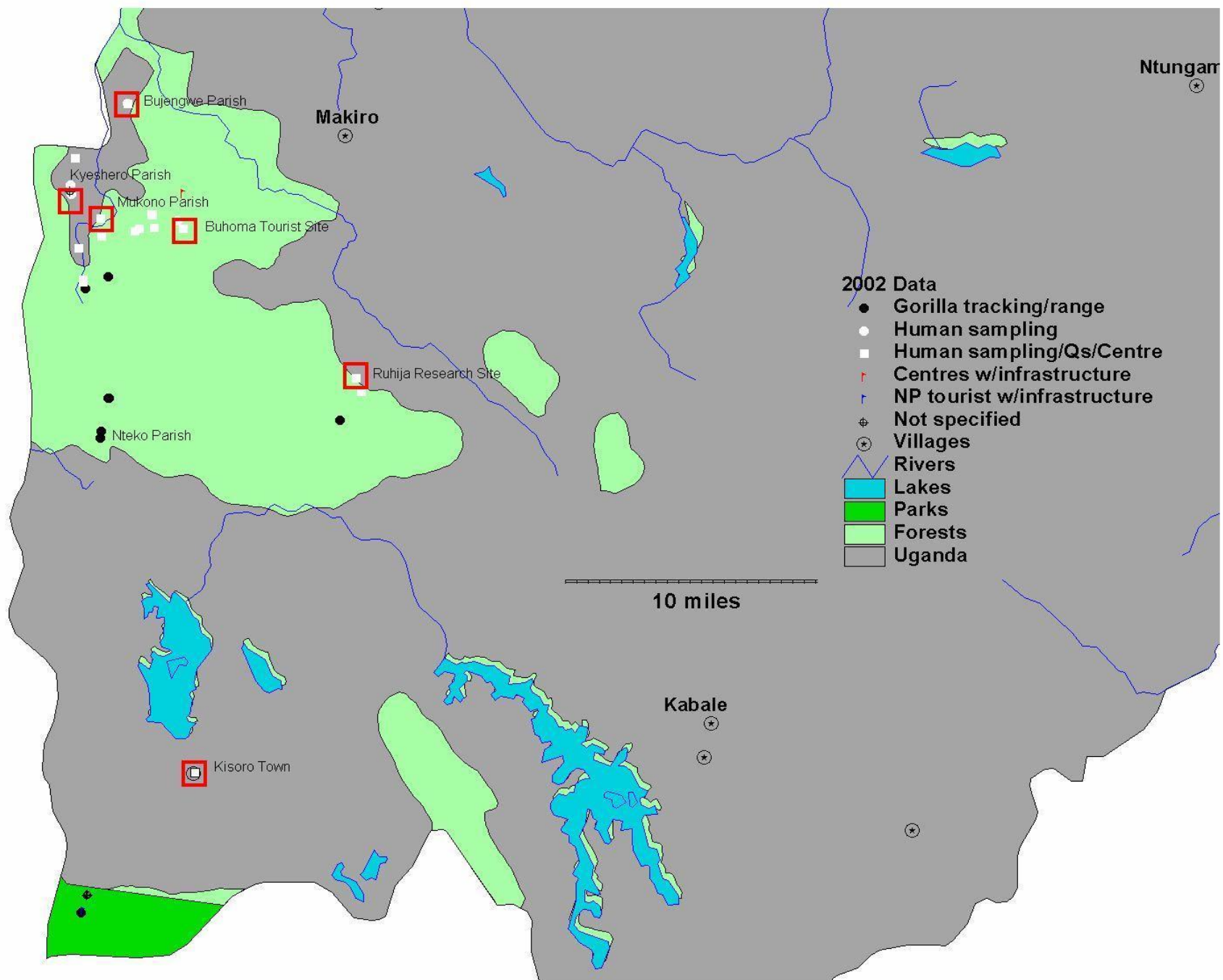


Health Education Lessons Learned

- Parishes that benefited from gorilla tourism were most receptive
 - Communities were more receptive to a multidisciplinary team
 - Problem animals undermined the benefits of tourism revenue sharing funds for community development
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TB research – 2001/2002

- TB surveys in Bwindi Impenetrable and Queen Elizabeth National Parks
 - AWF Charlotte Fellowship Conservation Award
 - North Carolina State University and Zoo
 - 25% chronic coughers had positive acid fast sputum tests
 - 5% of BINP park staff positive acid fast tests
 - Two people died during research because of not completing treatment (defaulters)
-



Conservation Through Public Health

- Grassroots not-for-profit organization
 - Founded by Ugandans in December 2002
 - Received 501(C) 3 non-profit status in USA in July 2003
 - Received NGO status in Uganda in December 2003
 - Patron – Queen of Buganda Kingdom
 - 15 staff, 9 Board of Directors, 16 Int. Advisory Board Members
 - Volunteers (Uganda, UK, USA, Bayer Pharmaceuticals, American Jewish World Service, Cornell University, Colgate University, International Cyber Volunteers)
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Conservation Through Public Health

- **Integrates wildlife conservation and human public health**, which is interdependent in and around protected areas in Africa
 - More cost **effectively prevents and controls** disease transmission **between people, wildlife and livestock**
 - **Disease affects** conservation, public health, ecotourism, livelihoods, agriculture, culture
 - **AHEAD Collaborator** (Animal Health for the Environment and Development)
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Conservation Through Public Health

→ **Mission:** To promote conservation and public health by improving primary health care to people and animals in and around protected areas in Africa

Conservation Through Public Health

- **Vision:** To prevent and control disease transmission where people, wildlife and their animals meet while cultivating a winning attitude to conservation and public health in local communities
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Strategy - Three Integrated Programs

- **Wildlife Health Monitoring**
 - **Human Public Health**
 - **Information, Education and Communication**
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Wildlife Health Monitoring

- **Wildlife Health Monitoring** – data from gorilla and livestock fecal sample analysis at *Field Clinic for Mountain Gorillas and other Animals* is shared with medical and wildlife partners as an early warning system for disease outbreaks
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**FIELD CLINIC FOR MOUNTAIN GORILLAS
AND OTHER ANIMALS**



TELECENTRE

INTERNET HERE!
200 METRES
←

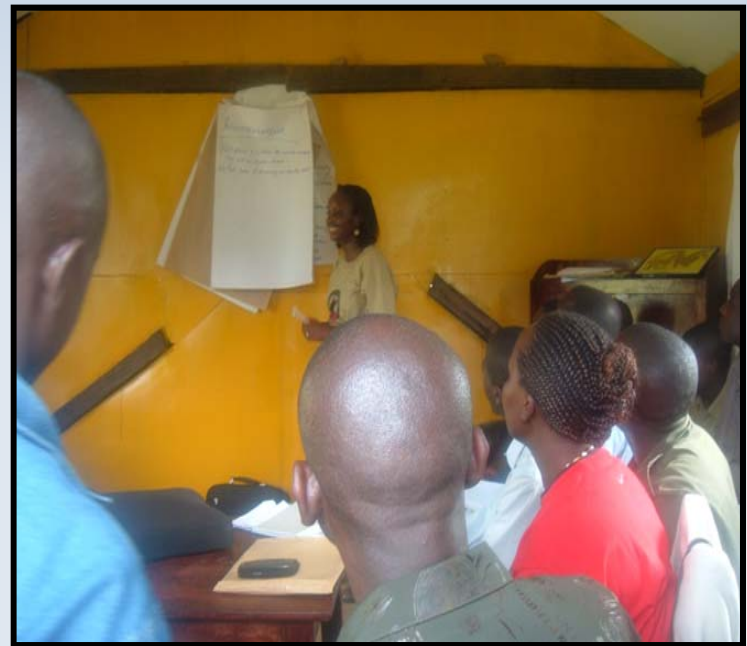
**MUKONO
COURTSCHOOL**
(ANGELICAN)
POBOTIJI-KANUNCU

**MUKONO CDU
PARISH**
KINKIIZI DIOCESE
ANGELICAN — 1000M

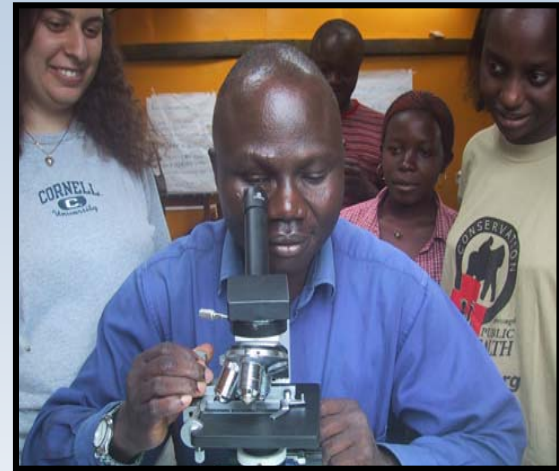
Wildlife Health Monitoring

- Park staff and HUGO (Human/Gorilla Conflict team members) collect weekly fecal samples from each habituated gorilla group
 - Samples also collected from unhabituated groups during recent gorilla census - 2006
 - Wildlife Conservation Society Field Vet Program (2005)
 - US Fish and Wildlife Service (2005 – 2006)
 - MacArthur Foundation (2006-2008)
-

Over 170 park staff and 90 HUGO members trained in gorilla health monitoring



Over 3000 fecal samples collected by rangers and HUGO, and examined at CTPH Field Clinic for Gorillas and other animals



Wildlife health results - Bwindi

- Gorillas at risk from diseases such as Amebic dysentery, which is prevalent in surrounding communities
 - Gorillas at risk from diseased goats grazing at the park periphery
 - Nkuringo gorilla group that spends most time outside the park in people's gardens showing trends of highest parasite burden and range of parasites
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US Ambassador, Steven Browning and wife, Susan visit CTPH Gorilla Clinic - 2006



Human Public Health

- Grassroots Community Education Campaigns on good hygiene, zoonoses, and links to gorilla health, ecotourism and livelihoods
 - Strengthening Community Based Health Care in villages around Bwindi Impenetrable National Park, a UNESCO World Heritage Site – linking communities with health centres
-

Community Education Campaigns

- Focusing on good hygiene and health practices highlighting the links between conservation, public health, ecotourism and livelihoods, including TB, CBDOTS and links to gorilla health
- Community drama workshops
- Informative brochures, signposts and DVDs
- Radio programmes
- International Gorilla Conservation Programme - CTPH coordinates Public Health and Conservation Technical Support Unit (Local governments, Uganda Wildlife Authority and NGOs) – 2005
- Development Cooperation Ireland (2005),
- USAID Prime West/African Wildlife Foundation (2006 – 2008)

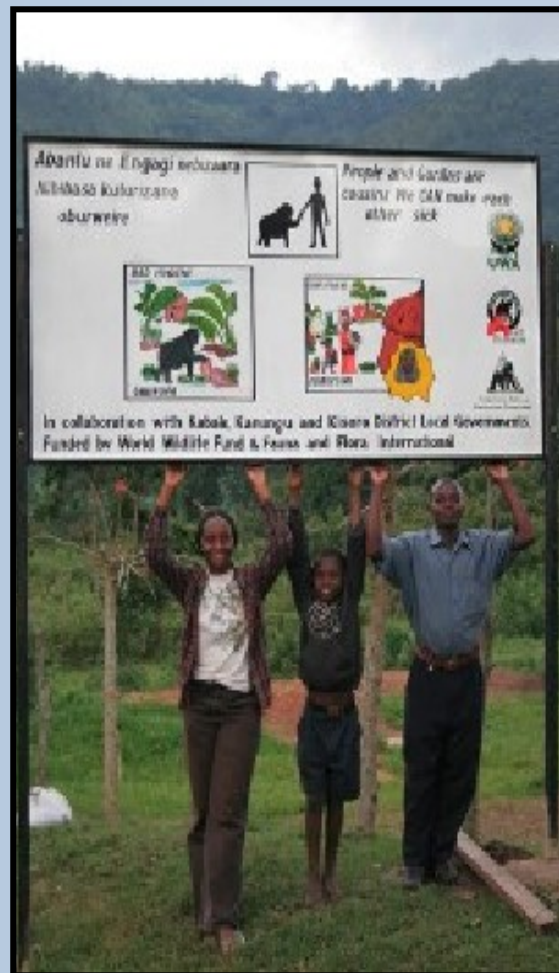
Community Drama Workshops

- Meetings with Local leaders to get “buy in”
 - Bwindi Conservation Actors and Rutendere Health Promoters (Women’s group) perform plays based on the 2000 health education brochures
 - Very cost effective educational tool for the local communities as very entertaining
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Reached over 7000 people through local drama groups



Community outreach through Health Message Signposts, 5 erected so far



Community Based Direct Observation of TB Treatments Short Course Therapy (CBDOTS)

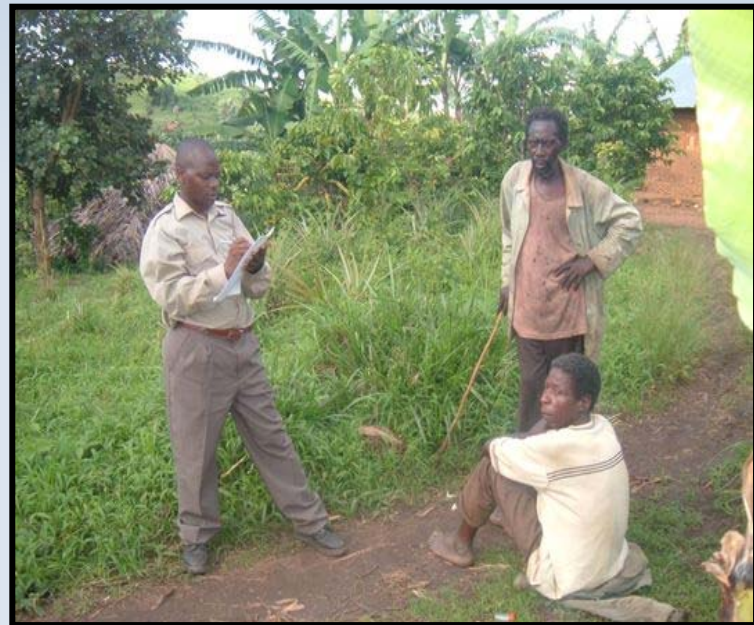
- CTPH has MOU with Kanungu District Local Government/Ministry of Health
 - Meetings with local leaders & traditional healers
 - Identifying TB suspect patients and getting their samples to Kayonza Govt Health Centre and where possible patients to Bwindi Community Health Centre, NGO Missionary Hospital
 - Following up on these patients every two weeks
 - DCI (2005), USAID/AWF (2006- 2008)
-

Training workshops with Traditional Healers

- Getting traditional healers to admit they cannot treat TB and HIV
- To refer TB suspect patients
- To become community volunteers
- To appreciate linkages between health and conservation
- THETA – Traditional and Modern Health Practitioners Together against HIV



**52 people enrolled in CBDOTS programme,
33 completed 8 months treatment, 10 on treatment, 4
defaulted and 5 died**



Population Health and Environment Initiative – 2007

- Community focussed family planning program in two parishes around Bwindi
 - Average live births is 10 “half our children go to school while the other half are for chasing wildlife away from the garden”
 - USAID PHE Initiative – CTPH is first one in Uganda
 - 4 Community Reproductive Health Workers (CRHWS)
 - 22 Couple Peer Educators (CPES)
 - Inform people about the benefits and methods of modern family planning and link it to sustainable environments
-

Results in first year of PHE

- Great response, in first 9 months
 - Over 1500 homes visited, 500 of which are homes bordering the park who see gorillas – **potential improvement on ICD outcomes**
 - Over 100 new Family Planning acceptors
 - Community health volunteers want to form a CBO, for sustainability
 - Success has led to further funding from USAID
-

Quarterly meetings with CRHWS and CPES



Integrating Family Planning with Scabies, HIV and TB

- Meeting with 54 local leaders in Mukono and Bujengwe Parishes
- 40 community health volunteers being trained to give health talks on scabies and HIV during TB CBDOTS and community based family planning home visits
- **Target: at least 25% of homes visited should border the park – i.e. people who see gorillas often, so far 30% (500/1500)**
- **Scabies focus is on good hygiene practices**
- HIV focus is to educate people on the importance of HIV and encourage them to go for testing at the health centre, especially TB suspects
- CRHWS and CPES have referred over 480 people for TB testing

Challenges of Public Health Programs

- Convincing health partners that community based health care can compliment their efforts by linking communities to their services through community health volunteers.
 - Limited resources to continue the programs in one parish (Kyeshero) that does not border the Bwindi National Park once Development Cooperation Ireland funding ended in 2005
 - Sometimes limited resources at supporting health centres
 - Alcoholism prevents people adhering to daily TB medication. However the CBDOTS programme has achieved 79% treatment success, CNR.
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Further education

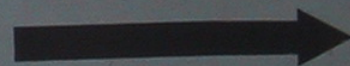
- Radio Programs, hosting key human health and wildlife officials, CTPH and expert client testimonials (District Public Health Nurse, District TB and Leprosy Supervisor, BMCA Community Conservation Ranger, expert client testimonials (family planning and TB – CBDOTS)
 - Community Websites/Portals targeting the youth, in english and the local languages with specific interrelated health and conservation information.
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MUKONO COU
(ANGLICAN) P/S
POBOX 141-KANUNGU

INTERNET HERE!

200 METRES



Information, Education and Communication

CTPH Telecentre enables community empowerment through computer courses and access to email and wireless internet, public health research and development of educational materials on conservation and public health linkages for outreach

Community websites

Roving Telecentre



HIGH SPEED
INTERNET
128 Kbps!



CTPH TELECENTRE
BWINDI IMPENETRABLE NATIONAL PARK



A UNIDO Model on Rural Energy for Productive Use



MAKERERE UNIVERSITY



DEPARTMENT OF
WOMEN AND
GENDER STUDIES



**DATA
Fundi**



ULTRA REC
Energy Solutions For All

i-network
Knowledge. Strategic. Development. Experience.





**Gorilla
Journal**



CTPH Founder and Director of ICT for Development integrating a satellite communication solution at the CTPH Telecentre in Bwindi



CTPH Telecentre Activities since June 2005

- Over 150 community members have graduated in Computer Studies (40% women)
 - Over 50 Bwindi Orphans School children have watched educational DSTV channels (Discovery, National Geographic etc.)
 - Over 3000 members of the local community and 300 ecotourists have paid a fee-for-service to access email and wireless internet
-

CTPH Telecentre Activities



CTPH Telecentre Launch October 2005 by CTPH Patron, HRH Queen Sylvia of Buganda Kingdom



CTPH Telecentre International Recognition

- CNN World Report Focus on the Internet in Bwindi
 - BBC Go Digital Technology Program
 - Finalist in Environment category, Stockholm Challenge 2006
 - Finalist, WSIS Challenge Award for ICT projects in Africa 2006
 - Winner – World Summit Award e-inclusion award - Digital Inclusion for Bwindi communities
 - ➔ Reuters Stanford University Digital Vision Fellowship Award for **CTPH Founder and Director of ICT for Development**
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International and National Recognition

- **Ashoka Fellowship for CTPH Founder and CEO** – support for leading social entrepreneurs based on my vision of linking Uganda's wildlife management and rural public health programs to create common resources that benefit both people and animals
 - Ashoka Fellows, Gladys and Maria given award for outstanding contribution to **Tourism Development and empowerment of women in Uganda**
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Awards/Recognition/News

- **Seed Magazine - Revolutionary Minds** - "Saving Africa's wildlife by improving the health of humans", among 8 Revolutionary minds who through their approaches put science to effect global change.
 - **Skal Foundation Kampala Chapter** award of 1,000,000 shs (\$550) recognition for promoting conservation activities in Uganda
 - **San Diego Zoo Conservation Medal Award** in May 2008 with \$10,000 cash prize
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Strategy for Sustainability

- **Multidisciplinary teams** of grassroots practitioners in human health, wildlife and livestock health sectors get **together to find mutually beneficial solutions**
 - **Empower government workers and other grass roots practitioners** through **capacity building**
 - **Empower target communities** through **model change agents** who form institutional structures to **spearhead the approach in their community**
 - **Telecentre model** in protected areas with linkages to community enterprises and ecotourism
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Future Plans

- Make locally relevant educational videos with English/French/Swahilli/Lingara etc. subtitles from the drama shows – with International Conservation and Education Fund (INCEF)
 - Expand gorilla fecal sample tests to bacterial and protozoal diseases like amebic dysentery and other diseases common in Bwindi communities – Colgate University
 - Use databases and GIS to link wildlife health and public health – with UWA and Colgate University
 - **Scale up CTPH concept**
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Acknowledgements

- Woodrow Wilson Center
 - AHEAD
 - USAID
 - Uganda Wildlife Authority
 - Ministry of Health
 - Ministry of Agriculture, Animal Industry and Fisheries
 - Local Govt – Kanungu and Kasese
 - Uganda Communications Commission
 - MacArthur Foundation
 - Prime West
 - British High Commission
 - Uganda Telecom
 - US Fish and Wildlife Service
 - Wildlife Conservation Society
 - Mountain Gorilla Vet Project
 - American Jewish World Service
 - Makerere University
 - Colgate University
 - Cornell University
 - Ashoka
 - John Snow International
 - Family Health International
 - Development Cooperation Ireland
 - International Gorilla Conservation Programme
 - African Wildlife Foundation
 - IUCN
 - Mgahinga and Bwindi Conservation Trust
 - Gorilla Journal/BRD
 - Gorilla Haven
 - Bwindi Community Health Centre
 - Albertine Youth Resource Centre
 - Multichoice Uganda
 - Coca Cola
 - UNIDO
 - International Cyber Volunteers
 - North Carolina Zoo
 - Wyse Technology and Picopoint
 - Barclays
-

CTPH Staff



Thank You

**For more information on Conservation Through Public Health...
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