

Green ICTs 4 Socio-Economic Transformation in Rural Communities



James Kasigwa (Eng.)

Dynamic Coalition on Internet and Climate Change (DCICC)
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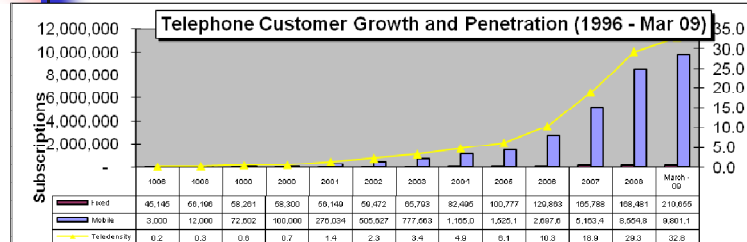
Uganda (Quick Overview)



- Land Locked in East Africa
- Total area 236, 040 km².
- Population: ~ 33 Million
- **Rural Population: 85.2%**, 2010 & projected to reach 85.3% by 2015 (2006 est)
- Age Structure (2009 est)
 - 0-14 years ~ 50%
 - 15-64 Years ~ 47.9%

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Uptake of Mobile/Wireless Communications in D.E



Mobile Applications and Solution

- Mobile Money
- Bill Payments (Utility Bills, e-Tax, etc)
- Banking Transactions

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Communications Infrastructure Rollout in Developing Economies

- Rapid/hasty roll out of Telecom Infrastructure
- Liberalized Market, (8 Telecom Players)
- Private Infrastructure (Mostly Unshared)
- Urban Centers & Towns targeted (90% covered)
- Powered by Diesel Generators (Main/Backup)

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Unsustainable Development

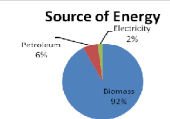
- Over 3000 BTS sites running on fossil generators (either as main or backup power source)
- 1200 liters of Diesel per month per BTS, making over (3.6 Million liters per month).
- The Generator Power rating 4 times the load (operating 10-25% load, 3KVA running a 32 KVA)
- E-Waste Management in DCs



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Lack of Infrastructure (ICT & Energy) in Rural Communities

- ICT (Digital Economy)**
 - Access & Connectivity (Backhaul, and Last Mile)
 - Certainty and Payment (Cyber Laws, Payment means)
 - Logistical (Postal, and courier)
- Energy**
 - Total Electricity installed 380MW
 - Hydro is 250MW of the 3000MW potential (Less than 10%)
 - 5% of the population are connected to the National Grid (1% in rural)
 - Source of Energy
 - Biomass 92%, Petroleum 6%, Electricity 2%



Challenges in Rural Areas (Developing Countries)

- | | |
|--|---|
| <ul style="list-style-type: none"> Rural Areas <ul style="list-style-type: none"> Lack of Infrastructure (Power, etc) Low Income (ARPU) No Relevant Services, No Relevant Content | <ul style="list-style-type: none"> Telecos in Rural Areas <ul style="list-style-type: none"> Low income (ARPU) High CAPEX for Renewable energy No Infrastructure Safety No Relevant Services, No Relevant Content |
|--|---|

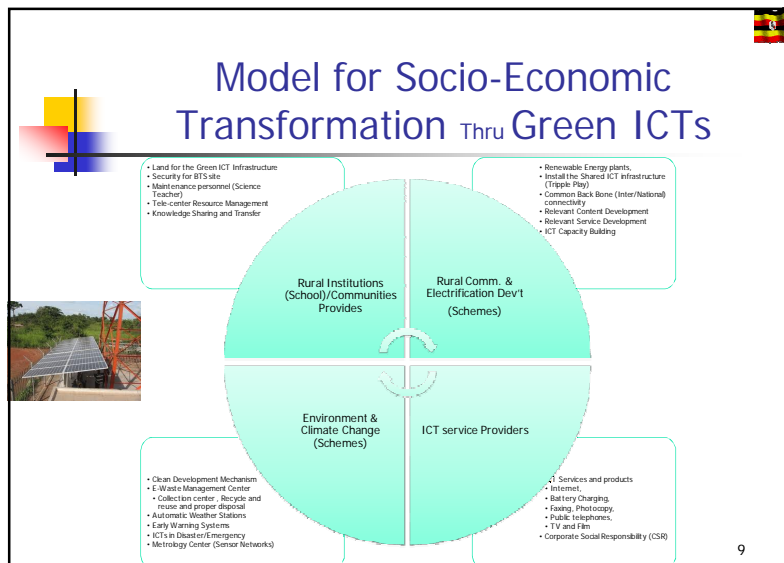
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Target Group (Rural Populace)



Costly, polluting, unhealthy, and unsafe,

Green ICT can Transform the lives of the Rural Populace



- ## Benefits to the Environment
- Direct Reduction in GHG emissions
 - Clean Development Mechanism to Rural Communities in DCs
 - E-Waste Management Scheme
 - Automatic Weather Station (Early warning System, Disaster, Metrology data)
 - Infrastructure Sharing (Energy Savings & Sceneries)
 - Indirect GHG emissions reduction (Smart Technology)
 - Transport (Reduced Travels through e-services),
 - Renewable Energy promotion,
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- ## Benefits (National Level)
- Affordable & Equitably Access to relevant ICT products & Services
 - Employment & Business opportunities
 - New skills & Capacity Development
 - Participation in the Digital Economy & Information Society
 - Socio-economic Transformation (Health, Education (Use of alternative energies Vs kerosene)
 - Facilitates achieving the Millennium Development Goals (MDGS)
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- ## Benefits (ICT Service Providers)
- Lower Total Cost of Ownership (CAPEX, Fuel, operational, security and land costs)
 - Increased revenues and profits
 - Increased coverage & competitive advantage
 - Corporate Social Responsibility (capacity building, businesses, and services)
 - Benefiting from rural communication schemes
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Outlook for Green ICT in Uganda

- Multi-Sector ICT & Climate Change Committee
- Development of relevant Policies, regulations and standards (E-Waste, Telecom)
- International Community participation (GEF, CDM)
- Pilot Project (10 sites for fast 2years, scale up)
- National/Regions Green ICT Research Institute
- Infrastructure to support the Digital Economy
- Awareness Campaign & Capacity Building

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Conclusion

ICT should clean up its act and all the other sectors can ride on its success and potential to achieve sustainable development

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Merci Beaucoup!!!



james.kasigwa@ict.go.ug

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