# Africa E-Access & Usage Index

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# About Research ICT Africa!

## Why a network of researchers?

- To satisfy the growing demand for information and analysis needed for appropriate policy formulation and effective regulation
- To provide a coherent research database on the African continent that informs policy-makers
- To establishing the needs of countries and groups within them, and to conceptualising approaches that are likely to be effective in resolving country-specific problems

# RIA! members

Each member institution represents that country's nodal point:

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2. University of Yaounde II – Cameroon – Olivier Nana Nzépa
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Hosted by the LINK Centre, University of the Witwatersrand, Joburg, South Africa.

# Evolution of the E-Access & Usage Index

Evolved out of 2 baseline studies conducted in 2003:

- ICT Sector Performance Review
  - Sought to assess national policy objectives against outcomes in the ICT sector in terms of delivery and performance
- The Fair Access to Internet Report (FAIR)
  - Sought correlations between ICT policy regimes and regulatory practice, pricing of telecommunications and Internet services and Internet penetration.
  - While significant these factors overwhelmed by other factors.
  - Supply side analysis too limited on its own to provide a useful understanding of ICT development.

# E-Access & Usage Index

- What the E-access & Usage Index seeks to do is measure what is happening in the ICT sector from the lens of users, consumers and those marginalised from services and to analyse access, demand and usage patterns in response to services delivered as a result of operators' responses to policy and regulatory frameworks

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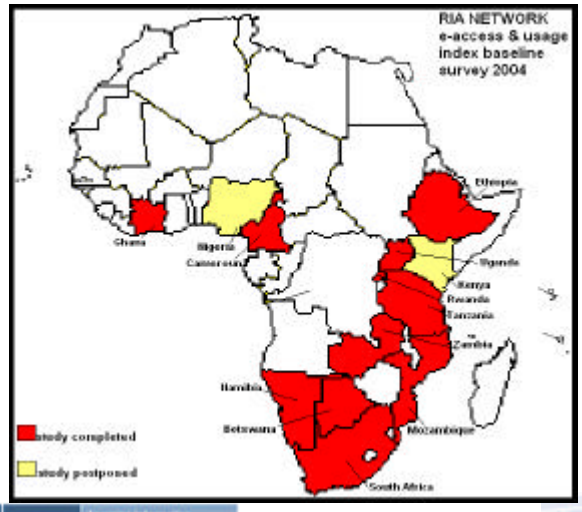
# Participants in the E-Access & Usage Index

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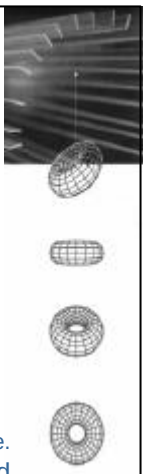
# Methodology

- Cost effective methodology based on the World Health Organisation's Expanded Programme on Immunisation (EPI)
- In order to meet the requirements of a scientific probability sample, there were features common to all countries:
  - Use accepted probability sampling methods at every stage of sample selection;
  - Select a nationally representative sample;
  - Ensure that the field implementation was faithful to the sample design;
  - Ensure that the sample size was sufficient to achieve reliability requirements.
  - The most recent population census was used as the sampling frame.
- The sample was segmented into three unique spatially defined strata: the capital city, other urban areas and rural areas
- Intended that 675 clusters be surveyed in the 14 countries that were selected and that a total of 20250 household interviews be undertaken. In fact 16 000 surveys of household in nine countries were finally undertaken.



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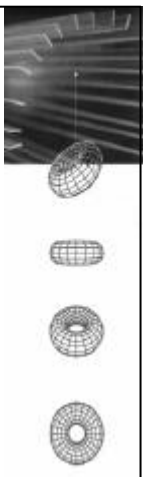
# Sampling

| Country | Population | Diversity | Clusters Targeted | Questionnaires Targeted |
|---|---|---|---|---|
| Botswana | 1,601,913 | Low | 30 | 900 |
| Cameroon | 16,024,854 | Medium | 45 | 1,350 |
| Ethiopia | 67,872,710 | Medium | 75 | 2,250 |
| Ghana | 20,913,268 | High | 45 | 1,350 |
| Mozambique | 18,945,114 | Low | 45 | 1,350 |
| Namibia | 1,971,274 | High | 30 | 900 |
| Rwanda | 7,938,017 | Low | 30 | 900 |
| South Africa | 43,313,670 | High | 75 | 2,250 |
| Tanzania | 36,838,286 | Low | 60 | 1,800 |
| Uganda | 26,166,407 | Medium | 60 | 1,800 |
| Zambia | 10,430,092 | Low | 45 | 1,350 |
| Kenya | 32,262,077 | Medium | 60 | 1,800 |
| Nigeria | 136,408,161 | High | 75 | 2,250 |



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# Questionnaire

- Module 1 - **sampling details** and information on **number of visits**, whom was interviewed.
- Modules 2/3/4 - **demographics, vocation, income and mobile and internet address** information for every member of the household being surveyed.
- Modules 5 and 6 - **household attributes, water, sanitation, waste disposal and postal infrastructure and services** used by the household, as well information on various appliances, including household computers.
- Module 7 - **private non-mobile household phones** and administered only if such were found in the surveyed household.
- Module 8 - usage of **public and office telephones**
- Module 9 - **owned or used a mobile phone** and the information collected is to reflect their own personal situation only.
- Module 10 - **cybercafe and internet usage**

# Mapping

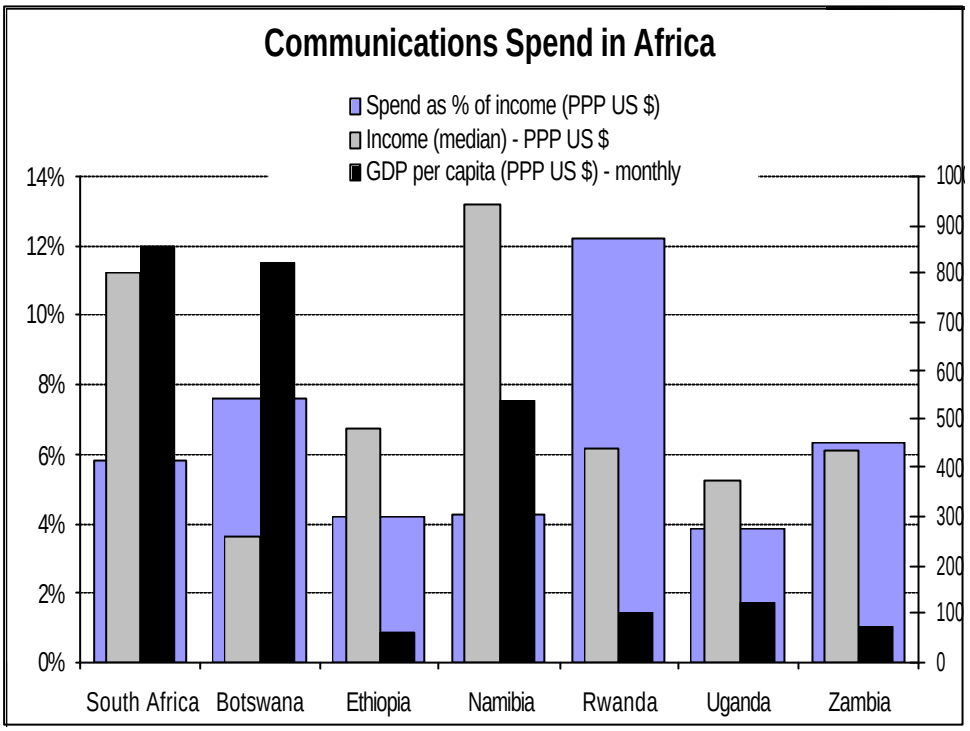
URBAN

RURAL

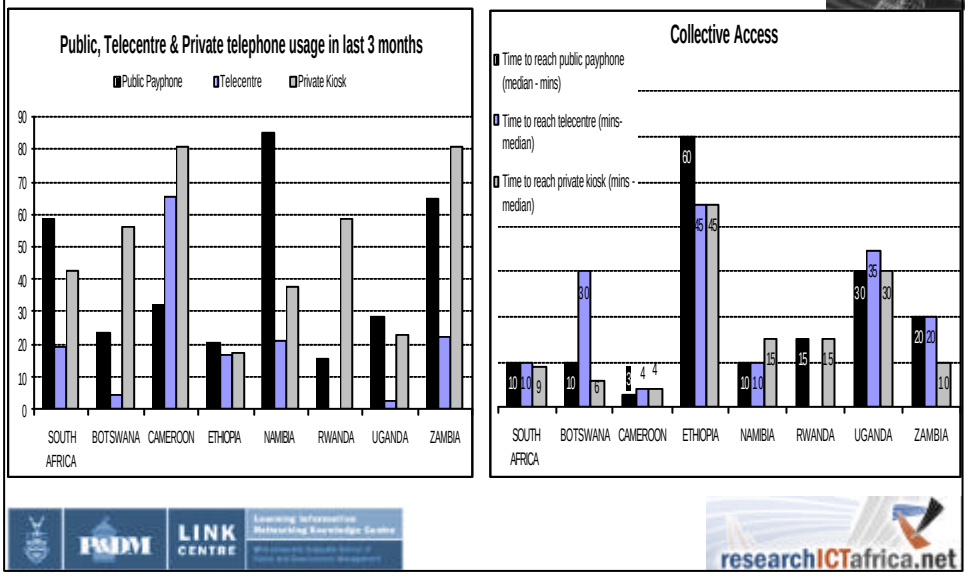
| General | Population | Poverty (% of population below $1 a day) | Adult literacy rate (% ages 15 and over) | Urban population (% of total population) | GDP per capita | Surface area |
|---|---|---|---|---|---|---|
| Botswana | 1.7 | n/a | 78.9 | 49.9 | 2939.0 | 582.0 |
| Cameroon | 15.5 | n/a | 68.0 | 51.0 | 670.0 | 475.0 |
| Ethiopia | 67.3 | 81.9 | 41.5 | 16.2 | 96.0 | 1104.0 |
| Namibia | 1.8 | n/a | 83.3 | 31.9 | 1523.0 | 824.0 |
| Rwanda | 8.2 | n/a | 69.2 | 6.4 | 210.0 | 26.0 |
| South Africa | 43.6 | n/a | 86.0 | 58.4 | 2293.0 | 1221.0 |
| Uganda | 23.4 | 26.8 | 68.9 | 14.9 | 243.0 | 241.0 |
| Zambia | 10.5 | 63.7 | 79.9 | 40.1 | 338.0 | 753.0 |

Sources:Development Data Group, World Bank
ITU World Telecommunications Development Report, 2003

| | Botswana | Cameroon | Ethiopia | Namibia | Rwanda | South Africa | Uganda | Zambia |
|---|---|---|---|---|---|---|---|---|
| Fixed line penetration (%) | 22.4 | 8.8 | 5.2 | 13.2 | 4.3 | 22.1 | 0.8 | 18.6 |
| Mobile penetration - prepaid (%) | 23.3 | 29.4 | 0.4 | 12.1 | 8.3 | 32.7 | 3.0 | 17.7 |
| Email penetration - subscribers (%) | 3.2 | 13.7 | 0.1 | 1.6 | 6.4 | 5.7 | 0.4 | 6.3 |
| Payphone % (used in the last 3 months) | 23.4 | 31.7 | 20.8 | 83.0 | 15.8 | 47.3 | 27.8 | 64.9 |




# Public access

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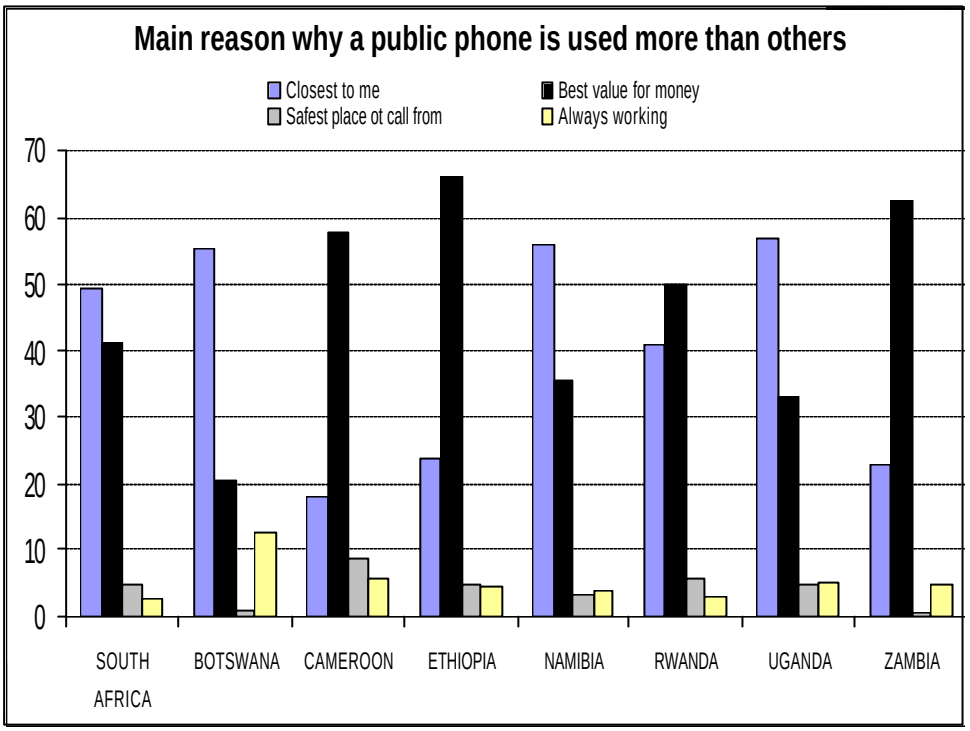
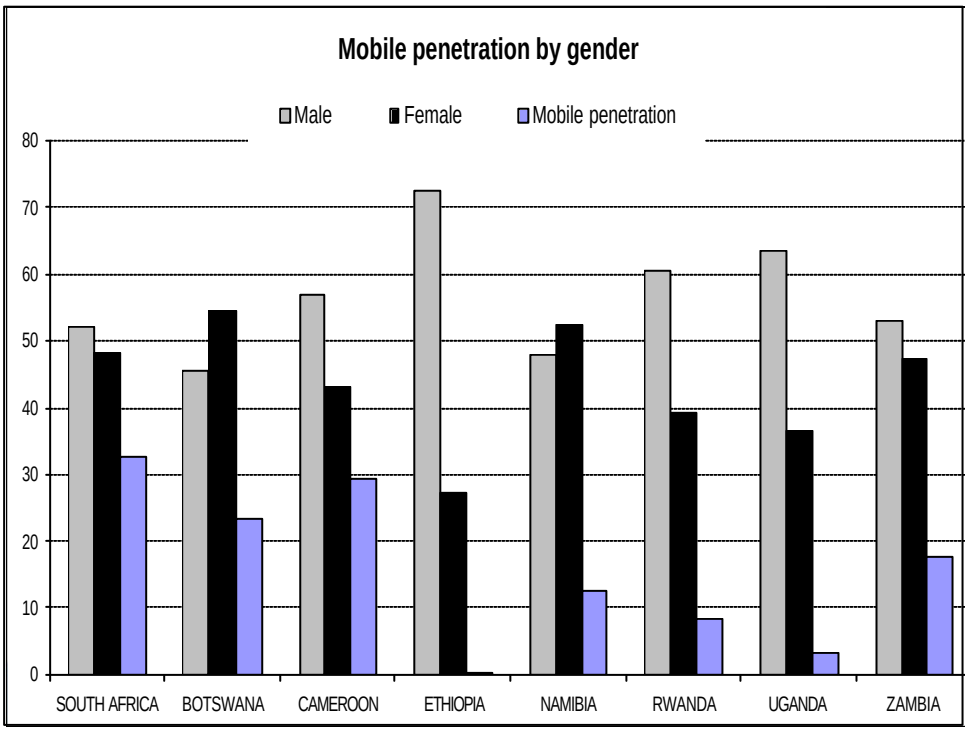
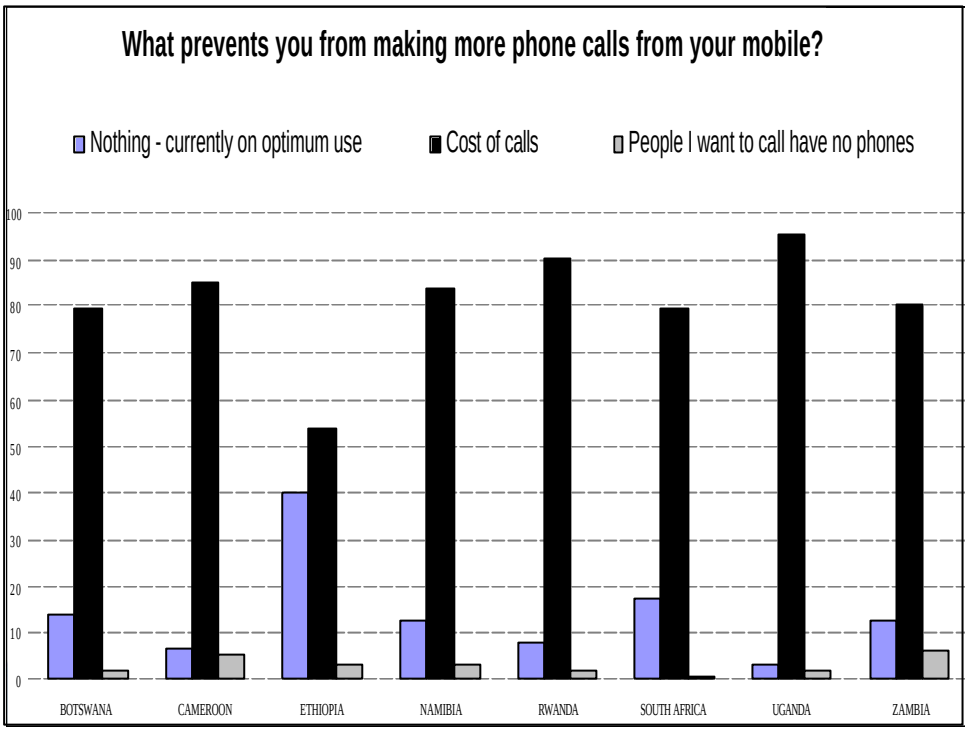
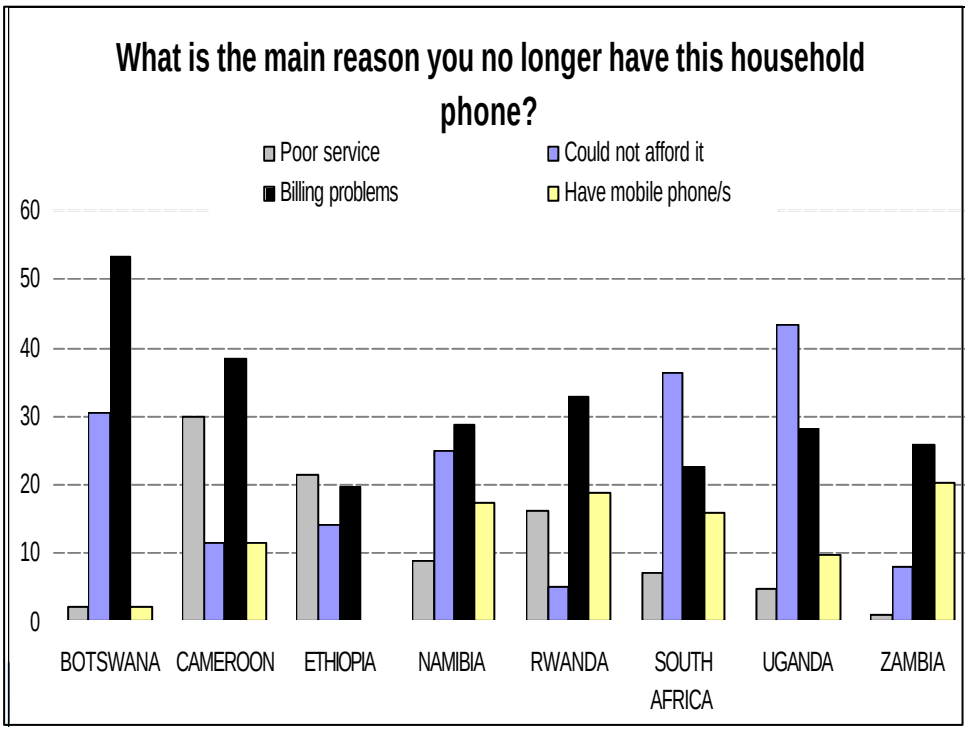

Main reason why a public phone is used more than others
Closest to me
Best value for money
Safest place ot call from
Always working
70
60
50
40
30
20
10
0
SOUTH AFRICA
BOTSWANA
CAMEROON
ETHIOPIA
NAMIBIA
RWANDA
UGANDA
ZAMBIA


Mobile penetration by gender
Male
Female
Mobile penetration
80
70
60
50
40
30
20
10
0
SOUTH AFRICA
BOTSWANA
CAMEROON
ETHIOPIA
NAMIBIA
RWANDA
UGANDA
ZAMBIA


What prevents you from making more phone calls from your mobile?
Nothing - currently on optimum use
Cost of calls
People I want to call have no phones
100
90
80
70
60
50
40
30
20
10
0
BOTSWANA
CAMEROON
ETHIOPIA
NAMIBIA
RWANDA
SOUTH AFRICA
UGANDA
ZAMBIA


What is the main reason you no longer have this household phone?
Poor service
Could not afford it
Billing problems
Have mobile phone/s
60
50
40
30
20
10
0
BOTSWANA
CAMEROON
ETHIOPIA
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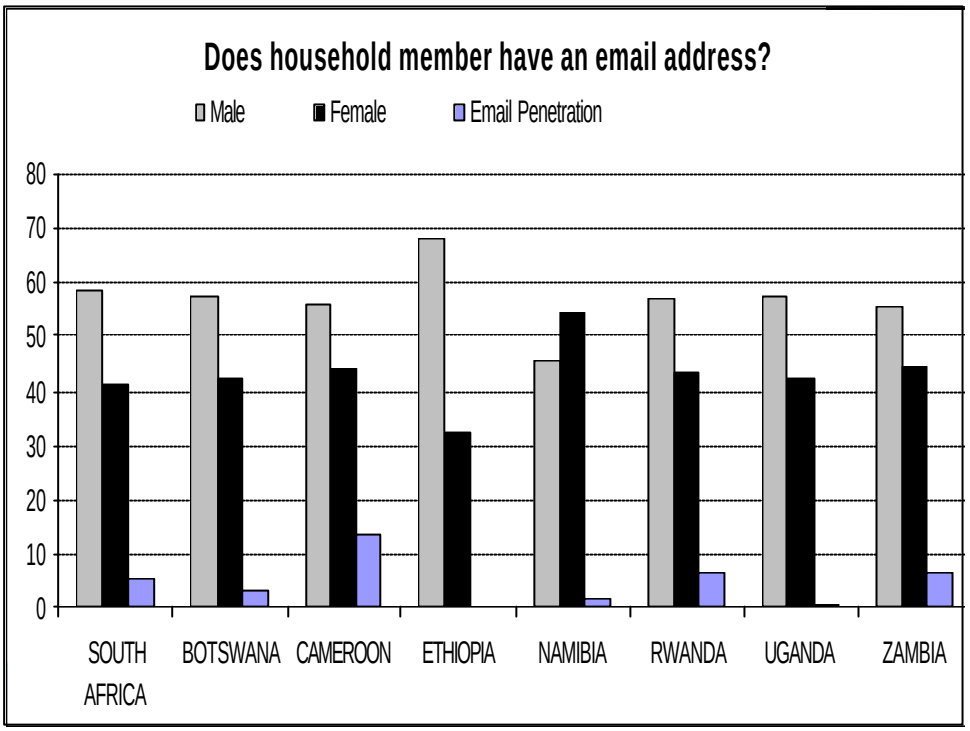
SOUTH AFRICA
UGANDA
ZAMBIA




# Research Limitations

- Must be recognised that there are certain limitations to the study, primarily due to scarce resources and time:
  - The viewpoints and background of the researchers inevitably shaped the research process and final findings.
  - Although respondents assured of confidentiality, it is likely that some participants were reserved in the content of their responses.
  - This research needs to be supplemented (and extended) with qualitative research methodologies to further analyse responses and findings

# WIP

- Original draft version available from 7 February 2005 at www.researchictafrica.net