Sub-Saharan Africa – Universal Service Fund study

SEPTEMBER 2014

Report prepared for GSMA by Ladcomm Corporation

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01.

Executive Summary

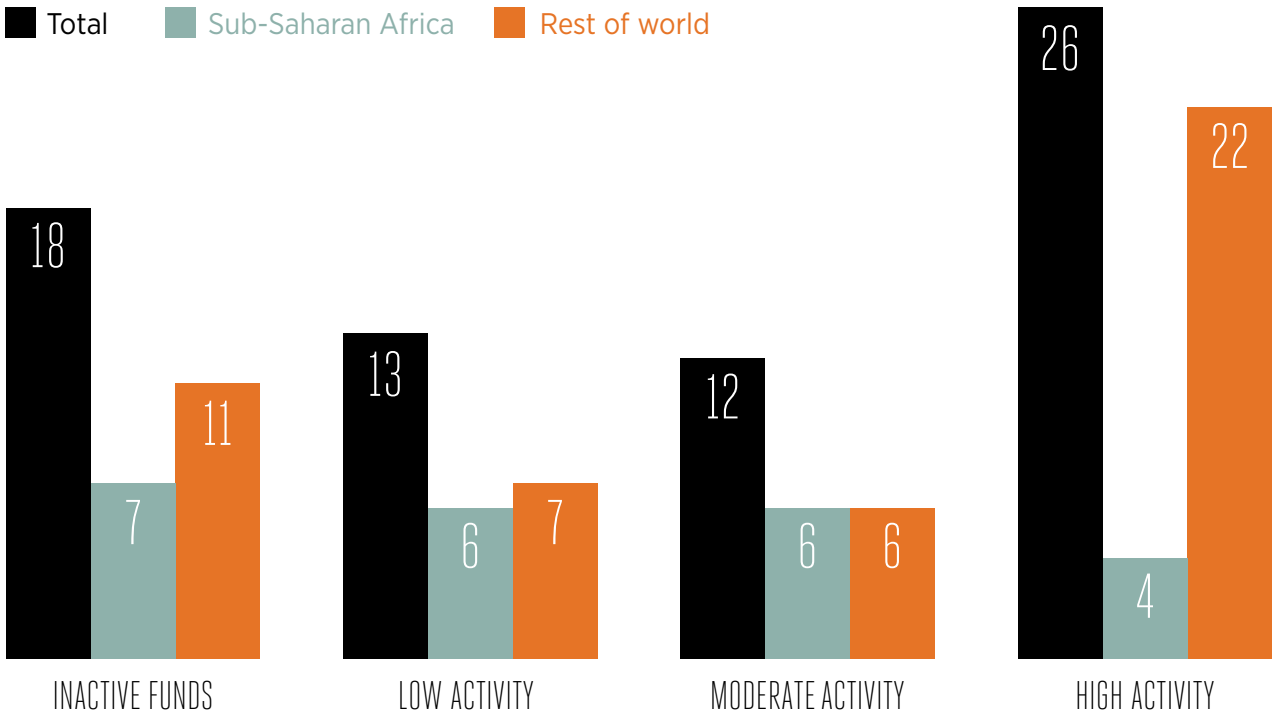
The following report examines Universal Service Funds ('USFs') in 23 Sub-Saharan African ('SSA') countries These USFs are examined in a global context i.e., taking into account their characteristics and performance when measured against an additional 46 USFs in the Arab States, the Americas, Europe and Asia Pacific (an overall total of 69 countries studied). The report draws on information used to prepare global USF overview reports for both the GSMA and the International Telecommunication Union (ITU) over the last two and a half years.

In general, there are significant deficiencies in fund structure, management and operation throughout the SSA region. In fact, if it is not possible to disband the majority of the funds and return the monies collected, then these USFs will require significant reform and restructuring in order to be transformed into functional and effective investment support vehicles for unserved and underserved areas in SSA.

The following provides a brief snapshot of the current state of USFs in SSA. A detailed analysis is provided in the sections that follow this Executive Summary.

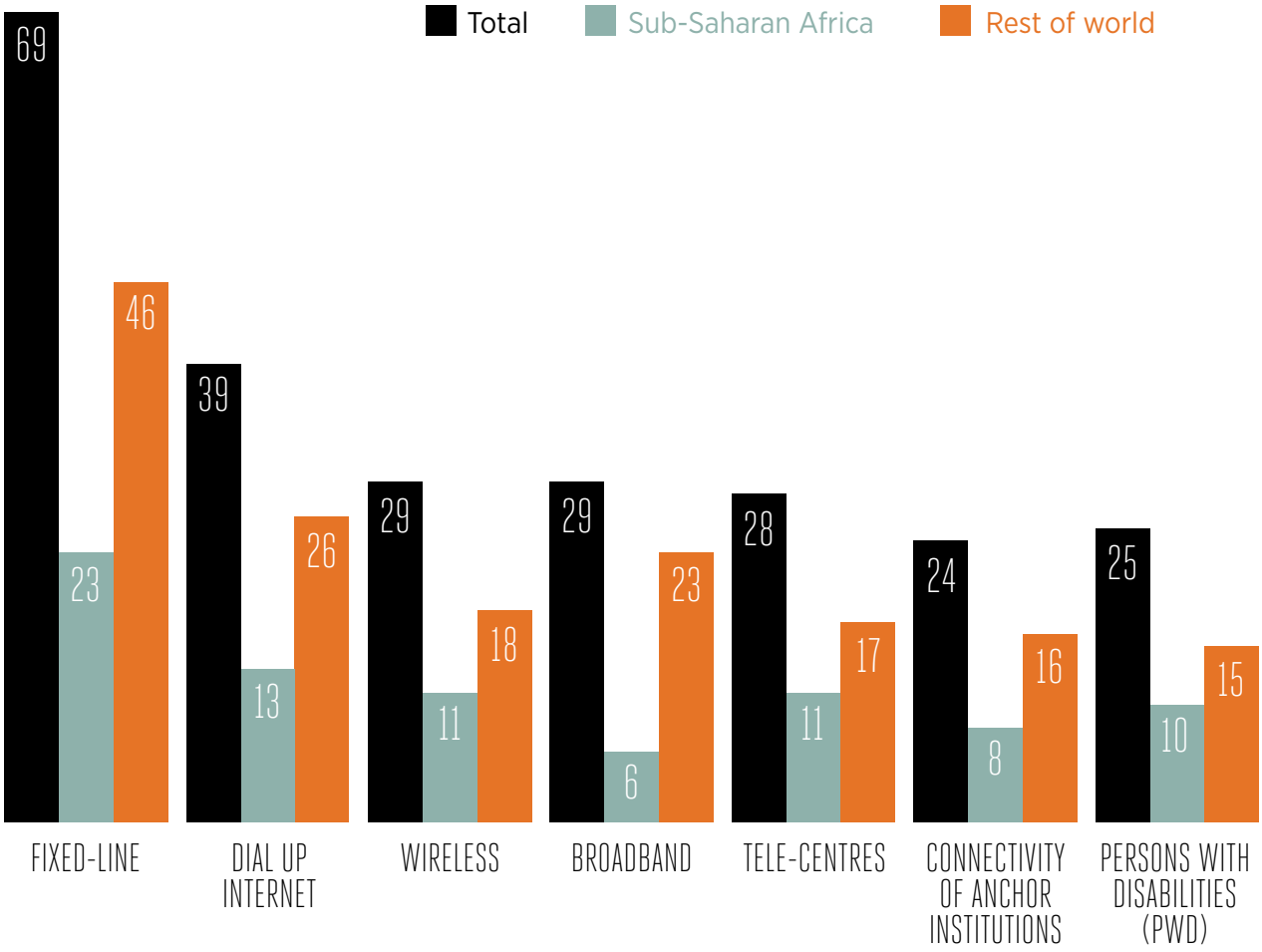
- More than half the funds (12 out of 23) apply levies of 2% or more of operator revenues.
- There does not appear to be any correlation between the levies collected and the actual universal service funding requirements i.e., no in-depth needs assessments or project forecasts are carried out.
- Just over half of the inactive funds within the 69 countries studied are based in SSA as depicted below.

FUND ACTIVITY LEVELS



- In regards to USF project funding capabilities, the following chart illustrates the technologies and services that can be supported by USFs; of particular note is that less than 50% of the SSA USFs are able to fund wireless technologies and just over 25% of the SSA USFs permit funding of broadband.

SERVICES/TECHNOLOGIES SUPPORTED



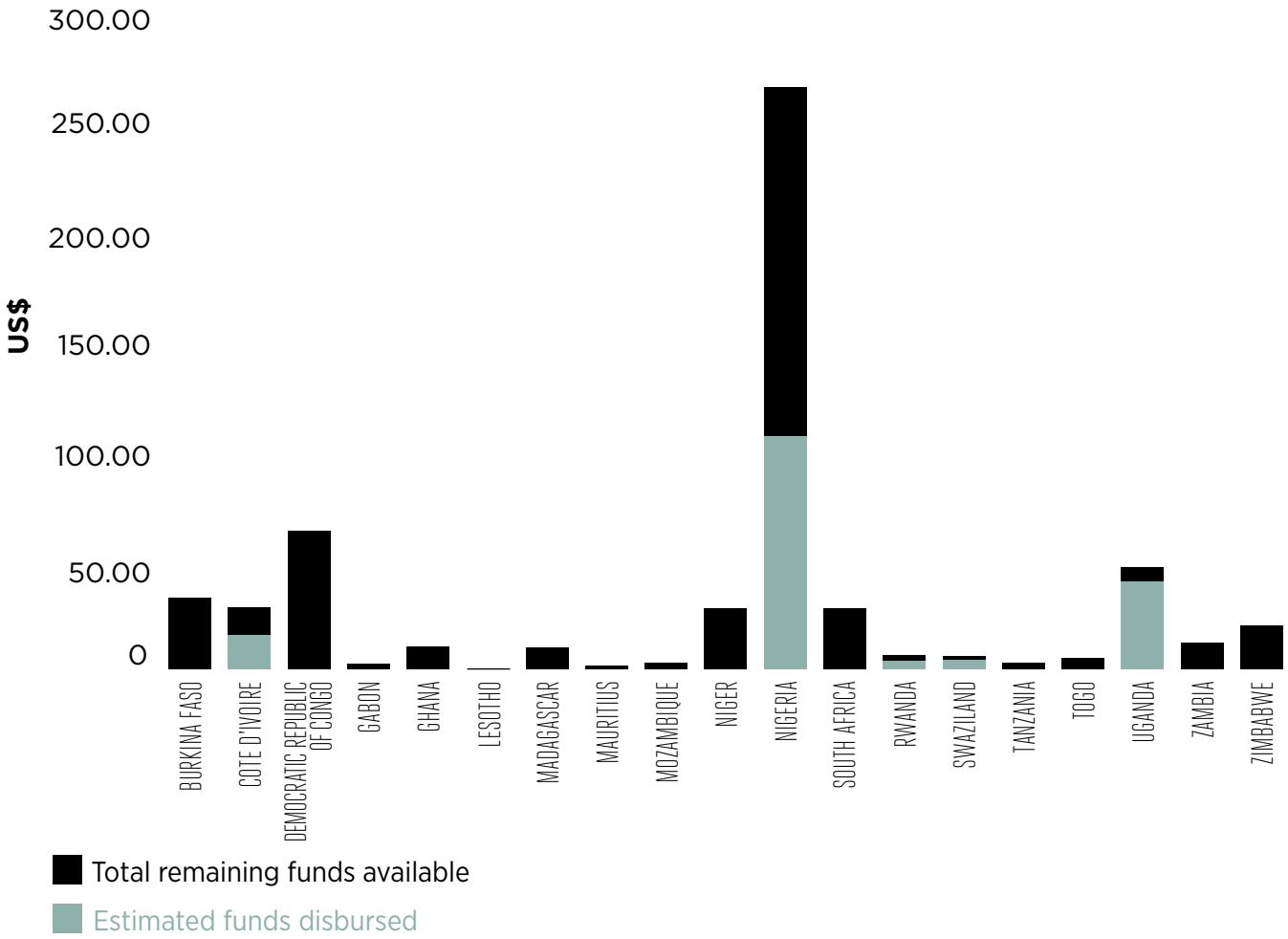
  - 11 funds permit the financing of tele-centres or community centres (the only area in which SSA is better positioned than other regions).

- Obtaining accurate financial reports (or any reports at all) regarding funds collected and disbursed is possible in only a few countries (e.g., Ghana, Uganda); even in countries where the telecommunications regulatory environment is advanced and the fund guidelines are clear, the reports simply do not get issued:
  - Only two funds currently have formal annual reporting procedures in place.
  - Some other funds provide intermittent reports on project allocations.

- Overall transparency levels are low to extremely low (e.g., Mauritius, Sudan, Zimbabwe) with only a few exceptions such as Ghana and Uganda but with significant transparency improvements expected in Nigeria and South Africa.

- Both the total levies collected as well as the levels of undisbursed funds cannot be accurately ascertained due to this lack of timely and transparent reporting.

USF ACTIVITY: FUNDS DISBURSED AND AVAILABLE



Sources: derivations from annual reports, reports from fund web sites, operator reports, etc.[1]

As can be seen from the illustration above, 19 of the 23 USFs covered in this report contained more than US$400 million waiting to be disbursed at the end of 2011 but this is likely significantly understated in most cases due to the lack of reliable reporting and information. Of those funds studied, many have not disbursed any money. In fact, of those USFs where levies are currently being applied and collected, it is estimated that only 60% of these same USFs have carried out some level of disbursement or reported that some disbursements have been made. In other words, more than one third of the USFs in this study have yet to disburse any of the levies collected and **none** of the funds would appear to disburse all that they collect. In the majority of the cases in which USF levies and taxes have been established, no substantive analysis has been carried out by the fund policymakers or administrators regarding the actual service funding/subsidy levels needed versus the amounts collected. It is possible, although difficult to confirm concretely, that the lack of technological flexibility in how the funds can be utilised may be one of the underlying reasons for the generally large gap between the levies collected and the typically minimal disbursements.

The underlying legal frameworks for many SSA funds were not well conceived

1. Excludes countries where no financial reporting whatsoever is available (e.g., Cameroon, Mali, Mauritania and Senegal)

from the outset (e.g., not technology-neutral or service-flexible, excessively bureaucratic, insufficient oversight, etc.) and this has resulted in a high number of ineffective or inactive funds than the global median. Inappropriately-conceived legal frameworks also pose a major obstacle to the introduction of rural broadband (whether fixed or mobile) in SSA through the use of the USF mechanism.

Even in funds where there is a degree of autonomy and independence, there are many cases where political intervention or interference from other government agencies affect the fund's performance or its ability to function at all (e.g., Mali) resulting in extensive delays in decision making. At the same time, many USFs suffer from, or have been accused of, poor or ineffective administration/use of funds (e.g., South Africa, Nigeria and Zimbabwe) with a number embroiled in disputes between the fund administrators and the operators.

In many instances, the programmes and targets established for the deployment of tele-centres and community information centres (an area in which SSA has shown commendable focus from a policy but not an execution perspective), for example, have failed to take into account issues related to training and education, maintenance, power sources and other sustainability concerns. Overall, project and financial reporting (transparency) for most funds are extremely inadequate.

Out of all the funds surveyed within SSA, Ghana and Uganda appear to be the countries that come the closest to reflecting best practice in the development and administration of USFs. To its credit, Nigeria has recognised the need for a major restructuring and re-orientation of its USF and is in the process of effecting major changes. In the same vein, South Africa put a halt to the gross mismanagement of its USF and has also engaged in a positive major overhaul.

Still, alternative approaches to achieving universal service are often more effective than USFs. In fact, increased availability of telecommunications services has generally been accomplished through alternate solutions, such as the imposition of licence conditions on operators, the establishment of new plans or funds that are separate from the existing USF, or private/public partnerships (e.g., Brazil and Finland).

In summary, based on the general USF approach and performance to date, USFs in SSA do not appear to be the most appropriate mechanism for providing universal access and service and furthering social and economic improvement in a pro active, cost effective and transparent manner. Consideration must be given to four possible directions going forward:

- Where feasible, in the case of completely inactive funds, disband inactive funds and return the remaining monies to the operators who paid the levies in the first place.

- Where the previous option is not feasible, gradually reduce the levy collected for either inactive or low activity funds and gradually phase out the funds.

- Major improvement programmes to deal with the current defects in fund structure and administration.

- Exploration and use of alternative methods to achieve universal service.

02.

Introduction and general overview

2.1

WHAT IS A UNIVERSAL SERVICE FUND (USF)

One of the principal policy goals of telecommunications regulators and ministries is to make telecommunications services accessible to the widest number of people at affordable prices. Liberalisation of telecommunication markets and promotion of competition have delivered telecommunications services to the vast majority of the world's population. The concept of Universal Service is to provide each individual with telecommunications services at affordable prices. This is basically underpinned by the following three principles:

Availability

The level of service is the same for all users in their place of work or residence, at all times and without geographical discrimination.

Affordability

For all users, the price of the service should not be a factor that limits service access.

Accessibility

All telephone subscribers should be treated in a non-discriminatory manner with respect to the price, service and quality of the service, in all places, without distinction of race, sex, religion, etc.

Universal Service (US) is distinct from Universal Access (UA) in that Universal Service is generally regarded as being oriented towards providing service to individuals or households whereas Universal Access is considered to be oriented towards providing service to communities.

Universal service costs vary substantially between countries and are influenced by many factors, including:

- the definition of 'universal' as well as the 'universal' policy goal as applied in a particular jurisdiction;

- the demographic and geographical characteristics of a country, for example:
  - income distribution (affordability levels)
  - population density
  - rural and urban population ratios
  - literacy and education rates of the population
  - geography (terrain, distances, etc.)

- efficiency and presence of existing operators; and

- existing legal and regulatory framework (e.g., monopoly, liberalised).

There are varying approaches to address Universal Service requirements. These include[2]:

- market based reforms
- mandatory service obligations
- cross subsidies
- access deficit charges
- universal funds
- private public partnerships

Over the last two decades, out of the approaches listed above, in addition to market based reforms and mandatory service obligations, the increasingly common approach to help achieve the universal service goal has been the creation of a funding mechanism - USFs. These funds are intended to serve as a financial incentive for operators to provide universal service. Such funds are often used in competitive markets to supplement market-based policies and in order to address access gaps and possible market failures in remote and under-served locations. Globally, SSA is one of the regions that has most enthusiastically embraced the USF concept from a policy perspective (although not necessarily from an implementation perspective).

2. ICT Regulation Toolkit Chapter 5 – Universal Access

In the majority of cases, USFs are financed through a contribution mechanism from telecommunications service providers. The USF contribution methodology can be addressed in several different ways. In some cases, the contributions are fixed monthly, quarterly or annual fees whereas, in others, the fees are calculated as a percentage of gross revenues (often with some defined exclusions in the calculation of the revenues). As in the case of revenue sharing schemes, there may be a requirement for the service providers to pay estimated amounts based on revenue projections, with retroactive adjustments made once the year end audited annual financial results are made available. In some countries, the USF fee is not a separate fee but rather, a portion of an overall regulatory or licensing fee. In such cases, the portion of the fee to be directed to the USF may be fixed, but in other cases, it could be subject to annual review. The fees may go directly to the USF or USF administrator, or the fees may be collected by the National Regulatory Authority ('NRA') and then subsequently transferred to the fund manager/administrator.

In addition to a service provider's direct or indirect contribution mechanism, there may be other sources of funds including, but not limited to: full or partial proceeds from spectrum auctions, licensing fees, direct government contributions, private industry contributions, etc. The manner in which these USF funds may be subsequently accessed and utilised is addressed within this document and will be explored in the sections that follow.

2.2

STUDY OBJECTIVE AND METHODOLOGY

In late 2012, a major global study encompassing 64 countries was conducted on behalf of the GSMA in order to examine the performance and efficacy of USFs. This was followed by an ITU study of 69 countries, completed in mid-2013, which focused on ways in which to improve existing funds. These studies sought to examine ways in which USFs have been created, the volume of monies collected and the extent to which money was disbursed and projects funded. In addition, the studies also addressed whether the current structures of many USFs are flexible enough to permit a timely and practical response to rapid technological change and societal requirements. This report attempts to amalgamate and distill the information addressed in these two separate global studies in order to provide a detailed analysis of how funds are operating in SSA and whether improvements or a new paradigm are required going forward.

The project team used raw data collected for the reports referenced in the previous section. This data was obtained from a variety of sources including, but not limited to, internet searches, entry into specific regulator and USF/Universal Service Access Fund (USAF) websites and databases and access to published articles and reports. The team also exchanged correspondence and conducted interviews and conference calls with regulators, fund administrators and fund associations (with varying degrees of success in terms of response rates from the entities and individuals contacted). In addition, the team also relied on its network of contacts amongst regulators, operators and industry analysts to seek out additional information that is not readily available publicly.

Wherever possible, the same database was used to present the same information elements; however many databases do not

include data for all countries and in such cases, every attempt was made to limit the number of different databases utilised for the specific information element (e.g., GSMA Intelligence and Global Wireless Matrix for wireless penetration levels). Data gathering with respect to the financial performance of most of the SSA funds was especially challenging given the lack of reliable, published information in this regard, coupled with extreme reticence on the part of most fund administrators to enter into any detailed discussions regarding financial reporting.

In addition to the challenges of dealing with conflicting information, as referenced above, an even more difficult aspect of the report was the scarcity of accurate, credible information with respect to the USF funds collected, the USF funds disbursed and the money still residing in the individual funds. This is primarily attributable to the fact that very few funds appear to have any regular, formal reporting with respect to the financial management of the fund; in order to arrive at estimates in this regard, in addition to using and citing fund financial reports where available, the author also used the following approaches:

- Compilation of individual, confidential reports submitted by operators in which their annual USF contributions were identified; using market share data, annual reports (or similar), estimated other operators' contributions on a conservative pro rata basis.
- "Off the record' discussions with regulators and fund managers.
- Searches of newspaper and magazine articles that referenced USF amounts.
- In cases where the fund levies are a defined percentage of operating revenues, a derivation of contributions based on publicly reported operator revenues if and when no other official source was available.
- When the aforementioned approaches failed to yield results, where feasible, the author has cited previously published estimates where the estimates appeared to be from reliable/official reporting sources (e.g., ITU).
- In some cases, none of these approaches to calculating funds were successful and requests for information from the fund administrators remained unanswered.

03.

Overview of USFs

3.1

INTRODUCTION

As alluded to in the explanation in the previous section regarding the study methodology utilised in the preparation of this report, the ability to arrive at an accurate understanding of USFs in SSA (or for that matter, elsewhere) is frequently hampered by the availability and reliability of information. On the one hand, there is a multitude of information, often conflicting or contradictory, regarding the administration and performance of some funds whereas, on the other, there is an almost complete lack of easily accessible information for other funds, especially in countries where published information is available only in the national language. Further compounding these challenges is that many of the officially published reports regarding USFs reflect the understandably human reaction of wanting to present achievements in the best possible light while perhaps understating some of the less successful aspects of the USF in question. Therefore, in the sections which follow, the author has attempted to present the information as consistently and as objectively as possible using multiple information sources with the aim of presenting a balanced assessment of the overall state of USFs as of late 2012 / early 2013. This was not always possible and where the information is older, this has been identified. The USF information contained in this section is as follows.

Section 3.2 – Fund Profiles contains a series of summary tables intended to highlight the principal characteristics of the funds examined in this report; this includes:

- a snapshot/high level summary of the fund profiles
- type of services on a per country that can be supported by the USF
- description of USF levies and how they are applied per country
- an examination on a country by country basis of the status of funds collected versus funds disbursed.

3.1

FUND PROFILES

3.2.1 SNAPSHOT OF THE SSA FUNDS STUDIED

The following table displays the current status of the SSA funds included in the study. The definitions for fund activity levels are as follows:

1 **INACTIVE** – monies collected but no known disbursements have taken place

2 **LOW ACTIVITY** – less than five applications of the fund

3 **MODERATE ACTIVITY** – between six and 15 applications of the fund

4 **HIGH ACTIVITY** – more than 15 applications of the fund

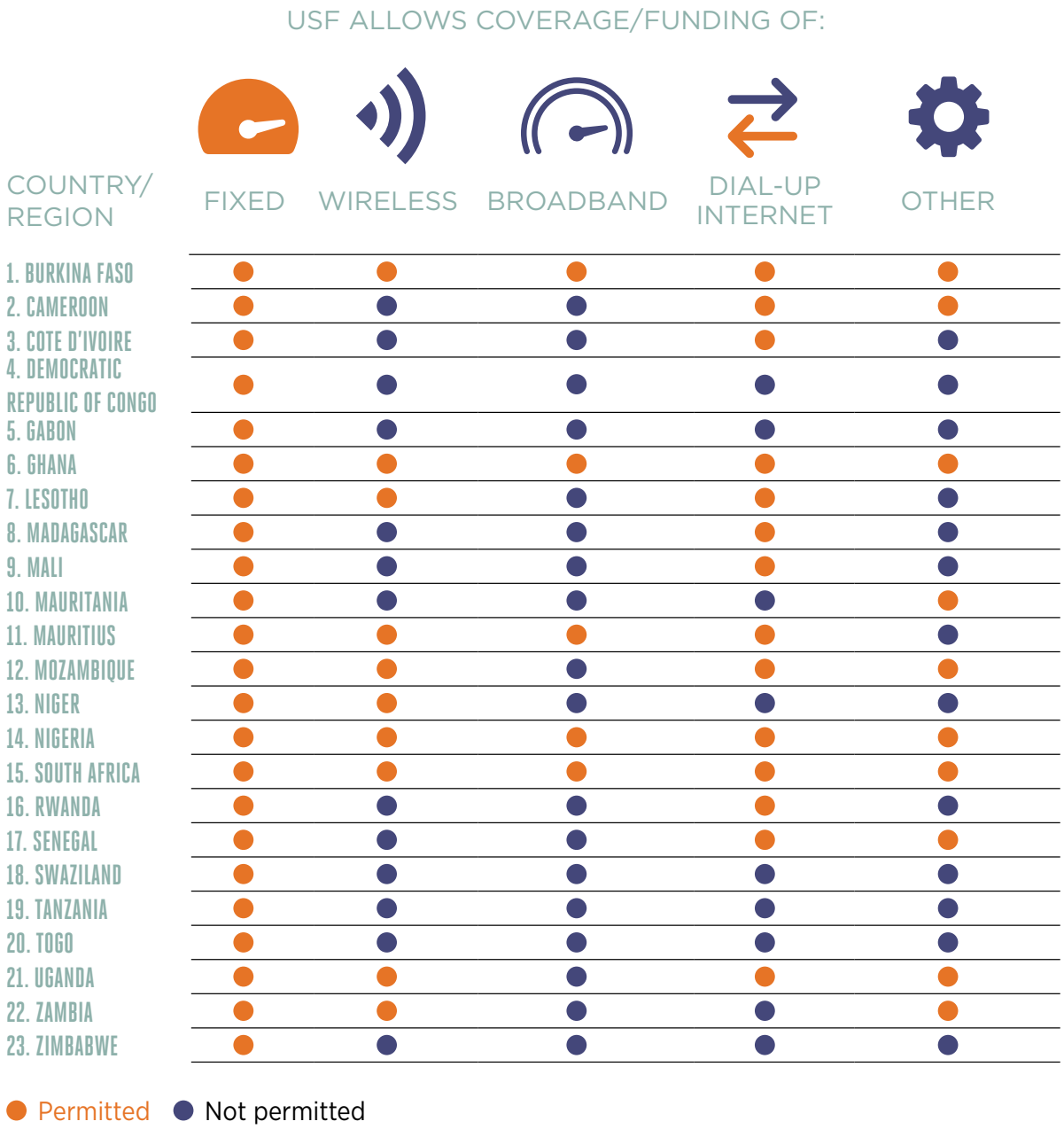
SSA USF STUDY

	TOTAL	SUB-SAHARAN AFRICA	REST OF THE WORLD
TOTAL NUMBER OF FUNDS SURVEYED	69	23	46
LEVEL OF FUND ACTIVITY			
INACTIVE FUNDS	18	7	11
LOW ACTIVITY	13	6	7
MODERATE ACTIVITY	12	6	6
HIGH ACTIVITY	26	4	22
SERVICES/TECHNOLOGIES SUPPORTED			
FIXED-LINE	69	23	46
DIAL UP INTERNET	39	13	26
WIRELESS	29	11	18
BROADBAND	29	6	23
TELE-CENTRES	28	11	17
CONNECTIVITY OF ANCHOR INSTITUTIONS[3]	24	8	16
PERSONS WITH DISABILITIES (PWD)	25	10	15

3. An anchor institution includes but is not limited to schools, colleges, universities, health centres, hospitals, post offices, sports facilities, performing arts and other cultural facilities (such as museums and libraries) and public utilities.

3.2.2 TYPES OF SERVICES

Although there are numerous questions regarding the structure and performance of USFs, one of the most fundamental questions that is asked on a consistent basis is what services can be addressed/subsidised by USFs? The following summary chart demonstrated why so many SSA funds are extremely limited in the investments that they are able to undertake. These high level profiles are broken down in greater detail in section 4 – Deep Dives as well as in section 8 – USF Country Overview Tables.



4 Other has many different definitions but generally refers to tele-centres, community access centres and similar concepts.

3.2.3 TABLE OF USF LEVIES APPLIED

The following table summarises the levies as they are applied within individual countries. Additional detail is provided in sections 4 and 8.

COUNTRY	AMOUNT AND NATURE OF LEVY
1. BURKINA FASO	2% of annual revenue net of interconnection payments from all operators
2. CAMEROON	3% of untaxed annual turnover
3. COTE D'IVOIRE	2% of Gross Annual Revenues from mobile operators only
4. DEMOCRATIC REPUBLIC OF CONGO	Contributions assessed against all operators, providers of services, and manufacturers or importers of telecommunications materials; no known assessments to date
5. GABON	2% of net revenue per year from fixed and mobile operators
6. GHANA	Licensed operators (fixed/mobile operators and MNP CRDB service providers) are required to contribute 1% of their annual revenue (Net revenue means Gross Revenue less VAT, National Health Insurance Levy)
7. LESOTHO	1% of Net Operating Income on annual basis; can also use 25% of NRA operating surplus
8. MADAGASCAR	Annual contributions of operators equal to 2% of gross revenues earned from operating public telecommunications networks and provision of public telecommunications services
9. MALI	1% of annual revenues from licensed operators
10. MAURITANIA	3% of gross revenues
11. MAURITIUS	Either a percentage of turnover or a percentage of the price of every incoming call on each fixed and mobile operator's network: 1). Annual contribution paid in monthly instalments by operator - 5% of gross revenue generated by operator from provision of international roaming service for that month 2). US$ 0.025 per minute of international calls terminated by operator in that month
12. MOZAMBIQUE	All licensed and registered entities rendering telecommunications public services must contribute 1% of net operating income of the previous year
13. NIGERIA	Operators do not contribute directly to the USPF but are required to pay 2.5% of net operating revenue, (Annual Operating Levy: AOL). The NCC, in turn, contributes 40% of the AOL to the USPF for its activities. Based on the 2007 Regulation, the fund is to be financed based on 1% of net revenues (net of interconnection payments) of the licensees
14. NIGER	After 2003: 4% of annual net (gross) revenue from all licensed operators
15. SOUTH AFRICA	CASA determines the basis of operators' contributions, which may not exceed 1% of their annual turnover. Currently, the contribution is set at 0.2% of annual turnover (total revenue from licensed activity, less service provider discounts, agency fees, interconnection, facilities leasing charges, government grants and subsidies)
16. RWANDA	2% of gross annual revenues, net of interconnection payments from all operators
17. SENEGAL	3% of sales (excluding taxes) from all energy and telecom players plus 0.15% of turnover from licensed telecom operators
18. SWAZILAND	Contributions from a general levy on all operators' revenue (amount not specified)
19. TANZANIA	0.3% of yearly gross operating revenue from all communications service operators (including ISPs, post and courier companies)
20. TOGO	2% of annual gross revenues net of interconnection payments from all operators
21. UGANDA	1% of gross annual revenues net of interconnection payments, from all operators, including the postal service couriers and ISPs
22. ZAMBIA	CAZ has been retaining 10% of its revenue from annual licensing fee as part of USDF
23. ZIMBABWE	2% of Gross Annual Revenues from all operators

One of the major challenges regarding the levies contained in the table above is that, as far as can be determined, there is no correlation between how the levy was determined versus the sums actually required to achieve universal service goals (if indeed these goals have even been articulated in the first place). Although some USFs have published budgets from time to time, they have not formed the basis of the levies since the levy amount has been pre-set.

3.2.4 FUND COLLECTION AND DISBURSEMENT

As discussed earlier, availability of accurate information is extremely limited in SSA countries regarding the total funds amounts collected and disbursed. When information is made available, it is generally late to be published or simply out of date. As will be demonstrated in section 7 – USF Overview Tables, there is some availability regarding the funds utilised on an individual basis but, typically, this is presented in the absence of any context regarding the total amount of funds collected or spent. In the table below, where available, the respective columns indicate the last year for which information was published regarding the total levies collected. The subsequent columns then present the last year in which a fund balance was reported followed by any reported disbursements. The final column reflects estimates of the levels remaining in the individual funds once the monies have been disbursed. It is extremely important to reiterate that these are estimates based on the best available information calculated using the various sources explained previously in section 2. disbursements. The final column reflects estimates of the levels remaining in the individual funds once the monies have been disbursed. It is extremely important to reiterate that these are estimates based on the best available information calculated using the various sources explained previously in section 2.

COUNTRY/ REGION	LAST YEAR CONTRIBUTION REPORTED/ ESTIMATED	CONTRIBUTION AMOUNT IN (US$ M)	LAST YEAR FUND BALANCE REPORTED/ ESTIMATED	REPORTED FUND BALANCE AMOUNT IN (US$ M)	REPORTED MONEY DISBURSED IN (US$ M)	ESTIMATED REMAINING FUNDS AVAILABLE (US$ M) YE 2010/2011
1. BURKINA FASO	2010	5.30	2010	32.70	0.00	32.70
2. CAMEROON						
3. COTE D'IVOIRE	2010	30.00	2010	28.10	15.60	12.50
4. DEMOCRATIC REPUBLIC OF CONGO	2008	19.10	2008	63.20	0.00	63.20
5. GABON	2009	2.50	2009	2.50	0.00	2.50
6. GHANA	2011	8.10	2011	10.50		10.50
7. LESOTHO	2011	1.00	2011	0.61		0.61
8. MADAGASCAR	2011	4.20	2011	10.00		10.00
9. MALI						
10. MAURITANIA						
11. MAURITIUS	2011	2.70	2009	1.70		1.70
12. MOZAMBIQUE	2008	1.90	2009	3.00		3.00
13. NIGER	2011	8.70	2011	28.00	0.00	28.00
14. NIGERIA	2008	159.70	2010	266.77	106.70	160.00
15. SOUTH AFRICA	2011	28.80	2011	28.80		28.80
16. RWANDA	2008	2.40	2010	6.60	3.70	2.90
17. SENEGAL						
18. SWAZILAND	2008	2.40	2008	6.00	4.25	1.76
19. TANZANIA	2010		2010	3.00	0.00	3.00
20. TOGO	2011	1.20	2011	5.10	0.00	5.10
21. UGANDA	2011	3.50	2011	47.00	40.00	7.00
22. ZAMBIA			2009	12.00	0.00	12.00
23. ZIMBABWE	2009	3.20	2010	20.00		20.00
REGIONAL TOTAL		284.70		575.51	170.25	405.26

04.

Deep dive analysis

4.1 GHANA

4.1.1 COUNTRY OVERVIEW

Ghana has a land mass of approximately 238,533 sq. km. and is located in Western Africa, bordering the Gulf of Guinea, between Cote d'Ivoire and Togo.

Ghana consists mostly of low plains with a dissected plateau in the south-central area. Its 25.2 million inhabitants are 51.9% urban with many residing in the two major cities: Accra (capital) – 2.3 million and Kumasi – 1.8 million.

$ GHANA'S GDP PER CAPITA (PPP) IS **US$3,500** (2013 ESTIMATE).[5]

4.1.2 CURRENT STATUS OF TELECOM MARKET

General assessment[6]:
Primarily microwave radio relay; wireless local loop has also been installed; the outdated and generally unreliable fixed-line infrastructure is heavily concentrated in Accra.

Domestic telecommunications:
Competition among mobile-cellular providers has spurred growth with a subscribership of more than 80% and rising.

- Approximately 285,000 fixed-lines (2012)[7]

Mobile (cellular) communications:
- 25.618 million subscribers[8] (YE 2012)
- Wireless penetration: 105.8% (YE 2013)[9]
- Main operators[10]:
  - Scancom (MTN) – 54.2%
  - Airtel (formerly Zain/Celtel, Westel) – 15.8%
  - Vodafone (Ghana Telecom) – 15.0%
  - Tigo (Millicom) – 12.0%
  - Globacom (Glo) – 2.5%
  - Expresso – 0.5%

5. CIA World Factbook 2014
6. CIA World Factbook 2014
7. Id.
8. Id.
9. GSMA Intelligence
10. BuddeComm – Ghana – Key Statistics, Regulatory and Fixed-Line Telecoms – Overview.

Internet[11]:

Ghana has one of the more competitive telecom markets in the region. The country was among the first to privatise the incumbent operator, and was a pioneer in developing mobile telephony and data services. It was also among the first on the continent to connect to the internet. Although fixed-line infrastructure requires considerable investment, the dynamic mobile market has ensured that internet penetration is relatively high.

The government has made steady progress in recent years to develop computer literacy and to extend internet availability through a network of public access points. Low user penetration in the early part of the century was largely due to the high cost of services, exacerbated by unreliable networks and poor quality of service. However, in recent years, international connectivity has increased dramatically: a fifth submarine cable which entered into service earlier in 2013 has helped reduce the cost of bandwidth to a tenth of what it was in 2007. Lower pricing has filtered down to consumers, with Ghana Telecom being one of several operators that have invested in national networks to extend broadband availability deeper into rural areas[12].

The mobile market is well served by six competing players. Services based on HSPA technology have helped to extend broadband availability. This has improved the growth potential of m-commerce and m-banking services. MTN Ghana's Mobile Money service is very popular, complemented by its new 'ATM Cash Out' service. The launch of Mobile Number Portability in mid-2011 has also been a catalyst for competition between players, with the number of porting by mid-2013 having increased 21% year-on-year. The time taken to port a number remains very fast by international standards.

4.1.3 FUND BACKGROUND

In March 2003, the Government completed the formulation of a comprehensive national ICT Policy referred to as the Ghana Information and Communication Technology for Accelerated Development (ICT4AD). This roadmap was developed to enrich significantly the economic and cultural well-being of the populace through the rapid development and modernisation of the country using information and communications technologies as the main engine for economic and social development. Under this policy, the Ghana Investment Fund for Telecommunications (GIFTEL) was set up as an agency of the Ministry of Communications to facilitate the provision of connectivity and infrastructure to the Community Information Centres ('CICs') that have been constructed at underserved/unserved and remote areas. GIFTEL was also assigned to provide training to all personal and organisations in charge of managing the CICs. The Electronic Communications Act 775

11. CIA World Factbook 2014
12. http://www.budde.com.au/Research/Ghana-Telecoms-Mobile-Broadband-and-Forecasts.html

of 2008, established the Ghana Investment Fund for Electronic Communications – GIFEC - an independent agency of the Ministry of Communications in charge of managing the Fund. GIFEC is managed by a Secretariat under the direction of the Administrator of the Fund (Chief Executive) and it oversees the implementation of the Fund's projects. Licensed operators (fixed/mobile operators, and recently licensed MNP CRDB service provider) contribute one percent (1%) of their annual revenue. (Net revenue is calculated using gross revenue less VAT, national health insurance levy, communications service tax and interconnect charges).

Other approved sources of GIFEC funding include:

- Monies provided by Parliament.
- Monies that may accrue to the Fund from investment made by the Trustees of the Fund.
- Donations, grants and gifts.
- Any other monies that may become lawfully payable to the Fund.

4.1.4 CURRENT STATUS OF THE FUND

As stated above, GIFTEL was set up to facilitate the provision of universal access to basic telephony to the unserved and underserved communities. Projects that are subsidised through GIFEC are prioritised using the following criteria:

- Provision of basic telephony service to rural areas.
- Support for the establishment of access to value-added services including the introduction of Internet Points-of-Presence (PoPs) in every district.

GIFEC widened the scope of its mandate to include the provision of access to electronic services including ICT, broadcasting, internet, multimedia service and basic telephony, for the unserved and underserved communities.

Disbursement mainly takes the form of non-commercial, but competitive, grants as follows:

- For public telephony projects, internet Point-of-Presence and training contracts by open tender.
- For applications in underserved/unserved rural areas or where support is sought for rural solutions to enhance access to services for public telephony kiosks or tele-centres (at amounts below a certain US$), by direct disbursement based on a business plan demonstrating financial viability or self-sustainability.

Infrastructure subsidies are typically provided to the first entrant in an area and then new entrants share the mast.

The board evaluates proposals for their technical and financial viability. Criteria for selecting towns and villages for the project depend on location, population and socio-economic characteristics e.g., number of schools, health services, economic activities, telecommunications signal availability and geographic obstacles.

Tendering is conducted through the National Competitive Tendering procedures specified in the Public Procurement Act of the Republic of Ghana. Any company that implements projects to provide ICT facilities to underserved areas is eligible to participate.

The Fund is governed through a Board of Trustees: 10 trustees that include representatives from the National Communications Authority (NCA), the Ministry of Communications, the parliamentary select committee on communications, a representative from each licensed telecom operator and the administrator of the fund. The Minister may direct the Trustees of the GIFEC on matters of policy.

4.1.5 WHAT THE FUND HAS ACHIEVED TO DATE

By way of example, GIFEC has overseen the following initiatives:

- Common Telecommunication Facility Project: Commenced 2006: Construction of towers for co-location by telecom operators to extend telecom services to underserved areas. 41 towers were constructed.

- Last Mile Initiative Project: Commenced 2006, in collaboration with USAID/Ghana, pineapple and citrus producing areas are targeted and provided with access to telecommunications/ICT services. One pilot project has been completed at Nsaakye in the Eastern Region. A second project was completed at Georgefields in the Central Region. This is also to be extended to cotton, mango, and rice producing areas.

- CIC Project: GIFEC has been implementing this on behalf of the Ministry of Communications. This entails establishing hybrid, for-profit tele-centres and non-profit community resource centres targeting the general community members, school children, out of school youth, women and women's groups, private businesses, non-governmental organisations and local government authorities. By 2010, 120 CICs were at various stages of completion in 100 districts/municipalities. Under a cost-sharing agreement between the Ministry of Communication and the United Nations Development Programme, 79 CICs have been equipped with ICT equipment, network infrastructure and trained centre managers.

The remaining 70 districts/municipalities were to have at least one CIC as envisioned in GIFEC's strategic plan for 2010-2012.

- Library Connectivity Project: Establishment of ICT-based Mobile Digital-cottages (MD-Cs) and Regional Digital Library Information Centres (RDLICs) in order to promote and facilitate access.

- Rural Pay Phone Project: GIFEC was to provide 12,000 rural payphones to underserved communities during the three year period 2010-2012 (the EQUATEL project) – no further update published at this time.

- Easy Business Connectivity Project: To enhance availability of seed financing on flexible and reasonable terms for entrepreneurs seeking to operate e-powered e-business centres.

- Post Office Connectivity Project: To select ten post offices with the requisite physical infrastructure to enable the delivery of basic Information Technology and telecommunications services in the pilot phase, followed by seventy Post Offices for the Second Phase (2011-2012).

- Disability Employment Project: Implemented by GIFEC and NCPD are the Easy Business Centres for Persons with Disabilities.

- Security Connectivity Project: to establish a state of the art ICT training centre at the Prisons Training School.

- School Connectivity Project: providing educational institutions with high speed computers, printers, scanners, projectors and servers and linking them with internet access. The project started on a pilot basis in 2008. In 2009, GIFEC provided support to 50 schools. By 2010, GIFEC had supported 263 educational and training institutions. The plan was to provide ICT equipment and connectivity to 200 educational, vocational and training institutions in the 2010-2012 period.

- Community Initiative Project: To establish state of the art ICT training centres for rural communities across the country and provide training in computer skills and literacy.

- Fishing Project: In collaboration with the Fisheries Commission and the National Canoe Fishermen Council, to introduce enhanced fishing techniques using state-of-the-art technology to address the fishing needs of the artisan fishermen – was to be rolled out in 2012.

- ICT Capacity Building: 2010-2012, GIFEC planned to fund the provision of basic ICT training to over 12,000 people in the underserved and unserved communities using the CIC facilities.

GIFEC is collaborating with all the major telecommunications operators in the provision of Common Telecommunications Site Facilities in selected areas across the country under the Universal Access to Telecommunications Programme (UATP). The collaboration involves the award of subsidies to willing and eligible telecommunications operators for the provision of Common Telecommunications Site Facilities.

In a recent press release (2014), the CEO of GIFEC stated that as the fund has provided fully equipped and furnished ICT laboratories to 38 colleges of education, 27 technical schools, 10 national youth development institutes, 37 national vocational training centres, 25 community development schools, 62 nursing training schools, 293 senior high and 10 junior high schools as well as three opportunity industrialisation centres and eight farm institutes. In addition, a variety of telecommunications and ICT equipment was provided, amongst others, to the Post Office, the Armed Forces, the Ghana Police and the Ghana Prison System.

4.2 MOZAMBIQUE

4.2.1 COUNTRY OVERVIEW

Mozambique is located in South East Africa and is bordered by Malawi, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. Its terrain is predominately coastal lowland with uplands in the centre, high plateaus in the northwest and mountains in the west. Mozambique spans almost 800,000 sq. km. and has a population of over 23 million with the urban population making up only about 38% of the total population. There are over 1.5 million people living in the capital city of Maputo and over 700,000 in Matola.

$ MOZAMBIQUES'S GDP PER CAPITA (PPP) IS **US$1,200** (2013 ESTIMATE).[13]

4.2.2 CURRENT STATUS OF TELECOM MARKET

General Assessment[14]:
A fair telecommunications system that is shackled with a heavy state presence, lack of competition and high operating costs and charges.

Domestic Telecommunications[15]:
Is characterised by: stagnation in the fixed-line network contrasts with rapid growth in the mobile-cellular network; mobile-cellular coverage now includes all the main cities and key roads, including those from Maputo to the South African and Swaziland borders, the national highway through Gaza and Inhambane provinces, the Beira corridor, and from Nampula to Nacala; extremely low fixed-line teledensity; despite significant growth in mobile-cellular services, tele-density remains low at about 35 per 100 persons.

- Approximately 88,100 fixed-lines (2012)[16]
- State-owned TDM continues to be the sole provider of fixed-line services

Mobile (cellular) communications:
- 8.1M subscribers[17] (YE 2012)
- Wireless market penetration (YE 2013): 48.4%[18]

13. CIA World Factbook 2014
14. Id.
15. Id.
16. Id.
17. Id.
18. GSMA Intelligence

Three Main Operators:

- MCel, the state-owned first provider of mobile services in the country, had approximately 43.5% market share as of YE 2013.
- Vodacom, 85% owned by Vodacom South Africa and operating since 2002, had approximately 32.6% market share as of YE 2013.
- Movitel, owned by a consortium made up of Viettel Telecom (Vietnam) and Mozambique's SPI, was awarded a licence in November 2010 and as of YE 2013 had 24% market share.

Internet[19]:

Prior to the liberalisation of the telecommunications industry, Mozambique was under Portuguese rule and the Portuguese state-owned monopoly, Correios, Telegrafos e Telefones (CTT) was the sole provider of telecommunications in the country. In June 1981, the CTT was dissolved and Telecomunicações de Moçambique E.E. (TDM) was created, becoming the sole provider of services in the country. In 1992, the independent regulator, Instituto Nacional das Communicacoes de Mozambique (INCM), was created and TDM also became a public company. The second mobile licence was awarded to Vodacom in 2002. The Telecommunications Law of 2004 attempted further liberalisation by introducing a competitive regulatory regime.

Although Mozambique is one of the highest growth potential telecom markets in Africa, penetration rates remain relatively low and the main reason for this is that proper infrastructure has not been put in place. Furthermore, the majority of population is low income and close to 50% of the population are illiterate.

4.2.3 FUND BACKGROUND

The Telecommunication Law No. 8 of 21 July 2004, which was based on the 2004 Telecommunications Policy, laid the ground for the regulation of universal service and the establishment of a USF. The fund was administratively established by Decree No. 69 of December 26 2006, which set out details of the regulation of the Universal Access and Service Fund. The collection of funds did not commence until a Ministerial Diploma 79/2007 of 4 July 2007 fixed the annual contribution to be paid by the telecom operators to the USAF. The fund started to collect contributions in 2008.

The Universal Access Service Fund, Fundo do Serviço de Acesso Universal **(FSAU, UASF)** is a separate internal unit and account under the national regulator, Instituto Nacional das Comunicações de Moçambique (INCM) and is managed by the Executive Secretary of the UASF Internal Unit. The Executive Secretary of the UASF reports directly to the Board of Directors of INCM and works in coordination with other departments within the Regulator. The Board of INCM oversees the activities and decisions of the USAF.

19. CIA World Factbook 2014

All licensed and registered entities providing public telecommunications services must contribute 1% of their previous year's net operating income to the UASF. Operators who operate internet cafes are exempt from contribution to the UASF. Other sources of financing can include government contributions and grants from development partners (international donors).

The fund's objectives are to promote investment in the provision of service in rural areas at a fair and affordable price. The short-term targets for telephony are to enable the establishment of a publicly accessible telephone within all locales with more than 1,000 inhabitants as well as within five kilometres of every rural inhabitant. The short-term targets for internet services are to extend internet points of presence and public access to the internet through tele-centres to all District Centres. The services in focus are:

- Providing telephony and internet services
- Public and private internet access and service
- Infrastructure deployment and service provision

Hospitals and schools located in rural areas can also benefit from the fund.

Tenders are awarded through a competitive bid based on the least subsidy requested from qualified bidders. Projects are selected and specified by the USAF / INCM. Operators do not participate in the decision-making process nor do they have any significant influence over the specifications of the projects.

4.2.4 CURRENT STATUS OF THE FUND

The fund is moderately active. It began its operation only relatively recently, in 2008, and has been slow in terms of activity and take-up. So far, it has not been able to achieve operations of scale in extending voice and Internet coverage, which is partly due to the reality of the limited competition in the telecommunications market, with only two active large players up to 2011. In October 2012, after considerable inactivity, the fund announced the allocation of a new project: the provision of service to 50 locales in three lots: North, Central and South Zones but no award detail has been provided to date.

In March 2014, it was announced that FSAU plans for 2014 had been approved. This plan includes implementation of telecom services as well as training in 62 towns in the provinces of Maputo, Gaza, Inhambane, Sofala, Manica, Tete, Zambézia, Nampula, Niassa and Cabo Delgado. No additional detail has been provided at this stage.

The estimated amount held in the account was US$3 million in 2009. No additional information regarding the collection and disbursement of funds has been reported publicly since that time.

4.2.5 WHAT THE FUND HAS ACHIEVED TO DATE

The Universal Access programme began with two pilot projects:

- A telephony pilot project to extend transmission, access networks and UA services to one zone of the country, covering five districts in the province of Zambézia and three districts in the province of Nampula.

- An internet service pilot project to provide an advanced level of service to four District Centres in the provinces of Zambézia and Nampula through the provision of Internet POPs, with a minimum service radius of 5 km. from the District Centre.

A bidding process for the UA pilot projects was launched in February 2007. The telephony tender did not receive any bids and was therefore unsuccessful. The Internet tender was won by the Mozambican broadband wireless operator INTRA Lda.

US$200,000 was disbursed in 2008 for a project entailing the transmission of mobile telephony via satellite, covering 5 km from the centre of the Matchedje district in the north of the country on the Tanzanian border.

By the end of 2009, grants from the World Bank constituted 13% of the overall financing of the fund. The World Bank has financed certain tele-centres pilot projects and one Community Public Internet Access Point project (Public and private Internet access and service).

MCel won a tender in June 2011 to build BTS sites in 14 locales, in a project worth approximately US$4 million. MCel had nine months to build the sites.

4.2.6 OTHER ELEMENTS OF INTEREST

The lack of dynamic competition in the country's telecommunications market, which is still dominated by the state-owned TDM and its subsidiary MCel, combined with Mozambique's challenging geography, with 62% of its population situated in rural, and often remote, poor areas, is not conducive to a rapid increase in voice telephony or Internet coverage, despite the subsidies gradually being offered through the Universal Access Service Fund.

4.3 NIGERIA

4.3.1 COUNTRY OVERVIEW

Nigeria has one of the largest populations in Africa. It is located in Western Africa, bordering Benin, Cameron, Chad and Niger with 853 kilometres of coastline on the Gulf of Guinea. Nigeria consists of a varied terrain with southern lowlands, central hills and plateaus, mountains in the southeast and plains in the north. The population of Nigeria is estimated to be more than 177 million, making it the seventh most populous country in the world. Approximately 50% of the population is urban, with the 50% rural population often situated in remote areas. Nigeria's most populated cities are: Lagos - 10.2 million; Kano - 3.3 million, Ibadan - 2.8 million; Abuja, the capital - 1.9 million; and Kaduna - 1.5 million.

$ NIGERIA'S GDP PER CAPITA (PPP) IS **US$2,800** (2013 ESTIMATE).[20]

4.3.2 CURRENT STATUS OF TELECOM MARKET

General Assessment:
Further expansion and modernisation of the fixed-line telephone network is needed; network quality remains a problem.

Domestic telecommunications is as follows[21]:
The addition of a second fixed-line provider in 2002 resulted in faster growth but subscribership remains only about 1 per 100 persons; mobile-cellular services growing rapidly, in part responding to the shortcomings of the fixed-line network; multiple cellular providers operate nationally with subscribership approaching 60 per 100 persons in 2010.

- Approximately 0.4 M fixed-lines (2012)[22]
- Wireline market penetration[23] (YE 2012): 0.5%
- Main fixed-line operators: Nitel (bankrupt) and Globacom

Mobile (cellular) communications:

- 112.8M subscribers[24] (YE 2012)
- Wireless market penetration YE 2013: 75%[25]
- 4 Main Operators and 4 smaller operators[26]:
  - MTN with approximately 44% market share
  - Glo Mobile, owned by Globacom, with approximately 20% market share
  - Airtel, owned by Bharti Airtel, with approximately 20% market share
  - Etisalat, owned by Etisalat and Mubadala, with approximately 13% market share
  - Others' total market share – 3%

20. CIA World Factbook 2014
21. Id.
22. Id
23. Global Wireless Matrix 1Q2012
24. Id.
25. Id.
26. Id

Internet[27]:

In the past 10 years, there has been a surge in Internet usage and where, in 2000, usage was at 0.1%; by 2011 this was estimated to be at least 44%[28]. Data services have also witnessed strong growth over the past 10 years, Internet users as a percentage of population have grown from 0.3% in 2002 to 28% in 2011. However, Internet penetration at 28% is still relatively low and the growth of the sector is still dependent on investment on infrastructure.[29]

Nigeria started liberalisation of its telecommunications market in 1992 and is today one of the most open telecommunications markets in Africa. The Nigerian Communications Commission (NCC) was established in 1992 as the independent regulatory body for the Nigerian telecommunications industry. The telecommunications policy was put into play in 2000, accelerating a sweeping liberalisation that has led to hundreds of companies providing virtually all kinds of telecom and value-added services.

Nigeria has been dominated by the incumbent state-owned operator Nitel, which has not yet been privatised in spite of three attempts in the past (likely due to its perilous financial state). The addition of a second fixed-line provider, Globacom, in 2002 resulted in faster fixed-line growth but subscribership remains at only about 1%. Today, there are approximately 80 other fixed licensees providing services, mainly through fixed wireless connections. Further expansion and modernisation of the fixed-line telephone network is needed as network quality remains a significant problem.

Although mobile-cellular services have been growing rapidly, the relatively high penetration is as a result of multiple SIM ownership. The growth has slowed down somewhat following the mandatory SIM card registration in 2011.

4.3.3 FUND BACKGROUND

The Nigerian Communications Act of 2003 addresses the concept of universal access and universal service; provides guidance to the Nigerian Communications Commission (NCC) on the development of universal access/service policies; and directs the establishment of a Universal Service Provision Fund. The Nigerian Universal Service Provision Fund (USPF) was established in 2007, as a separate entity in accordance with the 2007 Universal Service and Universal Access Regulations. The fund is managed by the Secretary of the USPF.

The 2007 Regulations also established a USP Board (Chaired by the Minister with representation from the NCC) to supervise and provide broad policy direction for the management of the USPF as well as to aid the USP Fund managers. It has the authority to appoint and remove the USP Fund managers and auditors in consultation with the NCC. The Board is entrusted with

27. CIA World Factbook 2014
28. Insights to the African Telecom Market 2011: Analysis, Forecasts and Commentary, by TelecomsMarketResearch.com, in association with Buddecomm, August 2011
29. Universal Service Provision Fund – Strategic Management Plan (2013-2017) June 2012)

approving standing orders to establish and regulate activities of the USP fund managers, as well as approve all processes, procedures, guidelines and decisions necessary to implement the regulations. The USP fund managers report on a quarterly basis to the USP Board and the USP Secretariat on the status of the fund, including a report detailing the financial situation and performance of the fund.

The NCC plays the following roles in relation to the USPF:

- Considers, designs and determines a system which shall promote the widespread availability and usage of network services and services to unserved and underserved parts of the country.

- Is represented on the USPF Board (USPF Secretariat is located within the premises of the NCC Head Office in Abuja) and is consulted on the appointment of USPF managers.

- Supports the Fund on staffing.

- Ensures that the USPF is at all times totally separated from the Commission's Fund and transparently maintained.

- Develops regulations regarding contributions by licensees, under the NCA, 2003, to the USPF and any other matters related or incidental to the Universal Service Provision and the establishment and operation of the USPF.

Both the Act and the Regulations provide that the USP Fund shall be audited each financial year. The Act provides that independent auditors shall be appointed by the Board and that the auditor's report shall be presented to the National Assembly and published. The USP Board is required to prepare and submit an annual report to the National Assembly, through the President, no later than six months after the end of each financial year. In addition, the USP Fund must maintain a website and include posting of the Fund's quarterly reports, the USP Board annual reports and projects underway.

Before the creation of the USPF in 2007, an Annual Operating Levy (AOL), required by licence conditions, had been collected by the NCC. Based on the 2007 Regulation, the NCC makes financial contributions to the USPF based on a portion of the AOL paid to the Commission by licensees. Operators continue to submit an AOL of 2.5% of net operating revenues to the NCC on a quarterly basis. The NCC, in turn, contributes 40% of the AOL to the USPF for its activities. The 2007 Regulations provide that the initial amount of the USP Contributions shall be equal to one per cent of net revenues of the licensees from which the NCC collects annual levies (this is currently the 40% of the 2.5% AOL). NCC has the discretion to increase or decrease the contribution to the USPF upon consideration of the USPF operating expenses and based on recommendations made by USPF.

The USPF is also supposed to be funded from other sources:

- Such monies as may be specifically appropriated to the USPF from time to time by the National Assembly.

- Gifts, loans aids and such other assets that may from time to time specifically accrue to the USPF.

However, sector contributions have made up most of the Fund's contributions.
The objective of the 2003 Communications Act is to encourage the installation of network facilities and the provision of network services and applications to institutions in unserved and underserved areas or for underserved groups. The Secretariat determines if the USP Fund is to be used to finance the maintenance of existing services and network facilities for areas or only the provision of new networks and services.

According to the 2007 Regulations, the priorities of the Fund are to provide financial support for ensuring universal access and universal service to specific areas defined as follows:

- Unserved areas, which are geographic areas where there is no level of access currently available.

- Underserved areas, which are geographic areas where some level of access may currently be available, but not across the entire regional segment.

- Underserved groups within a community, which refers to a designated population segment that shares a common set of characteristics and, unlike the rest of the community, does not have universal access.

Universal Service covers the following services:

- Individual mobile-cellular service
- Public mobile payphone service
- Broadband
- Tele-centres
- Schools (primary, secondary post-secondary)
- Health centres
- Emergency services
- Special services for persons with disabilities and elder persons
- Community centres
- Government offices

The USP Secretariat is required to undertake an analysis to determine formally where fund money should be directed and, specifically, the service scope to be applied.

In the allocation process, the USPF shall use competitive selection processes, which may include minimum subsidy auctions or such other processes designed by the USP Secretariat in accordance with the Regulations. The USPF has used the following methods:

- Competitive, combination quality and cost selection.

- Competitive, least subsidy requested from qualified bidders.

- Proposal by eligible candidates and evaluation by the USPF.

The industry is invited to participate in the consultation process on the RFI/RFP but the final decision on projects is made by the USPF board on the advice of the NCC.

4.3.4 CURRENT STATUS OF THE FUND

The USPF is operational and active. Previously, the fund has four programmes, namely the Universal Access Programme, Universal Coverage Programme, Universal Service Programme and ICT for Development Programme. The latter included issues such as applications, content, software and training, unlike the Universal Access and Service Programmes, which deal primarily with funding of services and networks.

Until 2011, the main focus of the fund had been on BTS projects covering unserved and underserved areas, providing up to 25% subsidies for tower building.

The latest published bids (published on the USPF website on 26 September 2011) included:

- Provision of Backbone Transmission Infrastructure (BTRAIN) Project

- Construction of Passive Telecommunications Infrastructure for Purpose of Co-Location of Telecommunication Companies in Rural/ Unserved Communities

- Establishment of Base Transceiver Stations (BTS) in (Rural) Unserved/Underserved Areas of the Federation[30]

30. http://uspf.gov.ng/index.htm

The current amount in the USPF account is not publicly available. The reported balance in 2009, to be carried forward to 2010, was Naira NGN 23.6 B[31] (US$145 million).

Notwithstanding the ongoing activities of the fund, the fund administrators, as well as the new Minister of Communications, appear to recognise that the fund is not performing as it should and that some major adjustments are required. To that end, they are currently (as of May 2012)[32] in the process of redefining how the Fund should operate.

4.3.5 WHAT THE FUND HAS ACHIEVED TO DATE

Between 2009 and 2012, the fund focused on:

- USPF BTS Support Project
- Community Communications Centre
- Computer for the Girl Child
- Large Scale ICT Projects
- ICT for All Nigerians Project
- Accelerated Mobile Phone Expansion Project
- Backbone Infrastructure Project
- School and University Access Projects to Digital Lifestyles

As mentioned previously, the main focus of the fund was the BTS Support Project for unserved and underserved areas. This particular focus has been quite successful, as operators have leveraged on the initiative to extend services to locations considered to be commercially disadvantageous. Major mobile operators participated in the BTS projects, receiving a subsidy of 25% of the cost of building a base station (approximately N 8,897,040.00 – US$54,300).

The other projects that delivered some results have been the School and University Access to Digital Lifestyle Project, which brought internet connections, expected to improve learning and research by the teachers and students, to Federal Universities; and the Computer for the Girl Child project facilitating access to ICT by pupils in secondary schools across the country.

The USPF 2007-2011 Strategic Plan cited these types of projects eligible for USPF financing:

- Large scale ICT projects.
- Community communications centres (CCC) projects.
- ICTs for all Nigerians project.
- Accelerated mobile phone expansion project.
- Backbone infrastructure project.
- Enabling environment projects.
- School and university access projects for digital lifestyle.
- Institutional development projects.

In the 'Approved Strategic Management Plan (2013 – 2017) for the Universal Service Provision Fund' published in June 2013), the following projects were identified with more substantive information provided:

- Community communications centres (CCC) projects: 224 CCCs established across the six geopolitical zones, achieving 77% of the set target (291).

- Accelerated mobile phone expansion project: The first target was to have 490 Base Transceiver Stations by 2011. The USPF awarded subsidies for 74 BTS, 62 of which have been implemented while 12 are still in progress. This represents 12% of the set target. The second target was to encourage/subsidise the construction of shared telecom infrastructure for co-location of telecom operators. The target was 150 CIPs. The USPF subsidised the establishment of 104 CIPs achieving 69% of the planned target.

- Backbone infrastructure project: (the BTRAIN project) aimed at accelerating through subsidies the build-out of backbone transmission infrastructure to all local government areas in Nigeria. The target was to achieve 1000 km. of fibre backbone infrastructure. The USPF

31. 2009 Annual Report – last annual report that has been published on the USPF website
32. http://www.piftikhar.com/2012/05/my-first-visit-to-nigeria/

has recently concluded that the process for the BTRAIN Pilot Project achieved the deployment of 500 km. of fibre at the end of 2012.

- School and university access projects for digital lifestyle (The School Access project (SAP) aimed at providing public schools (1,858 schools targeted) with ICT hardware and funding subscriptions for broadband internet for at least one year. The SAP has been rolled out to 766 government schools representing 41% achievement of set targets. The Tertiary Institution Access Project (TiAP) aimed at providing tertiary institutions (374 institutions targeted) with ICT hardware and funding subscriptions for broadband internet for at least one year. The TiAP has been rolled out to 193 of the institutions targeted.

- Institutional development projects (The E-Library project was to provide internet access to public libraries in underserved/ unserved areas. There was no specific target for the project. At the end of 2012, the E-library has been deployed to 74 libraries across the country).

- Rural Broadband Initiative (RUBI) project to facilitate the roll out of broadband services to underserved and unserved areas. The target was to establish 109 RUBI initiatives across senatorial zones in the country. The project has been rolled out to 18 areas to facilitate access to high speed internet.

4.3.6 OTHER ELEMENTS OF INTEREST

The highly competitive telecommunications market is the main reason behind the achievement of the country's current coverage levels rather than the fund initiatives. Much of the remaining addressable market is in the country's rural areas where network rollouts and operations are expensive mainly due to the poor infrastructure in place, lack of reliable electricity, security risks and unreliability of the incumbent's fixed network. Given that rural penetration in Nigeria is still low, with over 40 M inhabitants still residing in rural areas, there is a need to develop more complex incentives that will address the above factors and help to decrease operators' capital and operating expenses.

4.4

SOUTH AFRICA

4.4.1 COUNTRY OVERVIEW

The Republic of South Africa, generally referred to as South Africa, covers a massive land area of over 1 million sq. km. The country is situated at the southern tip of the African continent and borders Botswana, Lesotho, Mozambique, Namibia, Swaziland and Zimbabwe. South Africa's population is estimated to be over 48 million. Urban population accounts for over 60% of the population. Population in the major cities is: 3.6 million in Johannesburg; 3.3 million in Cape Town; 3.1 million in Ekurhuleni; 2.8 million in Durban; and 1.4 million in Pretoria, the capital city[33].

$ SOUTH AFRICA'S GDP PER CAPITA (PPP) IS **US$11,500** (2013 ESTIMATE).[34]

4.4.2 CURRENT STATUS OF TELECOM MARKET

General Assessment[35]:
The system is the best developed and most modern in Africa.

Domestic Telecommunications:
Combined fixed-line and mobile-cellular tele-density is roughly 110 telephones per 100 persons; consists of carrier-equipped open-wire lines, coaxial cables, microwave radio relay links, fiber-optic cable, radiotelephone communication stations, and wireless local loops;

- Approximately 4.0 M fixed-lines (YE 2012)[36]
- Wireline market penetration[37] (YE 2011): 9.0%
- One main fixed-line operator: Telkom South Africa

Mobile (cellular) communications:

- 68.4 million subscribers[38] (YE 2012)
- Wireless market penetration YE 2013: 138.0%[39]
- Three Main Operators[40]:
  - Vodacom with approximately 44% market share
  - MTN, with approximately 35% market share
  - Cell-C, owned by Oger Telecom, with approximately 18% market share
  - Telkom Mobile, with approximately 2.3% market share

33. CIA World Factbook 2014
34. Id.
35. Id.
36. CIA World Factbook 2014
37. Global Wireless Matrix 1Q2012
38. Id.
39. Id.
40. Id

Internet[41]:

The South African telecommunications market is one of the most modern and best developed markets in Africa. In 1996, the Telecommunications Act was amended and formed the basis of the market liberalisation and privatisation of the state-owned fixed-line provider Telkom. The Independent Communications Authority of South Africa (ICASA) was set up in 2000 and has been tasked with the administration of government policy, issuing licences, frequency management and the implementation of the Telecommunications Act. The Electronic Communications Act of 2005 introduced a converged unified licensing regime and witnessed the surge of hundreds of alternative service providers.

Today, there are fixed-lines provided mainly by Telkom, the state-owned operator who had a monopoly through to 2006. The second fixed-line operator, Neotel, majority-owned by India's Tata Communications, has only recently started to pick up and currently boosts with a market share below 15%.

The government is making efforts to enhance the broadband offering through the newly created Broadband InfraCo, a national infrastructure company, which is to provide cheap backbone network capacity to service providers, fibre to the home. However, this initiative has been very slow to take off. However, hopes are put into 3G mobile broadband which is slowly surging ahead of DSL.

4.4.3 FUND BACKGROUND

The original Universal Service Access Fund (USAF) was originally set up in 1997 in accordance with the 1996 Telecommunications Act, as amended in 2001, and the associated USAF Regulations of 1999. The Electronic Communications Act of 2005 (ECA) established the Universal Service and Access Agency of South Africa (USAASA), a separate legal entity responsible for promoting universal service and access in the country, to administer the USAF. The Universal Service and Access Fund Contributions Regulation (Government Gazette No. 34010 of 10 February 2011) prescribe the annual contributions to be paid to the USAF. The Minister of Communications appoints the USAASA Board, who retains the full and effective control and monitors the executive management and decisions of the Agency.

However due to the widespread allegations of corruption and mismanagement, senior members of the fund management team were suspended in September 2011, and a forensic audit was ordered. Subsequently, some of the suspended members under investigation resigned; the Minister appointed a new board in September 2012 and conducted a search for a new CEO.

USAASA is funded by contributions from licensed operators of electronic communication services and networks. Broadcasting licensees also contribute to the Fund or offset the contribution against

41. CIA World Factbook 2014

a contribution to a broadcasting sector Media Development and Diversity Fund ("MDDA"). The NRA, ICASA collects the contributions from licensees and sends them to the National Treasury. ICASA determines the basis of operators' contributions, which may not exceed one per cent of their annual turnover. Currently, based on the 2011 USAF Contributions Regulation, the contribution is set at 0.2% of annual turnover, paid on an annual basis, which is defined as total revenue from licensed activity, less service provider discounts, agency fees, interconnection, facilities leasing charges, government grants and subsidies.
Section 88 of the ECA stipulates that the fund should be used exclusively for payment of subsidies in the following manner:

- To assist needy persons towards the cost of provision to, or the use by, them of broadcasting and electronic communications services.

- To public schools and public Further Education and Training (FET) Institutions for the procurement of broadcasting and electronic communication services and access to electronic communication networks.

- For the establishment and operation of broadcasting services and for the establishment and operation, including training of and the payment of allowances to personnel, of centres where access to electronic communication networks can be obtained.

- To any broadcasting service licensee and electronic communications network service licensee for the purpose of financing the construction or extension of electronic communications networks in under-serviced areas.

Projects are awarded through a competitive bid. USAASA manages the funds and identifies suitable projects in terms of the requirements of ECA that are eligible for a subsidy.

One of the main areas has been to provide incentives to electronic communications network service licensees to construct operate and maintain electronic communications networks in underserved areas through the award of project grants. For the disbursement of Universal Service Funds under this approach, USAASA applies a range of criteria including:

- The scope of the electronic communications network service licensee's proposal, including the electronic communications network proposed for construction in the underserved area and the specific technologies proposed;

- Any electronic communications services the electronic communications network service licensee proposes to offer in terms of its electronic communications service licence or other licence held by the electronic communications network service licensee; and

- Terms and conditions relating to any proposed services, including wholesale and retail pricing, considering the lack of competitive electronic communications networks and services in the targeted under-serviced area.

4.4.4 CURRENT STATUS OF THE FUND

The USAASA is currently active after a hiatus period whilst a forensic audit was conducted and the fund management was changed in its entirety. During that time a detailed USF operating and funding management manual was established. The fund is now focusing on four key areas or initiatives[42] as follows:

A. Rapid deployment

This programme is intended to establish 30 new school cyber labs connected to the internet. USAASA has invited licensed service providers through a competitive bidding process to connect schools in these under-serviced areas.

B. Connectivity

This programme seeks to ensure 260 access centres including school cyber labs and tele-centres are connected to subsidised internet.

C. Broadband networks

Two under-serviced municipalities in Emalahleni Local Municipality in the Eastern Cape and Msinga Local Municipality in KwaZulu-Natal are the recipients of the broadband network project. The stakeholder engagement for both uMsinga Local Municipality in KwaZulu-Natal and Emalahleni Local Municipality in the Eastern Cape was finalised. Additionally, MTN was appointed to commence the rollout and operate the backbone network during the fourth quarter of 2014. This project entails connecting three schools to be chosen by each municipality. A hospital and municipal offices will also be connected and Customer Premises Equipment (CPE) such as the 3G router will also be supplied.

In order to further move ahead the broadband initiatives, the fund is suggesting a three phase implementation approach:

- **Phase 1:** Construct the network to cover the main towns first, providing services to Government, local business and households in those areas.
- **Phase 2:** Extend the network to reach immediate villages around the main towns.
- **Phase 3:** Extend the network to reach all other villages and farms throughout the municipality.

D. Digital Terrestrial Television

The implementation of the Digital Terrestrial Television (DTT) programme is hampered by the legal challenges to the Minister of Communications due to the implementation of the conditional access control imposed on the subsidised set-top boxes for digital terrestrial broadcasting in South Africa through the Broadcasting Digital Migration Policy (Government Gazette No. 31408 dated 8 September 2008).

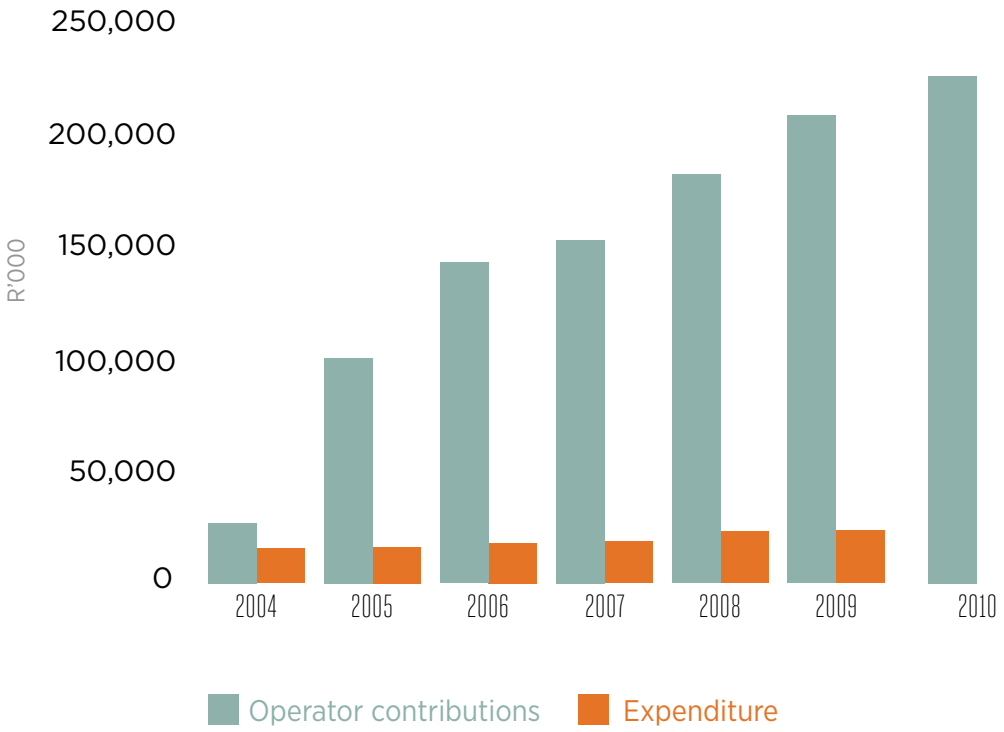
The slow pace on the DTT project, which accounts for 84% of the USAF, budget impacts on USAASA's responsibility area on this Programme. USAASA is dependent on the Department of Communications to complete the process of appointing the manufacturers of the set-top boxes (STBs) for it to implement subsidy disbursements. The subsidies for the DTT project are intended for subsidisation of 4.5 million poor households who would find it very difficult to afford STBs.

42. USAASA's Status Update of the Universal Service and Access Fund Operational Activities March 2014

The total amount currently held in the USAF is not publically available and various estimates continue to exist. According to the USAASA 2009/2010 Annual Report, the latest published surplus for year 2010 was R15.4M (US$1.8 million). Estimated operator contributions in 2010 from other sources were in the neighbourhood of R225.0M (US$27.1 million).

The following graph shows one assessment of the relationship between the levels of operator contributions received versus the level of disbursements achieved by the Fund[43]. This translates into an estimated amount of between US$27.4 million and US$30.4 million.

OPERATOR CONTRIBUTORS VERSUS USAASA EXPENDITURE



Source: Lirneasia

43. The relevance of public access services and universal service obligations in light of increased mobile market penetration – Dr. Kammy Naidoo Lirneasia November 2011

Since 2010, the overall Governmental Policy on Universal Service and Access Obligation has been under review and subject to a consultation process published by ICASA on 17 August, 2010. At the heart of the debate is whether South Africa should retain a system of imposing Universal Service and Access Obligations on licensees or whether it should adopt a purely competitive process using funds from the USAF and letting operators voluntarily assume obligations through selected subsidised projects. Based on the latest information available by the newly rejuvenated USAASA, available funds appear to be rather limited as per this recent report below[44]. It is also important to note that while this reflects current status, there is no indication regarding what happened to the previously collected funds.

	ACCRUAL		
FINANCIAL PERFORMANCE DATA	2012/13	2013/14	2014/15
R. THOUSANDS	MEDIUM - TERM ESTIMATE		
REVENUE			
INTEREST	112	124	136
DEPARTMENT OF COMMUNICATIONS	273,977	289,046	291,988
TOTAL REVENUE	274,089	289,170	292,126
EXPENSES			
ADVERTISING	-	-	-
AUDIT COSTS	**762**	**717**	**857**
BANK CHARGES	**27**	**29**	**31**
CONTRACTORS	-	-	-
RESEARCH AND DEVELOPMENT	-	-	-
TRAVEL AND SUBSISTENCE	2,165	2,539	2,693
EXPENSES			
STRATEGY DOCUMENT & MANUAL	2,850	-	-
HANDOVER OF EAC			
E-CONNECTIVITY	11,400	9,310	8,550
RAPID DEPLOYMENT	10,000	15,000	20,000
STB SUBSIDIES	230,000	240,000	240,000
BROADBAND INFRASTRUCTURE	16,885	21,575	19,995
TOTAL EXPENSES	274,089	289,170	292,126

44. USAASA Strategic Plan 2012-2015 – Final as published in the website

4.4.5 WHAT THE FUND HAS ACHIEVED TO DATE

The USAASA has been active with mixed results. It started its activity, including funds disbursement in 1998. Historically, USAASA has been seen as a 'Tele-centre' Agency and involved only in small initiatives such as Tele-centre and Cyber lab projects and the funding of Under-serviced Area licensees. These did not achieve the penetration levels expected.[45]

Under-serviced Area Licences
In November 2001, amendments to the Telecommunications Act created a new licence category, the "under-serviced area licence" (USAL). The goal was to stir the growth of telecommunications services in underserved areas, which were defined as areas with less than 5% tele-density during a period of three years. Under the scheme, certain small and medium-sized enterprises were allowed to apply for licences to provide telecommunications services in these underserved areas. The USAL allowed them to offer services such as VoIP, fixed mobile service and public pay telephones. USAL licensees were nevertheless required to transport their long distance traffic through the trunk networks of any of the national fixed and mobile operators and, internationally, through three designated international gateway licensees.

A fixed subsidy of R15 million (approximately US$2 million) was given to each of the seven winning bidders for the Under-Serviced Area Licence (USAL), to be used on infrastructure development for a period of three years[46]. USALs have not proven to be financially viable. After in-depth review, it was decided that funding be suspended until a sustainable model on the business case, regulatory, financial support and policy was developed and in 2007, the government directed ICASA to merge USALs and issue one Provincial Under-Serviced Area Network Operator (PUSANO) licence in provinces where there is more than one licence. The ECA obliged the USALs to convert their licences into one of the new categories established under the Act. Of the seven originally USALS that were licensed, only one was still providing retail services by the end of 2009.

Tele-centres and Cyber-labs:
Tele-centres are intended to provide communities with a wide range of services including computer services, telephones, fax, Internet access, email, typing, printing and photocopying and use of video facilities such as video recorders and DVD players. School Cyber labs are expected to provide ICT services and computer literacy training to the school community. The school owns the Cyber lab and is responsible for all maintenance costs except Internet connectivity for the first 12 months. The intention is that, thereafter, the school becomes completely responsible for the Cyber lab. The USAASA is responsible for the installation of network points, airconditioners and provides security for the facility.

The USAF was intended to provide support for the development of a Community Digital Hub. This is a concept of community centres deployed in rural areas and is an advanced ICT facility to provide technical support to remote Tele-centres and Cyber labs. The support provided by the hub includes content development and delivery of various applications (such as e-government services, e-education, e-health, e-business development, e-agriculture, etc.).

However, projects have been delayed, roll-out has been inefficient and tele-centres and cyber labs have not been conceptualised to remain sustainable and self-efficient. In its 2008/2009 Annual Report, USAASA reported that it had spent more than R150 million (US$17.9 million) over the previous few years in the rehabilitation and maintenance of these facilities. The assessment showed that access centres face various challenges including lack of technical and management skills, difficult sustainability, shortage of resources, governance, public awareness and poor uptake and usage of the facility.

45. USAASA 2009/2010 Annual Report
46. USAASA 2009/2010 Annual Report

In 2009, USAASA initiated a strategy for the handover of community ICT Access Centres and school Cyber labs to the relevant groups and the Department of Education. The handover was delayed as a result of longer procurement processes. By the end of 2010, only the priority projects were completed (audit of 154 Access Centres, rehabilitation of obsolete equipment and handover of 100 schools and 38 Access Centres).

During the course of 2010, USAF engaged in the following:

- Disbursement of Internet access subsidies to facilitate the provision of Internet connectivity to school Cyber labs and Community Access Centres at e-rated[47] or (50% discounted) prices.

- Tenders for the rapid deployment of new community Access Centres in rural and under-serviced areas (with a target of 100 centres) have been put on hold and delayed.

- The USAF also undertook a project to develop a Universal Service and Access Fund Manual setting down procedures and to provide guidelines to beneficiaries on how to access the fund.

- Subsidies via USAF were provided to 18 Further Education and Training (FET) colleges in 2008–2010 to facilitate connectivity.

Overall, tenders have been designed for and subsidies allocated to medium and small size licensees (companies such as Brentlana Technologies, Wi-Link Technologies, Annix Telecomms or Solaria Technologies). For example, by 2009, the USAF had provided R38.4 M (US$4.6 million)[48] to small and medium black economic empowerment enterprises of which R7 M was spent on women-owned enterprises. The four major operators (MTN, Vodacom, Cell-C and Telkom) do not appear to have benefited from financing by the USAF.

South Africa's success in achieving high population coverage and penetration is due to factors such as a liberalised and competitive mobile telecommunications market since 1996, original roll-out and public access obligations in the mobile licences and high density population concentrations with mid-level per capita income.

Major operators were obliged to provision a high number of Community Service Telephones in Under-Serviced Areas under their original Mobile-Cellular Telephone Service ("MCTS") licences issued under the Telecommunications Act, 1996 (subsequently substituted or converted into EC Act licences). In exchange for the 3G spectrum, obligations were imposed to provide Internet access to institutions of persons with disabilities, plus terminal equipment to facilitate such access, and Internet connectivity to thousands of public schools located in rural, underserved and non-serviced areas, plus terminal equipment to facilitate such access. In exchange for the right to the 1800 MHz spectrum, operators were mandated to provide and distribute millions of SIM card connection packages in under-serviced areas.

47. Special discounted prices for Internet connectivity offered to certain public institutions
48. USAASA 2009/2010 Annual Report

Based on the latest initiatives now that the fund has been re-activated but the expenditures have been modest to date, the current results are as follows:

PROJECT NAME	ANNUAL TARGET	ORIGIONAL BUDGET	ROLLOVER AMOUNT	NEW TARGET	PROGRESS	EXPENDITURE TO DATE
RAPID DEPLOYMENT	30 schools	R15.18M	R4,374M	40 schools + 1 centre for disability	39 schools completed	**R14.6M (US$1.4 million)**
CONNECTIVITY	260 centres	R6.4M	R4,832M	281 centres	279 connected	**R5.6M (US$0.5 million)**
BROADBAND	2 municipalities	R21M	–	–	MTN appointed and started work. Payment will be in tranches	**Nil**
DTT	300,000 STBs	R240M	R450M	–	None	**Nil**

4.5

UGANDA

4.5.1 COUNTRY OVERVIEW

A landlocked country in East-Central Africa, Uganda borders the Democratic Republic of the Congo, Kenya, Rwanda, South Sudan and Tanzania. Its area is made up of mainly plateaus with a rim of mountains and many lakes and rivers. Uganda's estimated 35.9 million population is mainly rural with only 13% living in cities, out of which Kampala, the capital, has 1.5 million inhabitants.

$ UGANDA'S GDP PER CAPITA (PPP) IS **US$1,500** (2013 ESTIMATE).[49]

4.5.2 CURRENT STATUS OF TELECOM MARKET

General Assessment[50]:
Mobile-cellular service is increasing rapidly, but the number of main lines is still deficient; work underway on a national backbone information and communications technology infrastructure; international phone networks and Internet connectivity provided through satellite and VSAT applications

Domestic Telecommunications[51]:
Intercity traffic by wire, microwave radio relay, and radiotelephone communication stations, fixed and mobile-cellular systems for short-range traffic; mobile-cellular tele-density about 40 per 100 persons in 2010.

- Approximately 315,000 fixed-lines (2012)
- Two main fixed-line operators: UTL and MTN

Mobile (cellular) communications:

- 14.4 million subscribers[52] (YE 2012)
- Market penetration YE 2013: 51%[53]
- Five Main Operators
  - MTN Uganda, with slightly more than 45% market share
  - Airtel, with 40% market share
  - UT, with 11%
  - The balance is divided between Orange and others

49. CIA World Factbook 2014
50. Id
51. Id
52. CIA World Factbook 2014
53. GSMA Intelligence
54. CIA World Factbook 2014

Internet[54]:

Although Uganda is one of the smallest markets in the region, it is also one of the fastest growing markets in Africa. It started to liberalise its telecommunications market in the early 1990s when Celtel (now Airtel), as the first mobile company in Uganda, obtained a Cellular Telecommunications Operator licence in 1993 and launched service in 1995. The Uganda Communications Commission (UCC) was established in 1998 by the Uganda Communications Act (Cap 106 Laws of Uganda) to facilitate and enable the development of a modern communications sector and infrastructure in the country. MTN entered the market in 1998, followed by Uganda Telecom (UTL) in 2001, Warid Telecom in 2008 and HiTS Telecom, in which France Telecom's mobile unit Orange bought a majority stake in 2009.[55]

Despite the intensified competition leading to price wars, which have accelerated subscriber growth, the market penetration is still well below the African average.

4.5.3 FUND BACKGROUND

The 1997 Uganda Communications Act outlined the principles of universal service and envisaged financing through a Universal Service Fund. These principles were then incorporated in the first Rural Communications Development Fund Policy of 2001. The current Rural Communications Development Fund (RCDF) was established under the Communications (Establishment and Management of the Rural Communications Development Fund) Instrument, 2002, and has been fully operational since 2003. The 2005 Communications (Universal Service) Regulations outline a comprehensive universal service policy for Uganda.[56] The regulations noted that the Uganda Communications Commission (UCC) was to support the provision of universal service obligations by the operators, and that the UCC shall implement the universal service obligations through the RCDF.

The Rural Communications Development Fund is an internal unit and account managed by the Manager of the RCDF under the UCC who is responsible for the establishment and overall administration of the fund. The UCC appoints a Board that consists of representatives of the UCC, including the Chairman of the Board and the Executive Director, the Uganda Postal sector, Uganda Consumer Protection Association, Uganda Institution of Professional Engineers, the Uganda Institute of Bankers and the Ministry of ICT. The Board is responsible for the execution of the strategy for the RCDF. The Board reports to the UCC and manages the Fund in accordance with UCC's approved policies and procedures. UCC also appoints a RCDF manager and allocates its staff. The key role of the RCDF manager and his unit

55. Insights to the African telecom market 2011: Analysis, forecasts and commentary, by TelecomsMarketResearch.com, in association with Buddecomm, August 2011
56. The Communications (Universal Service) Regulations of 2005
57. RCDF Statement 2011

is to manage the RCDF programme and activities, to implement and administer the programme and the related activities and to manage the finances of the RCDF.

One of the main objectives of UCC is the enabling of Universal Access (UA) to communications in Uganda. Prior to liberalisation of the communications sector, Universal Service Obligations were included in licences of operators and service providers for areas and services that were not economically viable. Under the liberalised environment, operators are generally free to choose areas that they operate in. These areas are mainly determined by their economic viability, while those areas that they chose not to operate in become underserved or unserved.[57]

The universal service obligation is defined in the 2005 Regulations as a minimum set of services of specified quality, which is available to all users independent of their geographical location at an affordable price, in particular:

- Connection to a fixed communication network able to support voice telephony, fax and data transmission;
- Reasonable geographic access to public call boxes throughout Uganda;
- Ability of consumers to access emergency and free services, operator assistance and directory enquiry services;
- Ability to meet the needs of people with disabilities;
- Delivery of affordable basic communication services to all customers upon reasonable request;
- Provide customers with disabilities with the same or equivalent services as all other customers so as to have access to the same level of universal service; and
- Reasonable geographic access to basic postal services across the country; as well as reasonable levels of access to payphones for all in Uganda on an equitable basis.

Currently all operators, including the postal service couriers and ISPs, contribute 1%[58] of their Gross Annual Revenue, net of interconnection payments, to the RCDF. The RCDF may also receive financing appropriated by the Uganda Parliament through the national budget, as well as donations and grants from development partners, and gifts and loans deemed acceptable to the Minister of ICT and the Finance Minister. The World Bank has provided about 30% of the financing through its grants[59].

According to the 2005 Regulations, the UCC can designate an operator as a universal service provider who would then have an obligation to provide universal services on a nation-wide basis or in a specified universal service area and ought to establish a mechanism for sharing the net costs of supporting the universal service obligation (i.e., difference between the net cost of operating for an operator with the universal service obligation and operating without the universal service obligation) such that the universal service obligation does not represent an unfair burden. UCC determines subsidies for each universal service area with respect to each service obligation.

The RCDF develops appropriate ICT projects for the underserved and unserved areas. RCDF then forms Public and/or Private Partnerships to implement those projects. Normally, the RCDF contributes technical support and a subsidy into the partnership. The partner contributes ownership and financial support amongst other things. The partners are selected on a competitive basis in accordance with provisions of the Public Procurement and Disposal Act of 2003 and the projects are normally operated for a period of five years.[60] Operators can access

58. UCC Determination based on the 2005 Communications (Universal Service) Regulations outline a comprehesive universal service policy for Uganda
59. ICT Regulation Toolkit, www.ictregulationtoolkit.org/en
60. RCDF Statement 2011

the funds through a competitive public open bidding process when a request for a bid is issued by the RCDF. The bids are awarded mainly based on the least subsidy requested from qualified bidders. Although operators are not included in the governance structure of the RCDF, in practice, the project selection is shared with operators, e.g., for roll out requirements, operators can indicate areas that are already covered or that they plan to cover.

4.5.4 CURRENT STATUS OF THE FUND

The fund has been very active and is often cited as an example of a well-functioning Fund in the emerging markets. Building on the success realised in Phase I of the RCDF Policy (2003-2009), Phase II of the RCDF Policy (2010-14) is now underway and aims to increase the scope of projects implemented under RCDF Policy I: enhance internet connectivity across the country and the delivery of content using ICT throughout the country. This includes programmes such as ICT training centres and the internet cafes programme.

The actual fund's expenditure on RCDF projects for the period 2002/3 to 2010/11 has been approximately US$40 million (including the provision for 2010/2011).[61] This represents approximately 85% of the total Fund's revenue. As previously stated, the World Bank financing comprises about 30% of the total financing.

According to the latest RCDF report, its budget for 2014, including rollover from the previous year is US$20 million. This budget is intended to address the following:

- 3 DTTB regional sites
- Integration of ICT into 30 health facilities
- Integration of ICT into 120 schools expected to include some private schools
- Community ICT training in 50 schools expected to train about 15,000 people across the country
- Virtual laboratory science content installation in 250 schools
- Providing internet connectivity including satellite connectivity to about 240 projects across the country
- Extending both voice and data networks in northern Uganda under the ERT/ICT, World Bank funded programme.

4.5.5 WHAT THE FUND HAS ACHIEVED TO DATE

The RCDF has financed projects to provide telephony, Internet access, Internet POPs, and Internet exchange points and content development. Funds have been available for areas where service provision is not feasible or unlikely to be provided by the operators in the next one to two years without a subsidy. In fact, 154 underserved sub counties of Uganda have been identified and divided into three universal access areas. Between 2003 and 2009, the focus of RCDF projects was on ensuring access to ICT services for the underserved areas. Subsequently, the RCDF project focus shifted to ensuring usage of ICT services.

Approximately 5,482 projects had been accomplished by the end of 2010/11[62]:

- 106 Internet cafes
- 175 Health ICT facilities
- 78 ICT training centres
- 76 Internet POPs
- 13 multi-purpose community tele-centres (MCTs)
- 45 postal tele-centres
- 708 school ICT labs
- 78 web portals
- 4,099 public pay phones
- 90 GSM sites
- 6 content development initiatives
- 2 local governance (provision of ICT to resident District Commissioners and constituency Members of Parliament)
- 6 unique projects (establishment of ICT labs in universities and tertiary Institutions of learning in Uganda)

61. RCDF Annual Report 2009/2010
62. RCDF Annual Report 2009/2010

In the educational sector, there were 823 ICT laboratories completed, with 76 more laboratories under way; 335 internet connections completed, with 488 more under way and 665 teachers re-trained, with 135 under way by March 2011. By March 2012, there were 252 completed solar powered ICT laboratories for schools and 195 under installation; and 252 completed grid powered ICT laboratories and 72 under installation.

Funds have been distributed to UTL, MTN, some Internet Service Providers and independent companies through competitive bidding. For example between 2003 and 2011, some 174 Internet connectivity facilities have been established by UCC/RCDF in partnership with MTN throughout the country. MTN had increased the value-added services of such facilities by adding mobile-money, dealership and foreign exchange bureau services to the provision of Internet and ICT training.[63] In 2011, UCC contributed US$12,000 towards the establishment of the Mpondwe ICT Training Centre plus a facility, worth US$24,000 that aims to extend the use of internet services in rural Uganda. MTN won the bid to establish these cafes through a competitive bidding process. Also, MTN has led the MTN Village Phone project, built on the foundation of microcredit and synergies of different partners including the Grameen Foundation, MFIs and Village Phone Operators. 9,000 of them were installed between 2003 and 2007, which was 3,000 above the plan and these are now fully profitable and self-sustaining businesses.

Overall, the RCDF has contributed to bringing communications facilities and services within the reach of the local communities by enlisting private sector players to invest in the underserved areas. Some of the local population has been able to receive ICT training, leading to both direct and indirect employment opportunities for the local population.

According to the RCDF Annual Report 2012/2013, the following projects were completed:

- 2 Digital Terrestrial Transmission Broadcasting (DTTB) regional sites developed
- 32 new district web portals with regional translations
- Over 200 ICT laboratories established in schools including 6 Universities, 7 Health colleges, 5 colleges of commerce and 159 government secondary schools
- Community ICT training in 62 schools for over 13,000 people across the country
- Telemedicine installations in 53 hospitals were activated
- Virtual laboratory science content was installed in 106 schools taking the total number of school ICT laboratories up to 300
- Internet connectivity including satellite connectivity was provided to over 300 projects across the country

Nonetheless, the Fund has been facing numerous challenges:

- Very low incomes of the majority of the rural population
- Lack of or insufficient power supplies
- Illiteracy and ignorance of the benefits presented by ICTs
- High connectivity costs and lack of local content for the Internet

63. RCDF Statement 2011

The impact of the fund's projects is regularly evaluated and attempts have been made to address these challenges by using low energy (solar-powered) computers, sharing technologies or RCDF-supported Internet Points of Presence. RCDF has also been recognised among all other USFs in the world for being the only USF that has been able to absorb all funds at its disposal (for several years running) and to attract the biggest amount of development partner funds (US$15 million).[64]

4.5.6 OTHER ELEMENTS OF INTEREST

Although highly successful in collection and disbursement with its least cost subsidy auction strategy stimulating extensive national network rollout, there is a lack of evidence of a systematic impact of its activities, as rural penetration remains very low and most people in rural areas still do not have access to basic communications. Also, despite the introduction of competition through the unified licensing regime, the Ugandan telecommunications market remains highly concentrated with MTN Uganda having over 60% of the mobile voice market share and Telekom Uganda Limited the majority of the fixed voice market thereby leaving these two operators as the only main contenders in the universal service project bids.

64. UCC Annual Report 2009/2010 and RCDF Annual report 2012/2013

4.6

ECOWAS

In its efforts to provide Member States with guidelines for the successful implementation of universal access/service policies, the Economic Community for West African States (ECOWAS) adopted the Supplementary Act on Universal Access/ Service in 2007. The 15 ECOWAS member states are: Benin, Burkina Faso, Cape Verde, Gambia, Ghana, Guinea, Guinea Bissau, Ivory Coast, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo. The Act provides guidelines on the following:

- Creation of an appropriate regulatory and policy environment that fosters universal access/service.
- Measures that can be taken to develop a national policy with realistic universal access/service objectives.
- Role to be played by national regulators, policymakers and operators.
- Telecommunications services to be included in universal service obligations.
- Funding mechanisms.
- Co-operation in the area of universal access/service.

4.6.1 UNIVERSAL SERVICE/ ACCESS LEGAL FRAMEWORK AND SCOPE

The ECOWAS Supplementary Act A/ SA.6/01/07 on Universal Access/Service ("The Act") was adopted by ECOWAS Heads of State in January, 2007. The Act defines universal service as all citizens within the territory of the ECOWAS Member States having access to a basic group of services at affordable rates, regardless of their geographic location.[65]
The Act calls upon Member States to take all necessary measures in order to:

- Formulate a national policy that identifies appropriate and realistic universal access/ service objectives and considers the differences between universal access (public access to ICTs) and universal service (private or household access to ICTs);
- As frequently as possible, conduct public consultations with stakeholders to identify their needs and modify universal access/ service policies, regulations and practices accordingly;
- Design universal access/service policies, regulations and practices to create incentives for the private sector to extend universal access to communications services;
- Use a multi-pronged approach to addressing universal access/service challenges and opportunities, relying on complementary strategies to meet the targets that have been set; and
- Establish a fair and transparent telecommunications regulatory framework that promotes universal access to ICTs, while allowing the market to address universal access/service to the greatest extent possible, intervening only where the market has failed or seems likely to do so.

Creating the appropriate regulatory framework entails:

- Promoting technology-neutral licensing practices that enable service providers to use the most cost-effective technology in providing services for end users;
- Adopting a transparent and non-discriminatory interconnection framework in which interconnection rates are linked to costs;
- Reducing regulatory burdens to lower the costs of providing services to end users; and
- Promoting competition in the provision of a full range of ICT services to increase access, affordability, availability and use of ICTs.[66]

65. ECOWAS Supplementary Act A/SA.6/01/07 on Universal Access/Service at Art. 1 (2)
66. ECOWAS Supplementary Act A/SA.6/01/07 on Universal Access/Service at Art. 1 (2)

In addition, the Act determines that where it is necessary for regulators and policymakers to intervene to facilitate the delivery of universal access/service, the following should be addressed:

- Public access strategies should be explored in addition to private universal service strategies.

- Both pay and play strategies should be employed, but where possible, operators should be encouraged to invest in rural, remote and low-income populations and areas.

- Countries may use regulatory reform as the first step in achieving universal access, recognising that further steps may be necessary to achieve ubiquitous access to ICTs, e.g., in rural areas or for users with special needs.

- Appropriate licensing schemes for rural service providers could be set up to meet the needs of unserved and underserved areas.

Furthermore, the Act establishes that national regulatory authorities must ensure that universal service is provided to everyone at affordable rates. They may, at the request of the minister in charge of the sector, require designated companies to make available to low-income or special-needs users prices, options or schemes that differ from those normally prevailing in a commercial operation, particularly with a view to ensuring universal service. The conditions under which such facilities are granted must be proportional, transparent, non-discriminatory and publicly promulgated.[67] According to the Act, Member States should also aim to establish innovative regulatory policies to promote universal service, including:

- Promoting access to low-cost broadband interconnectivity from the local level to the international level, involving government authorities, companies and non-governmental organisations;

- Adopting regulatory frameworks that support applications such as e-education and e-government;

- Adopting policies aimed at increasing access to the internet and broadband services, based on their own market structure, such that the policies reflect diversity in culture, language and social interests;

- Ensuring that national regulatory authorities work with stakeholders to expand broadband coverage and use through multi-stakeholder partnerships, in conjunction with government initiatives that promote financially sustainable programmes, particularly with a view to bridging the market gap that may exist in some countries;

- Adopting regulatory regimes that facilitate the use of all transport media, whether wire line, power line, cable, wireless or any other new technology;

- Ensuring that national regulatory authorities put forward initiatives for encouraging public access to broadband and Internet services in schools, libraries and other community centres; and

- Ensuring that national regulatory authorities implement harmonised spectrum allocations consistent with the ITU radio communication conference process and each country's national interest.[68]

The Act also provides that cooperation in the area of universal service/access must be explored on several levels:

- Between the private sector and communities, so that where possible the market can deliver universal access/service;

67. Id.

- Between communities, government and the private sector, to ensure that the access gap is dealt with in a manner that is relevant to communities; and

- Within government, where the full benefits of ICTs may be reaped when it extends beyond infrastructure and technology, to include ICT access in health, education, agriculture and other sectors.[69]

In terms of enforcement, the Act provides that Member States shall ensure that the companies entrusted with the task of providing users with services under the universal service regime provide the national regulatory authority with a regular account of their activities and results achieved. National regulatory authorities shall also establish performance objectives for companies assuming universal service obligations.[70]

Pursuant to the ECOWAS Supplementary Act, individual licences may specify results to be achieved for the provision of universal access/service.[71] A licensee's persistent failure to achieve the specified performance objectives and quality levels may entail the application of sanctions by the national regulatory authority. National regulatory authorities are also entitled to require independent verification of an operator's performance of the obligations imposed on it.[72]

Mandatory services include directory and information services, emergency services, public payphones and services to people with disabilities or special needs. However, the Act states that within their respective national territories, Member States may decide to make additional services accessible to the public beyond those services already defined in the Act as universal service obligations.[73] In terms of emergency services, the Act provides that Member States shall ensure that emergency calls can be made free of charge from any fixed or mobile telephone, including telephone booths.[74]

The Act also states that in order to enable those who do not subscribe to a telephone service to have access to telephone services, Member States must ensure that public payphones are installed, under reasonable conditions, in terms of quantity and geographic distribution. Without prejudice to more generous domestic legislation that may exist, Member States were required to ensure that national regulatory authorities are in a position to impose schedules for the deployment of public payphones, with the aim of having at least one public payphone in each locality numbering 500 inhabitants or more by 31 December 2010. ECOWAS will monitor the implementation of this measure on an annual basis.[75]

In addition, the Act provides that where the need exists, Member States shall take specific measures to ensure that users with disabilities or special social needs have equivalent and affordable access to publicly available telephone services, including emergency and directory services at an affordable price.[76]

The Act mandates that in monitoring and reviewing policies, Member States must, on one hand, adopt measurable targets for improving connectivity and access to ICT use, which can be based on distance, population density or length of time needed to have access to ICTs. On the other hand, Member States must hold periodic reviews of universal access/service policies, regulations and practices in order to adapt to the evolving nature of ICT services and end-user needs. Member States are required to review periodically the scope of the universal service, focusing on proposals for its modification or redefinition. The first such review is to be held no later than two years following the date of the Act's entry

68. ECOWAS Supplementary Act A/SA.6/01/07 on Universal Access/Service at Art. 1 (2)
69. Id.
70. Id.
71. ECOWAS Supplementary Act A/SA.3/01/07 on the Legal Regime Applicable to Network Operators and Service Providers
72. ECOWAS Supplementary Act A/SA.6/01/07 on Universal Access/Service at Art. 17(3)
73. Id.
74 Id.
75. ECOWAS Supplementary Act A/SA.6/01/07 on Universal Access/Service at Art. 11.
76. Id.

into force, and thereafter a review shall be held every three years. The review shall consider social, economic and technological developments, and shall have particular regard to data mobility and transfer rates for the technologies most widely used by the majority of subscribers. Member States are required to inform the Executive Secretariat of ECOWAS of any changes.[77]

4.6.2 FUNDING MECHANISM

To assist national regulatory authorities in determining whether provision of universal service places an unjustified burden on the companies designated as providers, the Act establishes that Member States shall commit to provide for the adoption of a method for calculating the costs of the universal service, based on net costs. The net cost corresponds to the difference between the investment and operational costs associated with provision of the universal service and the relevant revenues. Relevant revenues are the direct and indirect revenues generated by the universal service. The net cost of any special price-scheme offers made by an operator to certain categories of subscribers to ensure their access to the universal service are to be deducted from that operator's contribution to the USF. The calculation of the net cost of the universal service obligations must be submitted for auditing by an entity that is not connected with the body responsible for managing the Fund. The result of the net cost calculation and the audit conclusions are to be made publicly available.

Funding and subsidies must be targeted, and these are to be determined and delivered in a manner that is transparent, non-discriminatory, inexpensive and competitively neutral. Subsidies can be provided using several means, including:

- A Universal Service Fund, which should be developed as a mechanism within a broader marketoriented approach to achieving universal access; and

- USF may be financed by a broad range of market players, managed by neutral bodies such as regulators and may also be used to kick-start public access projects that meet the needs of the local community.

Governments may also consider a full range of other financing mechanisms. Competitive minimum subsidy auctions are one option that may be used to reduce the amount of financing necessary for public access projects financed by a Universal Service Fund. Public access projects can be designed to achieve long-term financial self-sustainability, especially where consideration is given to innovative low-cost technologies.[78]

4.6.3 WHAT HAS THE ECOWAS ACT ACHIEVED SO FAR

Despite the many solid guidelines for effective creation and management of USFs/UASFs that are contained within the Act, there is little evidence that the Member States have made any noticeable progress in adopting and carrying out these guidelines.

77. ECOWAS Supplementary Act A/SA.6/01/07 on Universal Access/Service at Art. 13.
78. Id. at Art. 20.

05.

Best practices in the management of the USF

5.1

INTRODUCTION

At the outset of the introduction of USFs, governments and telecom organisations alike viewed USFs as a new and innovative approach to addressing universal service requirements, especially in light of various concerns regarding the practicality of USO frameworks in an increasingly liberalised global telecommunications environment. The ICT Regulation Toolkit, the following description was applied to the USF concept: *"Where UAS Funds are used, they have proved effective when disbursement is coupled with competitive bidding or auctions for these financial incentives, requiring operators to compete for the minimum subsidies needed to fulfill the UAS target."*[79]

However, USFs have not proven to be the expected panacea to universal service funding and, unfortunately, there are extremely limited examples of best practices with respect to USF management, particularly in SSA, and even those that can be cited as being best practice examples have their individual drawbacks and shortcomings. Based on the analysis conducted as part of this SSA USF study, the authors have concluded that although there are some examples of well-conceived and well implemented Funds, it is extremely difficult to point to many Funds that embody all of the positive elements that would contribute to a highly successful and effective Fund, creating a sustainable economic value in terms of economic development.

79. http://www.ictregulationtoolkit.org/en/Section.3116.html

5.2

BASIC ELEMENTS AND CHARACTERISTICS OF A SUCCESSFUL USF

This section explores the elements needed to ensure a successful USF fund. These 12 essential elements for the successful design and administration of a fund are:

1. A sound and flexible legal and regulatory framework
2. A fund must be autonomous and independent in nature
3. Clear policy articulation
4. Consultation with stakeholders
5. Clear delineation of responsibilities between USFs and other external organisations
6. Defined and measurable objectives
7. Flexibility and neutrality in service development
8. Fair and objective project allocation process
9. Capacity building and sustainability
10. Innovation and incentives
11. Visibility, transparency and accountability
12. Digital inclusion

Each element is explored in more detail below. Wherever possible, SSA examples have been utilised. When such examples are not available, references are made to successful examples in other regions.

5.2.1 SOUND AND FLEXIBLE LEGAL AND REGULATORY FRAMEWORK

One of the fundamental success factors necessary to provide a solid and developmentally oriented foundation for USFs is a legal or regulatory framework that is flexible enough so as not to impede evolution and change as needed is critical to the successful ongoing functioning of a USF. There are some countries that have been able to change the scope and/or direction of the USF because of this underlying flexibility.

In Ghana, the legislative flexibility allowed GIFEC to broaden its mandate to include the provision of access to electronic services including ICT, broadcasting, internet and multimedia service. Another example is Nigeria where, based on an assessment of the fund performance, the administrators are in the process of transitioning and enhancing many aspects of the fund because the underlying framework enables them to make changes.

5.2.2 AUTONOMY AND INDEPENDENCE

Within the portfolio of funds examined, there are some funds that have been structured to operate in a fully autonomous manner. An example of how this functions is as follows. In **Nigeria**, the fund is a separate entity – the USPF; the Board of Directors is formed with representatives of both the private and public sectors. This autonomy has allowed the Board to undertake an in-depth examination of some performance issues and to address this through a revamping/re-orientation of the fund

5.2.3 POLICY ARTICULATION

Although the telecommunications or ICT law provides direction for the creation of a USF, this is generally at a high level. This high level directive needs to be complemented and supported by a clear articulation of the overall USF vision and policy in addition to the activities needed to carry out the policy. In order to do so, some of the fundamental questions to be kept in mind are: What is the fund seeking to accomplish and how should its resources be allocated to achieve these objectives? This policy articulation is one of the fundamental elements of a successful

USF, some examples of which are as follows. The regulator in Burkina Faso regularly publishes USF strategies and goals that include national coverage goals.[80] In Uganda, the USF policy clearly defines the phases of the USF, the objectives and how these objectives should be attained.

5.2.4 CONSULTATION WITH STAKEHOLDERS

The concept of stakeholder consultation is recognised as extremely valuable in that it is often the operators and other telecom players that have in-depth knowledge and, as such, are able to offer valuable suggestions and guidance as regards fund focus and execution. This also fosters the notion that the USF management is transparent with well entrenched consultative processes. In the case of Ghana, the Board of Trustees for the fund includes a representative from each major telecom operator.

In Morocco, operators have a number of options regarding the manner in which they can fulfil their USF obligations. These include:

- Take the 'traditional' USF route and pay 2% of gross revenues per annum.
- Respond to tenders issued by the Universal Telecommunications Services Management Committee (CGUST).
- Develop and propose their own Universal Service projects.

All operators are free to respond to tenders issued by the CGSUT and to participate in a competitive bidding process. Any operator that would like to develop and execute its own universal service projects may submit a proposal to the CGSUT for review and approval at which time the CGUST will:

- Dictate the terms and conditions; and
- Prepare a term sheet in the form of an authorisation or licence (cahier des charges).

For those operators that elect to participate in the 'play' approach, at the end of each financial year, the operators pay the difference (if any) between the full USF amount that would have been collected from them (i.e., the two percent levy) versus the amount expended by them in fulfilling the USF projects. Although this approach may not be perfect, the Pay or Play concept does achieve several desirable goals:

- Operators have the opportunity to actively participate in the design of universal service projects.
- There is an opportunity to actually see the projects to which the funds are being directed.
- There is the ability to reduce a levy that indirectly gets allocated to other operators and to make sure that the operator that contributes is able to benefit directly from that contribution.

5.2.5 DELINEATION OF RESPONSIBILITIES BETWEEN THE USF AND OTHER EXTERNAL ORGANISATIONS

Clarity is important in any undertaking, especially when attempting to respond to the often urgent requirements of a USF project candidate. Therefore, guidelines and procedures for working with other government entities or funding sources assist in the administrative effectiveness of the fund. In South Africa, a detailed USF operating manual has just very recently been prepared whereby it defines and allocates roles and responsibilities, including with other organisations such as the South Africa Broadband Forum.

5.2.6 DEFINED AND MEASURABLE OBJECTIVES

The USF policy articulation referenced above in section 5.2.3 above must be bolstered by the development of defined

80. It is important to note that although the strategy publication is commendable, there is no evidence to date that any of the recommendations have ever been implemented.

and measurable objectives. Without clearly defined objectives, it is extremely difficult, if not unachievable, to ascertain the extent to which the fund has been effective in carrying out the overall policy and vision as regards the funding of universal service requirements. This instils greater confidence in the stakeholders and encourages overall support of the programme. Specific examples of this were not evident in SSA where defined objectives are typically confined to a listing of projects to be undertaken; therefore the following examples are cited:

- **Colombia:** The fund produces a four year plan with targets, detailed project descriptions and the projected associated cost of the projects.

- **Peru:** FITEL produces an annual report on fund performance with respect to project allocation and project performance versus target; this report also lists the projects and related targets to be addressed in the subsequent fiscal year.

5.2.7 FLEXIBILITY AND NEUTRALITY IN SERVICE DEPLOYMENT

One of the key success factors that cannot be overlooked is the underlying need for a technology neutral approach in service deployment. Today, technology and services evolve at such a rapid pace that no entity can be expected to accurately predict how the manner in which technology will evolve and at what pace. Therefore, the guiding philosophy should be that any technology can be utilised and deployed provided that it corresponds to an international recognised standard and can satisfy the service and/or coverage requirements. The flexibility of a technology neutral approach has been particularly instrumental in the deployment of broadband given the huge and burgeoning global demand for this service.

5.2.8 FAIR AND OBJECTIVE PROJECT ALLOCATION PROCESS

An equitable project allocation process needs to be preceded by an equitable fund contribution process with the understanding that those who contribute to a USF can also, where feasible, have the potential to bid and/or apply for projects that will be financed via the USF mechanism. The fund administration must establish clear and understandable criteria for proposed projects and for evaluating project proposals. This should be followed by a formal proposal solicitation and evaluation process to approve selected bids and to distribute funds. In order to ensure the greatest possible participation in a USF project allocation process, project and bid announcements need to be widely disseminated so as to encourage the maximum number of interested participants. One of the most successful approaches has been the use of a well-publicised, competitive and transparent bidding process such as that used in Nigeria (least cost subsidy with successful bidders posted on the fund's website).

5.2.9 CAPACITY BUILDING AND SUSTAINABILITY

In addition to providing basic telecommunications infrastructure and services, funds must take into account the need for sustainability as demonstrated below. Sustainability is underpinned by targeted and comprehensive training and other educational programmes designed to ensure self-sufficiency in areas such as the operation of tele-centres or community centres and, in addition, to facilitate the use of telecommunications technologies by population segments who have previously had little or no access to telecommunications of any kind. The concept of sustainability should also encompass the development of content and/or applications that have the potential to assist those requiring access to specialised telecommunications services –

services that are designed to improve and enrich the lives of those who require them. In Lesotho, for instance, content developers are eligible for funding via the USF whereas in Uganda, the fund permits the addition of supplementary services to stimulate use of tele-centres and village phones, content, etc.

5.2.10 INNOVATION AND INCENTIVES

In order to encourage effective project execution, some funds provide incentives for efficient deployment and/or innovation and cost-minimisation where feasible instead of direct and immediate reimbursement. This also requires effective fund administration and project oversight to ensure that the incentives are warranted. The 'pay or play concept' in Morocco as discussed in section 5.2.4 above, is one of the few examples of specific attempts to motivate operators providing a USF service to identify, help plan and ultimately deliver the facilities and/or service.

5.2.11 VISIBILITY, TRANSPARENCY AND ACCOUNTABILITY

Given the significant amount of the contributions collected from most operators and considering that the underlying regulations governing individual USFs frequently require regular reporting of financial results, visibility and transparency are paramount. Examples in SSA are limited but the newly revamped USAASA in South Africa is trying to adopt this practice as exemplified by the project budgets now being posted on its website (please refer to examples in section 4.– Deep Dive Analysis).

5.2.12 DIGITAL INCLUSION

A number of funds have attempted to address the special circumstances or requirements of target population sectors such as the persons with disabilities, the elderly, indigenous people and women and girls whereas others also attempt to address the connectivity needs of anchor institutions. Although there are quite a few examples of anchor institution connectivity, there are fewer examples of success factors in funds that have translated policy into action as regards inclusion of persons with disabilities. The examples of success factors as regards digital inclusion of girls and women are for the time being extremely limited globally and even more so in SSA. However, of note is Ghana where GIFEC is establishing hybrid for-profit tele-centre and non-profit community resource centres targeting the general community members, school children, youth out of school, women and women's groups. There are also 'Easy Business Centres' for Persons with Disability. Another example is in Mauritania where the fund introduced an Information and Telecommunications Centre for people with disabilities in which training and services are also to be provided.

06.

Common challenges in the administration of USFs in SSA

6.1

OVERVIEW

It should come as little surprise that there are a variety of challenges associated with administering USFs in SSA. Some may be directly attributable to the flaws or shortcomings in the underlying legal and regulatory framework but others may simply be a reflection of the conditions prevalent in the country in which the fund is operating or the challenges could also be the result of the fundamental economic unviability of the fund design. A list of some of the most commonly encountered challenges and pitfalls are provided in the subsequent section.

6.2

UNDERLYING LEGAL AND REGULATORY FRAMEWORK

The underlying legal frameworks for many funds seem to have not been well thought out or conceived from the outset (e.g., not technology neutral or service flexible, excessively bureaucratic, insufficient oversight, etc.) and this has resulted in a number of ineffective or severely constrained funds. In a number of cases, for instance, the framework is designed to support funding only of fixed-line services. However, in some cases, this can be attributed to the fact that at the time at which some of the USFs were created, many did not anticipate the explosive development of mobile technology, nor indeed other technologies. These same issues with respect to underlying legal frameworks also pose a major challenge to the introduction of rural and non-commercially viable broadband through the USF funding mechanism because many of the frameworks require legal or regulatory changes in many cases in order to include the provision of broadband.

Based on the age of many funds, somewhat understandably, very little or no consideration was given at the time of their inception to the possibility of ancillary and complementary services or tools that might need to be provided in conjunction with or in addition to the USF funded project (e.g., improved power sources, the need for access roads, requirement for training, equipment needed to complement basic telephony in tele-centres, the need to develop specific content and applications, etc.).

In a number of cases, the law or regulation is very general in nature and requires the issuance of a supporting decree or regulation in order for the fund to become fully defined and operational. For reasons that seem quite unclear in the majority of countries where such a situation exists, there would appear to be little or no subsequent effort to prepare or issue the required decree, rules or instructions that will govern the operation of the fund. This has resulted in a number of funds where the levy is established and collected but no related fund activity is initiated, thereby resulting in collected monies presumably remaining dormant and not being put to the use for which they were intended.

6.3

DIFFICULTY TO ADAPT TO CHANGING REQUIREMENTS AND FOCUS

As a result of either the above-referenced restrictions or oversights in the legal and regulatory framework or due to a general lack of ability or sometimes the will on the part of regulators and fund administrators, many SSA funds in their current state cannot be adapted to new conditions and requirements or cannot evolve in accordance with technological or societal change. Therefore, such funds are less flexible than needed and these constraints can stifle the level of responsiveness and usefulness of the fund as regards the needs of the unserved and/or underserved. It has been clear for a number of years that many funds in their current state, based on the definition of the overall objectives and the stipulated focus areas, have become less effective than would be desired and would require structural change. However, to date, only a limited number of countries faced with these constraints have attempted, whether through legislative, regulatory or policy changes, to revamp or re-orient the fund mission, structure and administration. It is anticipated that this could be a problem going forward even for some of the funds that have a more future-oriented framework and policy given that outlooks and what is viewed as forward thinking at one stage can become rapidly outdated in the face of rapid societal change and technological evolution.[81]

6.4

CORRELATION BETWEEN USF LEVIES AND DEMAND

In general, even for the most effective funds, the levies and taxes established for most USF contributions appear to have been established without conducting substantive analysis regarding the actual service funding/subsidy levels needed and, as a result, many funds receive contributions that appear to be far in excess of the actual universal service funding needs or capabilities (please refer to section 3.2.4 above), with no concrete plans regarding how to address this 'overfunding". In other cases, the funds seem to have difficulties in developing enough projects to utilise adequately the levies collected. In many instances, this is due to the absence of access gap evaluations as well as meaningful demographic surveys. In either case, this can result in substantial, undisbursed surpluses in the funds.

81. For instance, in ITU Trends in Telecommunications 2003, considerable effort and emphasis were devoted to what constituted an ideal USF. However, the vision at the time did not take into account many factors that are considered very important in 2014 (e.g., e-applications, sustainability, etc.

6.5

STRUCTURAL DEFICIENCIES

Many funds are constrained because of basic structural deficiencies that can be manifested in many different forms. However, in general, deficiencies could include items such as a clear definition of roles and responsibilities or detailed guidelines regarding the manner in which levies should be calculated and subsequently applied and collected. Other examples may include the weak or ambiguous definitions of what the funds can address, resulting in constrained approaches to project identification and allocation. In the funds in which some degree of structural deficiencies exists, some of the difficulties and challenges being encountered are:

6.6

DEFINITION OF USF STRATEGY AND OBJECTIVES

Many USFs do not have a clear articulation of either overall USF strategy or objectives. In addition to causing the difficulties mentioned with respect to oversight and governance, the lack of a clear strategy has resulted in a number of issues and obstacles with a number of funds such as an inability to adequately set targets or an inability to demonstrate what the fund has achieved in terms of coverage or in meeting overall obligations of the fund (in many cases, these elements have never been stated in the first place).

6.7

MANAGERIAL, OPERATIONAL AND CAPACITY ISSUES

Many funds have been hampered or even greatly impacted by the choice of management personnel who lack the requisite skills and background required for the effective administration of a USF and this situation results in ineffective overall administration. There appears to be several basic reasons for this situation including inappropriate definition of both the various USF management roles and the skill set and experience needed to fulfil the roles. In addition to these shortcomings at the fund management level, similar situations occur at the project level where the project description and definitions do not necessarily take into account all of the experience, skill levels or time commitments needed for successful project execution. Furthermore, in a number of cases, the resources within the fund management team are not in a position to be able to closely monitor and/or oversee successful project execution.

6.8

TRANSPARENCY, VISIBILITY AND ACCOUNTABILITY IN USF REPORTING

There is a significant absence of financial reporting amongst the existing funds. Of the countries included in this study, over 75% have no formal public reporting process in place regarding the use and management of funds or many have not followed the prescribed reporting process even though in many such cases they do publish some ad hoc project reports. Consequently, it is frequently difficult to ascertain status of projects in progress and in many cases, there are unclear, contradictory or non-existent relationships presented between funds collected, funds disbursed and remaining balance. The perceived transparency issue is severe enough that there have been various allegations (and even corroboration) of financial mismanagement associated with a number of funds.

6.9

OVERSIGHT AND GOVERNANCE

Even in funds where there is a degree of autonomy and independence, there are cases where political intervention or interference from other government agencies affect the fund's performance. In other cases, the governance process as established has neglected to take into account the external factors that impede oversight and governance such as, for instance, delays in budget approvals when these are required from Parliament or the National Assembly (or similar), or where multiple approvals are required from a number of different committees and government organisations. In cases where the governance principles and rules have not been adequately articulated, legal disputes or major delays have frequently ensued.

6.10

PROJECT ALLOCATION PROCESS

The project allocation process is one of the other areas in which fund performance can be significantly affected. Lack of qualified and/or interested vendors to bid on projects or flawed design of economic incentives for vendors to bid are all elements that can impact USF projects. Overall shortcomings or oversights in the structuring, allocation, administration and monitoring of projects will only result in inferior project inception and implementation or, in some cases, in unsuccessful and abandoned projects. Even when many of the active funds appear to have transparent project allocation processes, the ball often starts to drop in terms of project monitoring, tracking and reporting.

6.11

CONSTRAINTS TO BROADBAND DEPLOYMENT

Although this challenge is already alluded to in the examination of technology and service limitations stemming from missteps in the formulation of USF legislation and regulation, the constraints to broadband deployment represent one of the most significant drawbacks to many funds in SSA. With the ever-escalating global demand for rapid and easy access to information and the growing evidence of the economic and social benefits generated by broadband implementation, the restrictions of many USFs as regards financing of broadband is a major hurdle. The Broadband Commission has called for the increased use of USFs to fund broadband but this call fails to consider the many constraints. There are many funds that have adequate financial resources to help finance broadband deployment but the funds sit idle because they cannot be disbursed for this purpose.

6.12

UNDERLYING INFRASTRUCTURE AND FACILITIES

It is important to keep in mind that the often remote and difficult to serve areas requiring support from USFs are also lacking in other basic necessities; not just adequate communications. In many cases, the USF programmes fail to consider the need for power sources, access to water, ongoing maintenance, security and other sustainability requirements. Tele and community centres are of limited use if they cannot be adequately maintained with reliable power sources or if there is lack of potable water or sanitation, to name but a few examples. These hurdles are sometimes encountered because the fund management has not carried out any pre-project surveys and thus these conditions are not considered in the overall project definition and structure.

6.13

AVAILABILITY OF RESOURCES AND KNOWLEDGE

In many instances, the programmes and targets established for the deployment of tele-centres, community information centres and cyber labs have failed to take into account issues related to training and education that need to be addressed due to widespread illiteracy and general lack of knowledge amongst many segments of poor and disadvantaged populations. Providing access to advanced information technologies requires widespread education and awareness of their availability, as well as building the knowledge and skills necessary to use the services effectively. Training and education requirements are not confined to recipients of the USF projects. The successful execution of many USF projects also has been hampered by the lack of adequately trained staff to maintain services such as tele-centres. This same scarcity of resources applies to the need to have access to individuals with the right skill set and knowledge to assist in and or carry out development of the applications and content often needed to supplement/reinforce the services to be provided.

6.14

LOCAL CONDITIONS AND RELATED SECURITY

The nature of the remote and often difficult areas to be covered by USFs means that there are local situations that impede or totally prevent USF projects from moving forward. These include factors such as hostile terrain, and precarious political situations (e.g., political unrest, civil unrest or insurgent activity, etc.). In such situations, there is little to be done other than to 'wait it out' until the situation becomes less problematic.

6.15

CONSIDERATION OF DIGITAL INCLUSION

The overall concept of digital inclusion has been overlooked by the majority of SSA funds included in this study. Once again, in many cases, the root of this exclusion stems from an oversight or exclusion in the crafting of the initial USF legal and legislative framework and thus, digital inclusion cannot be addressed without changes to this underlying legislation and/or framework. However, this is not always the case, and it is also important to note that while a number of funds have articulated a policy with respect to specific elements of digital inclusion such as services for persons with disabilities, many of these same funds have so far not translated the articulated policy into specific targets and actions. Although many of the SSA funds in theory now support the creation of tele-centres, either the policy or the defined targets for tele-centres have not taken into account the accessibility, assistance for persons with disabilities the need to target and support services for girls and women.

07.

Recommendations

As demonstrated in the preceding analyses and as further reinforced in section 8 below, the current performance of most USFs in SSA falls far short of achieving the universal service goals that were the initial catalysts for the formation of these USFs. With only a few noteworthy exceptions, governments and administrations in SSA have so far been unable to address and resolve the many shortcomings prevalent in so many of the funds even though these deficiencies have been known for quite some time. Given the number of inactive funds or funds with very little activity over a long period of time, it is likely that more could be achieved by closing the completely inactive funds and returning to the operators the levies that have been collected but never utilised. The funds could be returned with the stipulation that they be utilised to help develop services to rural and other underserved areas with particular emphasis on the deployment of mobile broadband. However, the approach of closing funds with almost immediate effect could be challenging to implement. In such cases (or even in cases where funds collect more money than they can reasonably spend) another possible solution is to gradually reduce the levies and phase out the USF over time.

In addition, the GSMA strongly recommends that governments that are currently considering but have not yet implemented USFs explore all other possible universal service coverage and funding mechanisms (e.g., PPP, licence conditions, etc.) before moving forward with the creation of any new USFs.

However, in cases where the elimination or gradual phasing out of USFs seems unlikely or where it has already been decided to move forward with the creation of a new USF, there is a pressing and urgent need to address, modify and correct the underlying structural deficiencies, overall conditions and governance needed to ensure that the USFs can be as well-managed and effective as possible in responding to the universal service technologies, services and applications in need of funding. In order to effect these much needed improvements and modifications to the funds, the following elements must be incorporated.

1. Creation of a well-articulated policy with respect to how Universal Service (US) goals will be achieved and how the USF will be put to use to assist in attaining these goals
2. Development of an appropriate and well-defined underpinning legal and regulatory framework
3. Establishment of the USF as separate, independent (autonomous) entity free from political interference
4. Clear definition and delineation of fund responsibilities
5. Development and clear articulation of measurable overall fund objectives which can subsequently be tracked and monitored
6. High level of transparency, visibility and accountability to all stakeholders
7. Active participation in and input from all concerned stakeholders regarding fund objectives and administration
8. Guidelines and procedures for working with other funding sources
9. Ensure that the full range of sustainability elements and complementary/ancillary services are taken into consideration in both policy formulation and project definitions
10. Creation of a fair and unbiased process to allocate projects and subsidies
11. Development of incentives for project participants
12. Implementation of policies that incorporate digital inclusion

08.

USF overview tables

This section presents key information country by country in table format. The information summarised in the tables is intended to provide an overview of the structure, governance and performance of the funds included in this study. Where available, a recap is presented of the most recent USF projects in each country.

8.1

BURKINA FASO

BURKINA FASO	Year fund established: 2000 legal and administrative establishment. 2001: commencement of levy collection.
Overall Fund Structure and Operation	Fond d'Accès au Service Universel: the fund is managed by ARCE (Autorité de régulation des communications électroniques). ARCE is responsible for collecting funds whereas the resources of the Fund are to be managed by a Council comprised of representatives of the relevant Ministries and presided over by the Minister of Communications.
Contribution Type and Frequency	**2% of annual revenue net** of interconnection payments from all operators having an individual licence, paid on a monthly basis and calculated on the previous month's revenues. The Government and local authorities can also contribute to the fund. The law provides for allocation of some of the new or renewal licence fees for the benefit of the fund.
Services Currently Authorised Under the Existing Framework	• Fixed-line private residential service • Fixed-line public payphone service • Individual mobile-cellular service • Public mobile payphone service • Broadband • Tele-centres • Schools (primary, secondary post- secondary) • Health centres • Emergency services • Special services for persons with disabilities and elder persons • Directory services, and other services defined by the regulator The aim of the universal service strategy was to complete coverage of the national territory, including coverage of 5,200 villages by 2010. The 2003 National Strategy identifies zones to be covered by the universal service project and mandates the Ministry, through the regulator, to carry out the strategy. The Strategy also divided the country into 13 regions, each representing a project area (each area is equivalent to an administrative region). The 2005 Universal Service Strategy identified a number of targets: • Provide public voice telephony service to an average of 70% of selected rural localities in a given region; • 95% of selected localities must be within 5km of one public access point; • Private service must be available in rural areas with prices no more than 25% above published fixed and mobile tariffs; and • Internet POPs in each provincial capital in each tendered region. The ICT strategy for 2006-2010 includes goals for the Universal Service Fund, including broadening the areas covered by the fund to include the production of multimedia content in national languages, the introduction of ICT in health and education, universal postal service, training and promotion of e-jobs.
Fund Allocation Process	Operators and other telecom service providers are eligible except for operators who do not contribute to the Fund (these become eligible only if no contributing candidate is selected). Originally, for each region, locales not covered by the incumbent's licence were identified with the intention of granting licences to rural operators through a tender process. Only the incumbent, Office National des Télécommunications (ONATEL), and existing mobile operators can apply for such licences. In the first stage, a pilot area was defined, working with the incumbent for the provision of service to this area. Under the 2011 Decree, the allocation mechanism is the following: • The Regulator sets up a list of villages that are in need of universal service; • The interested villages send a letter to the Telecoms Minister explaining their requirements; • The Regulator prepares a comparative study of the projects and invites operators to apply for a project; • Only projects which are not profitable can be financed through the Fund; and • The funds are disbursed only after complete execution of the project.
Governance	Supervision is carried out by the Council. Funds are audited annually by the *Inspection Générale des Finances*, and ARCE must submit certified financial accounts to the Ministry of Finance at the latest six months after the end of each financial year. In addition, ARCE must publish an annual activity report by March 30 of each year. However, none of this is done.
Level of Activity	**Inactive** **No financial reporting**

8.2

CAMEROON

CAMEROON	Year fund established: 2012
Overall Fund Structure and Operation	The Telecommunications Regulatory Board of Cameroon (ART) is in charge of organising and supervising the Fund. The Minister in charge is assisted in the day to day activities by a: • Technical secretariat and a committee that selects the best projects; • Finance controller who validates expenses; and • Accounting officer who pays all expenses.
Contribution Type and Frequency	**3% of untaxed annual turnover** of operators; grants (when provided by the government), percentage of fees for the sale/renewal of licences as well as international donations, grants, etc.
Services Currently Authorised Under the Existing Framework	The law requires that the Fund provides basic telecommunication services to all at a certain pricing level. It also includes: routing emergency calls free of charge and provision of information service and a subscriber directory. The Fund also pays all financial contributions to Telecom/ICT international bodies.
Fund Allocation Process	Competitive bid in accordance with public procurement rules.
Governance	The Fund is managed using public accounting rules and is audited by the Ministry in charge of the Supreme state control and accounting branch of the Supreme Court. The Minister in charge of Telecommunications is the ONLY authorised officer of the Fund, and reports regularly to the Prime Minister on the management of the Fund.
Level of Activity	**Moderate activity.** The Fund has contributed to the West African Submarine Cable, financed the interconnection of ministerial departments and, is in the process of constructing a number of tele-centres. It is also planning to finance the connection of low income households using fibre optics, and is participating in connecting all 10 regional headquarters through fibre optics. **No financial reporting to date but the Fund is still relatively new.**

8.3

COTE D'IVOIRE

COTE D'IVOIRE	Year fund established: 1998: legal establishment; 2006: administration and collection
Overall Fund Structure and Operation	The National Telecommunications Fund is an Account of the Regulator: Cote d'Ivoire Telecommunications Authority (CITA). The account was created at the National Investment Bank (BNI). The Fund is managed by a Management Committee, nominated by the various Ministries - 10 members: Ministry of Economic Infrastructure, Planning and Development, National Treasury, CITA and chaired by Ministry of Finance & Economy which can be replaced by the Ministry of Telecoms. The Management Committee is assisted by a Technical Committee composed of: • Ministry of Finance & Economy • Ministry of Economic Development • National Office for Technical and Developmental Studies • CITA • Cote d'Ivoire Telecom • One representative of another operator

Contribution Type and Frequency	**2% of Gross Annual Revenues from mobile operators only**. According to the 1998 Decree, other sources can be used, such as: • Loans by the Fund • Revenues from Fund's investments • Contributions from State budget • Gifts • Other taxes on telecommunication • Any other source
Services Currently Authorised Under the Existing Framework	According to the 1998 Decree, rural infrastructure projects are the focus. Universal service is defined: • Fixed-line private residential service • Fixed-line public payphone service • Dial-up Internet access • Emergency services • Directory services.
Fund Allocation Process	Based on competitive bids.
Governance	Economic and Financial supervision is effected by the Ministry of Finance & Economy; technical supervision by the Ministry of Economic Infrastructure.
Level of Activity	**Operational. Low activity.** **No known financial reporting.**

8.4

DEMOCRATIC REPUBLIC OF CONGO

DEMOCRATIC REPUBLIC OF CONGO	Year fund established: 2002 legally created, not yet functional.
Overall Fund Structure and Operation	The 2002 Telecommunications Act provides that the Fund is to be managed by the regulator, but does not mention any periodic reviews of the fund or universal service obligations. Sector contributions, in the form of a licence fee, go directly to Public Treasury.
Contribution Type and Frequency	The 2002 Telecoms Act stated the intention to finance the provision of covered services through a fund constituted of contributions assessed against all operators, providers of services, and manufacturers or importers of telecommunications materials. No amount has been collected as contribution to the Funds yet. Some licences provide that **2% of Gross Annual Revenues will also contribute to the USF, those amounts are, in fact, paid only as licence fees.**
Services Currently Authorised Under the Existing Framework	Universal service is defined in the DRC 2002 Telecommunications Act as the right of every Congolese to benefit from voice telephone, telex, and public telephone service, in rural, urban and isolated areas.
Fund Allocation Process	N/A
Governance	Not known yet
Level of Activity	**Inactive** **No financial reporting**

8.5

GABON

GABON	Year fund established: Legally in 2001: not yet set-up administratively.
Overall Fund Structure and Operation	Fonds Spécial du Service Universel (Special Fund for Universal Service) is administered by the regulator, Agence de Régulation des Communications Electroniques et des Postes (ARCEP). The USF is supposed to be a separate account from ARCEP's account at the Public Treasury. The Director General of ARCEP will be responsible for the Fund's receivables and disbursements under the supervision of the President of ARCEP's Regulatory Board
Contribution Type and Frequency	**2% of net revenue per year from fixed and mobile operators.** The fund can also be financed by other financial sources such as aid from public or private financial organisations and territorial groups.
Services Currently Authorised Under the Existing Framework	The 2001 Law establishes that universal service has to be provided to every person who requests basic telecommunications services. Basic telecommunications services include international, national and local fixed telecommunications services for telephone, facsimile, telex, and telegraph, provision of emergency call service, a universal directory, information service and service in the national territory through the installation of public telephone booths along public roads.
Fund Allocation Process	All telecom operators are eligible. ARCEP is responsible for implementing the universal service programme, which will allocate Fund resources to operators through a competitive bidding process. ARCEP determines which communities are in need of service and the level of subsidies necessary to achieve coverage, and submits a plan to the Ministry for approval.
Governance	Financial accounts of the Fund must be reported to the Ministry of Telecommunications no later than the April 30 of each year, together with a management and administration report. A copy shall also be sent to the Minister of Finance. The Fund's accounts are audited by ARCEP's Chief Accountant and subsequently submitted to the Accounting Court for revision.
Level of Activity	**Inactive** **No financial reporting** Operators have been refusing to pay the USF levies since 2009 or earlier because the Presidential decree setting out how the fund should be operated has never been issued. However, in late 2013, the regulator issued a demand for back payment and has also issued an invoice for 2014-2015. Operators are still refusing to pay, citing the licence conditions.

8.6

GHANA

GHANA	Year fund established: Launched in 2004, started in 2005 and distributed since 2006. Replaced in 2008.
Overall Fund Structure and Operation	GIFTEL was set up as an agency of the Ministry of Communications. It was established as an independent agency that manages the Fund. GIFEC funds are to be paid into specific bank accounts. GIFEC is serviced by a Secretariat under the direction of the Administrator of the fund (Chief Executive) and it oversees the implementation of the Fund's projects.
Contribution Type and Frequency	Licensed operators (fixed/mobile operators, and recently licensed MNP CRDB service provider) **contribute 1% of their annual revenue** (Net revenue means Gross Revenue less VAT, National Health Insurance Levy, Communications Service Tax and Interconnect Charges). Other legal sources of GIFEC funding include: • Monies provided by Parliament • Monies that may accrue to the Fund from investment made by the Trustees of the Fund • Donations, grants and gifts • Any other monies that may become lawfully payable to the Fund.

Services Currently Authorised Under the Existing Framework	GIFTEL was set up to facilitate the provision of universal access to basic telephony to the unserved and underserved communities. Projects that are subsidised through GIFEC are prioritised using the following criteria: • Provision of basic telephony service to rural areas; • Support for the establishment of access to value-added services including introduction of Internet Points-of-Presence (PoPs) in every district. GIFEC widened the scope of its mandate to include the provision of access to electronic services including ICT, broadcasting, internet, multimedia service and basic telephony, for the unserved and underserved communities.
Fund Allocation Process	Disbursement mainly takes the form of non-commercial but competitive grants: • For public telephony projects, Internet Point-of-Presence and training contracts by open tender; and • To applications in rural areas, which do not have services, or seeking support for 'rural packages' to enhance access to services for public telephony kiosks or tele-centres but are seeking amounts less than a certain US$ threshold, shall be by direct disbursement based on a business plan demonstrating financial viability or self-sustainability. By end of 2009, projects had been allocated based on a competitive process: least subsidy requested from qualified bidders. Infrastructure subsidies are typically provided to the first entrant in an area and then new entrants share the mast. The board evaluates proposals for their technical and financial viability. Criteria for selecting towns and villages for the project depend on location, population and socio-economic characteristics e.g., number of schools, health services, economic activities, telecommunications signal availability and geographic obstacles. Tendering is conducted through the National Competitive Tendering procedures specified in the Public Procurement Act of the Republic of Ghana. Any company which implements projects to
Governance	Board of Trustees of GIFEC: 10 trustees that include representatives from the National Communications Authority (NCA), the Ministry of Communications, the parliamentary select committee on communications, a representative from each licensed telecom operator and the administrator of the fund. The Minister may direct the Trustees of the GIFEC on matters of policy.
Level of Activity	**High Activity** The fund has been actively disbursing funds since 2006. **No consistent financial reporting.** Under its Universal Access to Electronic Communications Programme, GIFEC oversaw the following initiatives: • Common Telecommunication Facility Project: Since 2006: Construction of towers for co-location by telecom operators to extend telecom services to underserved areas. 41 towers constructed. • Last Mile Initiative Project: Since 2006, in collaboration with USAID/Ghana and possibly UNDP, pineapple and citrus producing areas are targeted and provided with access to telecommunications/ICT services. One pilot project has been completed at Nsaakye in the Eastern Region. A second project is constructed at Georgefields near Kasoa in the Central Region. This is to be extended to cotton, mango, and rice producing areas. • Community Information Centres Project: project, which GIFEC has been implementing on behalf of the Ministry of Communications with funding from the HIPC Initiative. Establishing hybrid for-profit tele-centre and non-profit community resource centres targeting the general community members, school children, youth out of school, women and women's groups, private businesses, non-governmental organisations and local government authorities. By 2010, 120 CICs are at various stages of completion in 100 districts/municipalities. Under a cost-sharing agreement between the Ministry of Communication and the United Nations Development Programme, 79 CICs have been equipped with ICT equipment, network infrastructure and trained Centre Managers, making them operational. The remaining 70 districts/municipalities will each have at least one CIC as envisioned in GIFEC's strategic plan for 2010-2012. • Library Connectivity Project: Establishment of ICT-based Mobile Digital-cottages (MD-Cs) and Regional Digital Library Information Centres (RDLICs) in order to promote and facilitate access. • Rural Pay Phone Project: GIFEC intends to provide 12,000 rural payphones to underserved communities during the three year period 2010-2012 (the EQUATEL project). • Easy Business Connectivity Project: to enhance availability of seed financing on flexible and reasonable terms for entrepreneurs seeking to operate e-powered e-business centres. • Post Office Connectivity Project: to select 10 Post Offices with the requisite physical infrastructure to enable the delivery of basic Information Technology and telecommunication services in the pilot phase, then 70 Post Offices for Second Phase (2011-2012). • Disability Employment Project: implemented by GIFEC and NCPD is the Easy Business Centres for Persons with Disability. • Security Connectivity Project: to establish state of the art ICT Training Centre at the Prisons Training School.

- School Connectivity Project: providing educational institutions with high speed computers, printers, scanners, projectors and servers and linking them with internet access. The project started on a pilot basis in 2008. In 2009 GIFEC provided support to 50 schools. By 2010, GIFEC had supported two hundred and sixty-three (263) educational and training institutions. The plan was to provide ICT equipment and connectivity to two hundred (200) educational, vocational and training institutions between 2010-2012.
- Community Initiative Project: To establish state of the art ICT Training Centre for Rural Communities across the country and provide training in computer skills and literacy.
- Fishing Project: in collaboration with the Fisheries Commission and the National Canoe Fishermen Council, to introduce enhanced fishing techniques using state-of-the-art technology to address the fishing needs of the artisan fishermen – to be rolled out in 2012.
- ICT Capacity Building: 2010-2012, GIFEC intends to fund the provision of basic ICT Training to over 12,000 people in the underserved and unserved communities using the CIC facility.

GIFEC is collaborating with all the major telecommunications operators in the provision of Common Telecommunications Site Facilities in selected areas across the country under the Universal Access to Telecommunications Programme (UATP). The collaboration involves the award of subsidies to willing and eligible telecommunications operators for the provision of Common Telecommunications Site Facilities.

8.7

LESOTHO

LESOTHO	Year fund established: 2009
Overall Fund Structure and Operation	Lesotho Communications Authority (LCA) Universal Access Fund is perated by the Regulator. The Secretariat, a non-voting member of the oversight Committee, executes the decisions of the Committee and is responsible for the day to day running of the Fund. LCA serves as the Treasurer of the Committee.
Contribution Type and Frequency	• **1% of Net Operating Income of licensed operators on an annual basis.** • 25% of NRA operating surplus. • Fund received US$1.25 million seed capital from the Regulator in 2008. • Fund can also receive Government contributions and grants. • Universal Service Fund Committee is responsible for designating licensees required to make contribution and determines the amount.
Services Currently Authorised Under the Existing Framework	Policy and regulation, the primary objective is basic access for everyone through universal network coverage, although the Strategy 2007 also recognises the concerns of people with disabilities or disadvantaged groups. All villages with at least 150 households must have network coverage and communications service access points and all people must have a communications service point within a 4 km radius. The Communications Act 2012 delegates authority to the Fund to ensure access to basic domestic and international telephony services and internet, diverse range of radio and television broadcasting services, basic postal services. USFC may also decide to use fund towards infrastructure for unserved/underserved areas, tele-centres, internet exchange points, acquisition of satellite capacity for broadcasting, public broadcasting services, electrification of post offices, universal postal services.
Fund Allocation Process	Competitive Bid. The Universal Service Fund Committee decides on funds allocation. The fund recipient responsible for providing performance reports. LCA identifies USF sites and then issue RFPs. All licensed operators participate in the RFP (Request for Pricing) process. Other entities, such as broadcasters, service providers, content developers, public access ICT tele-centres, schools, hospitals, rural clinics and others will be eligible to receive funds from the USF depending upon the programmes and initiatives selected each year by the Fund Advisory Committee in conjunction with the MCST.
Governance	There is an independently constituted oversight Committee of the Board (representatives of Ministries of Communication, Local Government and Finance) which is responsible for strategic and policy level management of the fund and functions. The USF accounts are audited by the Auditor General and published in the LCA's Annual Report. All telecom operators are eligible.

Level of Activity	**Low activity** **Some financial reporting** There were 4 network coverage infrastructure projects completed in 2010/2011: • Three sites at Hloahloeng (Mohale's hoek); • One site at Litsoetse (Thaba Tseka) • Two sites at Makhunoane (Botha-Bothe) and • Two sites at Tsatsane (Quthing). In terms of impact the 2010/11 projects provided coverage to more than 16,000 people from 87 villages in the districts mentioned. The Internet Exchange Point: this initiative of the Fund is to facilitate the establishment of the Internet Exchange Point (IXP). This programme involved the provision of internet services to all institutions of higher learning. For 2012/13, the Fund is expected continue to focus on coverage, although it has been indicated that there are plans to roll out internet access centres but no activity has been reported since the 2011 annual report.

8.8

MADAGASCAR

MADAGASCAR	Year fund established: 1999 legal and administrative establishment: 2002 collection and disbursement.
Underlying Framework for Fund	• Act no. 96-034 of 27 January 1997. • Decree No. 99-191 relating to Modalities for Implementation and Funding of Access to Telecommunications Services (March 10, 1999) established the Fund. • Decree No. 2003-1068 on Extending the Objectives of the Telecommunications Development Fund (Nov. 4, 2003) and Decree No. 2004-329 Amending the Provisions of Article I of Decree No. 2003 1068 (March 16, 2004). • Act No. 2005-023 of 17 October 2005 on the Revision of Law no. 96-034 of 27 January 1997 on the Institutional Reform of the Telecommunications Sector identifies universal access and the lowering of costs as a principle goal, and directs the minister in charge of telecommunications and ICTs to establish a fund dedicated to the development of telecommunications and ICT, and support areas that are otherwise unserved.
Overall Fund Structure and Operation	Fonds de Développement de Télécommunications et TIC (Telecommunications and ICT Development Fund) administered by the regulator - Office Malagasy d'Études et de Régulation des Télécommunication (OMERT) as a separate account.
Contribution Type and Frequency	The Fund is to be funded from: • Annual contributions of operators, which are equal to **2% of their gross revenues** earned from operating public telecommunications networks and the provision of public telecommunications services • The government's general budget; • Public or private contributions to the fund; and • Local communities seeking to improve telecommunications in their areas.
Services Currently Authorised Under the Existing Framework	Included in universal service are: • Providing access to a public telephony network located no more than 10 km from the centre of a rural community of 500 or more persons; • Providing a public access point in an urban area that is within 2 km of all habitations; • Ensuring the free routing of emergency calls; and • Dial-up Internet access and directory services. The 2003 and 2004 Decrees extend the use of the telecommunications development funds for the study the possibility of international connectivity to undersea fibre and a national backbone.
Fund Allocation Process	The funds are distributed on a community-by-community basis, with the specific projects being defined by OMERT which determines which communities are in need of service and the level of subsidies necessary to achieve coverage, and submits a plan to the Ministry for approval. The list of projects is then submitted to the national fixed operators to enquire whether any of them will serve the areas. If none of the operators accept to take on the project without funding, the projects are to be attributed via a transparent and competitive selection process among interested operators. OMERT first runs a restricted tender process. Projects for which no qualified applicants were found are subject to an open competitive process.

Governance	Overseen by the Telecommunication Ministry. Fund accounts must be verified by an independent accountant.
Level of Activity	**Moderate activity** **No financial reporting** By the end of 2009, the USF had financed: • 1 VSAT for underserved communities; • Public access and private service to voice - the incumbent fixed operator; is eligible • 1 Access Region; • Districts and Communes; and • Public access to and Private Service for voice and Internet. Part of the USO is used to fund part of the PICOM project (a specific entity handling Telecommunication Ministry infrastructure projects, also funded by the World Bank). It is estimated that the major part of the Fund has been distributed to Telma under the subsidies process. Other example includes the Village Phone Project, where based on an agreement between Airtel and the Telecommunications Ministry, the Malagasy Government is supposed to contribute about 40% of the Village Phone (similar to tele-centre) equipment through the Fund.

8.9

MALI

MALI	Year fund established: 1999
Underlying Framework for Fund	Telecommunications Ordinance Nr.99-043 on September 30 1999, defined Universal Service in Art. 8, and in Art.12 stated that future decrees would define services covered by a Universal Service Fund. Telecommunications Ordinances Nr.2011-023 and Nr.2011-024 on September 28 2011 provided the framework for the activities and organisation of the Fund.
Overall Fund Structure and Operation	L'Autorité Malienne de Regulation des Telecommunications/TIC et Postes (AMRTP), an independent legal entity with financial and administrative autonomy, administers and manages the Fund.
Contribution Type and Frequency	**1% of annual revenues from licensed operators**
Services Currently Authorised Under the Existing Framework	The Fund was established to allow the offering of basic telecommunications services to all, including: national and international access, text, facsimile and internet access. The services must meet the requirements as set by the Regulator. Also, the telecom companies should provide access to a printed or electronic directory and to emergency numbers free of charge. Services should be provided in remote areas at a cost accessible to all. Health services, education and handicapped individuals should be considered priorities.
Fund Allocation Process	Public bidding process.
Governance	AMRTP is formed by a: • Board of Directors: seven members nominated by the Council of Ministries based on technical, legal and/or economical knowledge of the telecom market as well as new technologies. The President of the Republic selects three members from those nominated by the Ministers; the President of the General Assembly selects two members; and the President of the Financial, Cultural and Social Council selects the other two. • General Director: five members in charge of the day to day operations of the AMRTP. The members are selected from a public application call by the Council of Ministries.
Level of Activity	**Inactive** **No financial reporting** The Fund has not been used to date. There is a dispute currently underway between the AMRTP and the Government regarding the AMTRP's plans to allocate the funds to non-telecom related expenses incurred in the recent insurrections/civil unrest.

8.10

MAURITANIA

MAURITANIA	Year fund established: 2002
Underlying Framework for Fund	**Telecommunication Law** of July 11 1999 regulates the telecommunications market and services in Mauritania. The law also provides in its "General Dispositions" the definition for the provision of Universal Access Services to the people of Mauritania. **Decree Nr.2001-06** on June 27 2001 created the Universal Access Services Agency. The decree also establishes the accounting, financial and levy systems for the Funds. **Decree Nr. 2002-06** of February 7 2002, established the organisation and functioning of the Fund.
Overall Fund Structure and Operation	The overall Fund is administered by the Agency for the Promotion of Universal Access Services – APAUS (Agence de promotion de l'Accès universel aux services) which is in charge of implementing a progressive generalisation of essential services (water, electricity, telecommunications and ICTs).
Contribution Type and Frequency	APAUS receives money from the national budget, contributions provided by international agencies and other governments, and contributions from the telecom sector: **3% of the gross revenues** paid annually. Telecom contributions are to be used only to fund telecom programmes.
Services Currently Authorised Under the Existing Framework	The USF for Telecommunications was originally established to provide basic telecommunications services to all inhabitants of Mauritania through the establishment of call centres and community telephones to avoid long waiting periods and travelling long distances to access the services. Later, the services included not only basic telecom but ICTs access to be achieved by 2015 (Millennium Development Goals). The Fund has concentrated its efforts on providing services to 3,040 villages with populations over 100,000 and rural areas with a population of 1,000 in an area of 1,000,000 km^2 in the desert areas.
Fund Allocation Process	Public, open bidding process.
Governance	APAUS is an independent legal entity with financial autonomy, formed by: • General Board – formed by one representative from Ministry of Telecommunications, one from the Ministry of Finances, one from the Telecommunication Regulatory Authority, one professional representing the Professional Association, and representatives of all sectors involved (no number is provided). The Board Members serve for three years. The Board selects its President from a list provided by the Cabinet, and name and destitute the General Manager. • The General Manager – manages and coordinates all the work of the Agency, ensures all laws, decrees and norms are follow by the Agency and manages the UAF. • Technical managers: named and selected by the Board from list submitted by the General Manager as per the needs of the Agency.
Level of Activity	**Moderate to low activity** **No financial reporting** The telecommunications sector of the UAF is providing the following services[82]. However, no activity appears to have been reported since 2012. • Implementation of an Information and Telecommunications Centre for people with disabilities – training and services. • Multifunction platforms project – national reach (coverage) • Cyber cities project – projects to provide ICT services to the cities of Atar, Selibabi, and Akjoujt (already partially working). • Fibre Optic National Network – project to link regional capitals and provide international connectivity (African Coast to Europe - ACE cable). This project is in partnership with the World Bank.

82. www.access.mr

8.11

MAURITIUS

MAURITIUS	Year fund established: 2008
Underlying Framework for Fund	• Information and Communication Technologies Act 2001. • Fund formed under the Information & Communication Technologies Authority, ICTA and (Universal Service Fund) Regulations 2008 (as amended) (GN 206/2008).
Overall Fund Structure and Operation	• Administrative unit and account managed by the Executive Director of NRA (ICTA). • The Fund Administrator oversees Fund activities. • The Project Manager is responsible for analysing market conditions, developing proposed project plans and acting as liaison with USF funding recipients in the implementation and evaluation of approved projects. • Liaison officers: within the Authority (Engineers, attorneys, accountant, economist, etc.) are responsible for extending professional support and resources in their fields of responsibility to the management.
Contribution Type and Frequency	Either a percentage of turnover or a percentage of the price of every incoming call on each operator's network. From all operators, both fixed and mobile: • Annual contribution to be paid in monthly instalments by operator - **5% of gross revenue generated by operator from provision of international roaming service** for that month and • **US$ 0.025 on every minute of international calls** terminated by operator in that month. ICTA has also given grants to the Fund (29% of the overall value by the end 2009). ICTA is currently involved in legal proceedings with operators who have failed to pay.
Services Currently Authorised Under the Existing Framework	Public access to voice and Internet Increased broadband penetration Specialist services for people with disabilities. It is envisaged that specialised services at special tariffs should be provided to people with disabilities at no extra charges or even at below cost[83].
Fund Allocation Process	Competitive bidding process open to all operators. Bidding process open to all licensed ISPs to provide universal service and access to Internet- to install, provide and maintain Wi-Fi access. The bidding exercise is overseen by ICTA.
Governance	Board of NRA, upon recommendation of UASF Advisory Committee.
Level of Activity	**Moderate activity** **No financial reporting at present** due to ongoing discussions with operators who are refusing to pay the levy. By the end of 2009, funds have been invested for four Community Public Access Points. Ongoing project: Under Wi-Fi Mauritius, deployment of Wireless Fidelity (Wi-Fi) Network to include workstations with free internet access for citizens without the necessary terminal equipment across 10 Wi-Fi zones in five municipal councils and four district councils in Mauritius as well as an administrative building in Rodrigues was achieved in March 2012. The 2013 USF Budget includes providing visually impaired students with Braille personal computers free of charge.

83. ICTA – Consultation paper February 2004

8.12

MOZAMBIQUE

MOZAMBIQUE	Year fund established: 2004/ 2006 legal established. 2008 collection.
Underlying Framework for Fund	• Telecommunications Law No. 8 of 21 July 2004. • Decree No. 69 of 26 December 2006 approved the regulation of Universal access and Service Fund. Telecommunication Policy 2004. • Ministerial Diploma 79/2007 dated 4 July 2007 on the annual contribution to be paid to the Universal Service Access Fund by the telecom operators.
Overall Fund Structure and Operation	The Universal Access Fund, Fundo do Serviço de Acesso Universal (FSAU, UASF) is an internal unit and account under the regulator Instituto Nacional das Comunicações de Moçambique, regulatory agency (INCM) managed by the Executive Secretary of the UASF. The manager of the Fund reports to the Board of Directors of INCM.
Contribution Type and Frequency	• All licensed and registered entities rendering telecommunications public services must contribute **1% of net operating income of the previous year** to the UASF. • Operators who are operating Internet Cafes are exempt from contributions to the UASF. • Government. Development Partner (international donors) grants.
Services Currently Authorised Under the Existing Framework	Services covered: • Telephony and Internet services. • Public and Private Internet access and service. • Infrastructure deployment and service provision. Hospitals and schools located in rural areas can also benefit from the fund. The Fund's objectives are to promote service to rural areas at a fair and affordable price (publicly accessible telephones within all locales with more than 1,000 inhabitants as well as within 5 km of every rural inhabitant and Internet points of presence and public access to the Internet through telecentres in all District Centres).
Fund Allocation Process	Competitive Bid – least-subsidy requested.
Governance	Board of INCM oversees the activities and decisions of USAF.
Level of Activity	**Limited activity** **No financial reporting.** • Mozambique undertook an Internet service pilot project to provide four District Centres in the provinces of Zambézia and Nampula with Internet POPs. The internet tender was won by Mozambican broadband wireless operator INTRA Lda. • A similar telephony pilot tender did not receive any bids and was therefore unsuccessful. • US$200,000 was disbursed in 2008 for a transmission via satellite project of mobile telephony covering 5 km from the centre of a district of Matchedje on the border with Tanzania. • The World Bank financed certain tele-centres pilot projects and a Community Public Internet Access Points project. • Mcel won a tender in June 2011 to build BTS sites in 14 localities, in a project of approx. US$4 million.

8.12

NIGERIA

NIGERIA	Year fund established: 2003 legal establishment. 2004 collection. 2007 administrative disbursement.
Underlying Framework for Fund	The Nigerian Communications Act of 2003 addresses the concept of universal access and universal service and provides guidance to the Nigerian Communications Commission (NCC) on the development of universal access/service policies and directs the establishment of a Universal Service Provision Fund. The 2007 Universal Service and Universal Access Regulations established the USP Fund (USPF).
Overall Fund Structure and Operation	Since 2007, the Nigerian Universal Service Provision Fund (USPF) is a separate entity managed by the Secretary of USPF.
Contribution Type and Frequency	Operators do not contribute directly to the USPF. Operators are required by a licence condition to **pay 2.5% of net operating revenue, (Annual Operating Levy, AOL) to the NCC on a quarterly basis. The NCC, in turn, contributes 40% of the AOL to the USPF for its activities.** According to the 2007 Regulation, the USP fund is to be financed based on **1% of net revenues** (net of interconnection payments) of the licensees. NCC has the discretion to increase or decrease contribution to the USPF upon consideration of the USPF operating expenses and based on recommendation made by USPF. The USPF may be funded from other sources: • Monies appropriated to the USPF by the National Assembly; • Gifts, loans aids and such other assets.
Services Currently Authorised Under the Existing Framework	The objective of the 2003 Coms Act is encouraging the installation of network facilities and the provision of network services and applications to institutions in unserved and underserved areas or for underserved groups. Universal service covers the following services: • Individual mobile-cellular service • Public mobile payphone service; • Broadband • Tele-centres • Schools (primary, secondary post- secondary) • Health centres • Emergency services • Special services for persons with disabilities and elder persons • Community Centres • Government offices Currently, the Fund has four programmes: • Universal Access Programme • Universal Coverage Programme • Universal Service Programme • ICT for Development Programme
Fund Allocation Process	The USP Secretariat is required to undertake an analysis to determine formally where fund money should be directed and specifically the service scope to be applied. Projects are allocated through a competitive bidding using different methods: • Competitive • Combination quality and cost selection • Competitive, least subsidy requested from qualified bidders • Proposal by eligible candidates & evaluation by USPF.
Governance	USPF Board (Chaired by the Minister with representation from NCC) supervises and provides broad policy direction for the management of the USPF. It appoints and removes the USP Fund managers and auditors in consultation with the NCC. The USP Fund managers report on a quarterly basis to the USP Board and the USP Secretariat on the status of the fund including a report detailing the financial situation and performance of the fund. Due to a number of operating challenges and perceived inefficiencies in the Fund (as identified by the fund administrators themselves), a process is currently underway to revamp the way in which the Fund operates and several pilot trials are underway.

Level of Activity	**High activity** **No consistent financial reporting.** Approximately US$140 million per annum in disbursements from levies. However, disbursement has been held up in some years due to delays in Parliamentary budget approval USPS Activities and Projects in 2009 • Community Communications Centre Project • Accelerated Mobile Phone Expansion Programmes • Co-location Infrastructure Project • Base Transceiver Station Project • Solar-Powered GSM for Rural Network Project • Rural Broadband Initiative Project • Backbone Transmission Infrastructure Project • Schools Access Project • Tertiary Institution Access Project • GIS mapping of ICTs Infrastructure, Gap Analysis and Subsidy Estimates in Nigeria

8.14

NIGER

NIGER	Year fund established: 1999
Underlying Framework for Fund	Decree no. 99-45 issued 26 October 1999, amended by Ordinance no.2010- 89 of 16 December 2010 created a Universal Access to Service Fund (The Telecommunications Development Fund).
Overall Fund Structure and Operation	Although originally an account of the Regulator - l'Autorité de Régulation Multisectorielle (ARM), an autonomous entity has been recently established to manage the fund but is not yet functioning.
Contribution Type and Frequency	• After 2003: **4% of annual net (gross) revenue** from all licensed operators (some have failed to contribute). • In the first two years of the licence, mobile operators were required to make contributions of 35 million CFA for the year 2002 and 70 million CFA for the year 2003. • In addition, a joint funding system has been established by the ITU, the World Bank, the United Nations Development Programme (UNDP), the Organisation Internationale de la Francophonie (OIF), the Government of Niger and several non-governmental organisations.
Services Currently Authorised Under the Existing Framework	Telecommunications infrastructure and applications in rural areas.
Fund Allocation Process	There is no visibility on the fund allocation rules. All contributors (i.e., licensed operators) are eligible to participate. According to Decree no. 99-45, the regulatory authority lays down optimum standards for the selection of operators that will provide universal access to services. By public tender, the regulatory authority allocates the tasks of implementing universal services to selected operators, who are paid from the Fund.
Governance	Ministry of Communications.
Level of Activity	**Inactive** **No financial reporting**

8.15

SOUTH AFRICA

REPUBLIC OF SOUTH AFRICAT	Year fund established: 1997
Underlying Framework for Fund	• Telecommunications Act, 1996. Telecoms Amendment Act of 2001 • Associated Universal Service and Access Fund ("USAF") Regulations of 1999 • Electronic Communications Act, 2005 • USAF Contributions Regulation of 10 February 2011 • Draft Broadband Policy, 2009
Overall Fund Structure and Operation	USAF is administered by Universal Service and Access Agency of South Africa ("USAASA"), a separate legal entity responsible for promoting universal service and access in the country.
Contribution Type and Frequency	• USAASA is funded by contributions from licensed operators of electronic communication services and networks and broadcasters (the latter may offset their contribution against a contribution to a broadcasting sector Media Development and Diversity Fund). • ICASA determines the basis of operators' contributions, which may not exceed 1% of their annual turnover. • Currently, the contribution is set at **0.2% of annual turnover** (total revenue from licensed activity, less service provider discounts, agency fees, interconnection, and facilities leasing charges, government grants and subsidies). • ICASA collects the contributions and sends them to the National Treasury.
Services Currently Authorised Under the Existing Framework	ECA stipulates that the Fund should be used exclusively for payment of subsidies to: • Assist needy persons towards the cost of broadcasting and electronic communications services • Public schools and public Further Education and Training Institutions for the procurement of broadcasting and electronic communication services and access to electronic communication networks; • Establish and operate broadcasting services and operation, including training of and the payment of allowances to personnel, of centres where access to electronic communication networks can be obtained; • Any broadcasting service licensee and electronic communications network service licensee for the financing of the construction or extension of electronic communications networks in under-serviced areas.
Fund Allocation Process	• Competitive Bid. • USAASA manages the funds and identifies projects. • Any area with less than 5% penetration is deemed underserved and is eligible for USAL providers.
Governance	The Minister of Communications appoints the USAASA Board. The Board retains full and effective control and monitors the executive management and decisions of the Agency. However due to the widespread allegations of corruption and mismanagement, senior members of the fund management team were suspended in September 2011 and a forensic audit was ordered. Subsequently, some of the suspended members under investigation resigned; the Minister appointed a new board in September 2012 and a search for a new CEO was completed.
Level of Activity	**Moderate activity** although most activities were suspended for almost a year dating from Sept. 2011 when the board was suspended. **Limited financial reporting** (reports are published but lack full financial detail). This appears to be changing. Projects have consisted of tele-centres, cyber labs, multi-purpose community centres/ Thong service centres and under-serviced area licences (USALs). There were 27 underserved areas and USAL projects in seven of these areas by the end of 2007. USAASA issued licences to bidders winning USAF subsidies. Some programmes focus on people with disabilities, for example, the access centre in Tembisa. The following projects were earmarked for funding from the 2010 allocation: • Implementation of handover strategy for Community ICT Access Centres and E-School Cyber labs • Facilitation of Internet connectivity to schools and Access Centres • Implementation of Rapid Deployment of new Access Centres strategy • Development of a Universal Service and Access Fund Manual • Subsidise internet connectivity at the FET colleges

8.16

RWANDA

RWANDA	Year fund established: 2004
Underlying Framework for Fund	The Universal Access Presidential Order 05/01 of 13/03/2004 established the UAF (Universal Access Fund).
Overall Fund Structure and Operation	The Universal Service Fund is an administrative entity and with an account administered by the regulator, Rwanda Utilities Regulatory Agency.
Contribution Type and Frequency	**2% of Gross annual revenues**, net of interconnection payments from all operators. The Fund has received numerous grants from international donors, mainly the World Bank. Their contributions formed 68% of the total funding by the end of 2009.
Services Currently Authorised Under the Existing Framework	• Public voice access and private voice service • Public access to Internet, Private Internet service • 2008 focus was on lowering bandwidth costs and the extension of ICTs in rural and poor urban areas. Network extension is being accomplished through connecting key Rwandan institutions.
Fund Allocation Process	Competitive bidding process based on least subsidy requested from qualified bidders (operators and ISPs). Funds also allocated through the Ministry of Education (to PC providers for the One Laptop per Child Programme).
Governance	Board of the NRA.
Level of Activity	**Moderate activity** **No financial reporting** By the end of 2009 the following projects were underway: • Rural Telephony Project • Low prices for Internet connectivity and Public access to Internet • One Laptop per Child Programme More recent projects include: • VSAT connectivity subsidy to all districts in remote and rural areas; • Bandwidth connectivity of 30 Tele-centres managed by the Rwanda Development Board; • Connectivity of secondary schools in remote and rural areas; • Connectivity subsidy to 45 sites for the police in rural and remote areas; and • Connectivity of some private institutions and local business operating in rural and remote areas; Due to the high cost of VSAT connectivity and availability of a fibre network backbone, since 2012 the trend is to switch from VSAT to fibre optic networks, whenever they are available in the rural areas. As of June 2012 all districts in rural areas, immigration services at the border posts, police, military barracks and some high schools and all tele-centres had already switched to fibre (112 out of 180 subsidised sites). Recent planned digital inclusion projects include: • Connectivity of all universities, public and private, using RWEDNET (Rwanda Education Network • Connectivity of all technical secondary schools and all technical colleges • Connectivity of orphanages in two districts

8.17

SENEGAL

SENEGAL	Year fund established: Pre Fund: 2001 Fund: 2007
Underlying Framework for Fund	Telecommunication Law in 2000 established the general framework. In 2001, the Telecommunications and Posts Regulatory Agency (ARTP) was created and a Universal Development Fund (UDF) was put in place to increase telecom coverage in remote areas. In 2004, the government began the liberalisation of the telecommunications market. A Presidential Decree in 2007 (2007-593), established the telecommunications Universal Service Funds and defining the rules governing and the mechanisms for operating the fund.
Overall Fund Structure and Operation	The Universal Development Service Fund for Telecommunications (FDSUT) is administered by the Regulatory Authority under the supervision of a Steering Committee.
Contribution Type and Frequency	A special tax called Contribution to the Development of Telecommunications Universal Service and Energy Sector (CODETE) sets the contribution at **3% of sales** excluding taxes from all energy and telecom players. This contribution is shared between telecommunications (5%) and energy (95%). The fund also receives contributions from **operators' licences (0.15% of their turnover).**
Services Currently Authorised Under the Existing Framework	Affordable telephone service even in the most remote areas of the country, directory enquiry services, telephone directories, free of charge routing of calls to emergency services, and the installation of public phone booths throughout the country. Major efforts will be dedicated to rural and low income level regions.
Fund Allocation Process	Open bidding
Governance	Steering Committee (13 members) chaired by a representative of the President of the Republic select a General Director who is in charge of the day to day activities of the Fund.
Level of Activity	**Inactive** **No financial reporting** There is no project related disbursement as of 2010. Bridging the access gap in networks and telecommunication services (telephone and internet) throughout the national territory was the goal.

8.18

SWAZILAND

SWAZILAND	Year fund established: 1990 legal establishment. 2001: operational.
Underlying Framework for Fund	• The Government established a Universal Service Obligation Fund under the licence awarded to Swazi MTN. • Universal Service Obligation Fund is to be established by Electronic Communications Bill 2009. • No policy in place.
Overall Fund Structure and Operation	Universal Service Obligation Fund is administered by the Universal Service Obligation (USO) Committee under the Regulator, Swaziland Posts & Telecommunications Corporation (SPTC) / the Swaziland Communications Commission (SCC) as an independent regulatory authority. According to the Electronic Communication Bill 2009, the committee is referred to as 'Commission', responsible for developing implementation strategy of USF in consultation with the Minister.
Contribution Type and Frequency	Contributions from a **general levy on all operators' revenue**. As per the Electronic Communications Bill 2009, Commission shall contribute all remaining unused funds or revenue to the Universal Service/ Access Programme.
Services Currently Authorised Under the Existing Framework	According to the Electronic Communication Bill 2009, the fund is to provide affordable telecom to the public, telephone directory, public pay phones based on geographical end user needs, and specific measures for disabled users and low income users. The proceeds of the original Fund were to be utilised by Swazi MTN for: • Installation and maintenance of payphones; • Implementing; • Handset subsidies; and • Installation of base stations in four remote locations in the country.
Fund Allocation Process	According to Electronic Communication Bill 2009, the Commission shall determine the most efficient and appropriate approach for ensuring the implementation of universal service.
Governance	Ministry of Information, Communications, and Technology
Level of Activity	**Inactive** **No financial reporting** **US$6 million** had been disbursed by 2009. Since then, the Fund has been inactive.

8.19

TANZANIA

TANZANIA	Year fund established: 2009 legal establishment. 2010: operational.
Underlying Framework for Fund	Policies envisaging a Universal Service Fund: • National Telecommunications Policy of 1997. • Tanzania Development Vision 2025 and Rural Development Strategy 2001. • National ICT Policy of 2003. The Universal Communications Service Access Act 2006 established the guidelines for the creation of the Universal Communications Service Access Fund. Universal Communications Service Access Fund Regulations, 2009.
Overall Fund Structure and Operation	None
Contribution Type and Frequency	**0.3% of yearly gross operating revenue** from all communications service operators (including ISPs, post and courier companies). So far, the Fund has not been successful on collections from operators. Other sources for the Fund: • Government and the regulator; • Parliamentary allocation; and • Development partner grants: current funds include a World Bank loan.
Services Currently Authorised Under the Existing Framework	The mandate under the law is to identify the rural and urban underserved areas and designate universal service areas.
Fund Allocation Process	Competitive Tendering and reverse action. All network facility operators are eligible. Approved projects need to satisfy that they will adequately deal with: • People with disability; • People with special needs; • Delivery of quality communications services; • Pricing of services in terms of affordability; • Making available and accessible communication services to all people.
Governance	n/a
Level of Activity	**Low activity** **No financial reporting** The Government of Tanzania received a credit from the International Development Association towards the cost of Tanzania Communications Infrastructure and e-Government Project to cover eligible payments under the Contract for Rural Telecommunications Service Pilot Project 2011: • Enabling Environment (US$14 million) – policies • Connectivity (US$60 million) - extension of coverage and access to ICT services in rural areas • e-Government Applications (US$22 million) • Project Management Support (US$4 million) The Fund is working on pilot projects financed by the World Bank funds; it is collecting and verifying coverage information and the operators' two year projections in order to identify underserved areas that will be used for the pilot project (2012). In January 2012, UCAF announced a bid to cover certain remote areas. The tender did not go forward as bidders deemed the maximum subsidy of US$ 820,000 inadequate (in addition to a lack of geo-marketing and technical survey that would have been needed[84]) in view of both the initial capital expenditures and ongoing operating expenses required to maintain sites that may not be economically viable, given the low number of POPs in these areas and lack of access roads.

84. Typically, if fund managers do not have the requisite in-house expertise to carry out such activities, they would be required to hire consultants to assist.

8.20

TOGO

TOGO	Year fund established: 2001 legal establishment. 2002: operational.
Underlying Framework for Fund	• Decree No. 2001-195/PR of September 16 2001 describes the mechanisms for using a special account for the universal service. • Decree 2001-007/PR of 07 February 2001 on fees payable by operators and providers of telecommunications services. • Replaced by: Decree No. 2006-041/PR on fees payable by operators and providers of telecommunications services.
Overall Fund Structure and Operation	Operators are allowed to submit their bids as part of programmes selected by the Ministry and can negotiate agreements regarding the realisation of the US. The new vision set by the Government in its policy statement in May 2011 intends to involve stakeholders in management processes.
Contribution Type and Frequency	**2% of annual gross revenues** net of interconnection payments from all operators (which corresponds to 66.66% of the annual charges levied on all operators, which are 3% of their revenues). In the sectorial policy declaration adopted by the Government on 18 May 2011, it is expected that reliance on other funding sources is necessary to accelerate the achievement of universal service.
Services Currently Authorised Under the Existing Framework	The sums allocated to the Universal Service should be used: • for development of rural telephony (a minimum grant is awarded by the Regulatory Authority to the bidder following a tender); • to cover losses related to the implementation of service to communities not yet served by an operator (communities with low density); and • For the installation of public telephones in areas considered to be disadvantaged by the Minister after consulting the Regulatory Authority.
Fund Allocation Process	Togo employs a 'pay or play regime'. The Regulator runs an annual survey in order to determine 'unserved areas'. Projects are awarded following a proposal by eligible candidates and evaluation by NRA based on the least cost subsidy. Operators providing Universal Service can be compensated for: • Net cost of the routing of calls between telephone subscribers; • Net cost of providing pay phones nationwide. The free routing of emergency calls is not eligible for compensation. Only the costs incurred for the implementation of an emergency call centre, if asked to do so by the State, is charged to the US account. The Minister for Telecommunications after consulting with the Regulatory Authority can decide to compensate for other special US obligations.
Governance	Ministry for Telecommunications.
Level of Activity	**Moderate activity** **No financial reporting** • As part of the 2008 Programme, Togocel signed an Agreement with the Regulator to provide service in several unserved zones for public and private voice and Internet access and service. • Three programmes serving rural communities have been published by the Ministry of Telecommunications. The compensation was awarded to operators agreed to carry out these programs. • Spontaneous investments made by operators for projects eligible under the universal service between 2002 and 2005 were compensated. • About 190 rural communities were already covered under spontaneous investments by the operators between 2002 and 2005 and under the 2008 and 2009-2010 programmes. • 183 other locations are planned to be covered based on three agreements signed between the Ministry and the operators on 3 May, 2012 under the 2011-2012 programme. • The 2013 programme was to be published at the end of 2012, taking into account the areas remaining uncovered after the achievements of 2012. However, as of April 2013, this report has not yet been published. However, the ARTP did publish a two page synthesis of the Implementation of the Universal Service Plan, mentioning the expansion of services to rural communities and under-serviced areas but with no specific forecast or targets.

8.21

UGANDA

UGANDA	Year fund established: 1997. 2001: legal establishment. 2003: operational.
Underlying Framework for Fund	• The 1997 Uganda Communications Act. • Rural Communications Development Fund (RCDF) established under the Communications (Establishment and Management of the Rural Communications Development Fund) Instrument, 2002. • The 2005 Communications (Universal Service) Regulations outline a comprehensive universal service policy for Uganda. • In 2002, the UCC adopted a RCDF Manual of Operating Procedures to guide how the Board should manage and administer the fund.
Overall Fund Structure and Operation	Rural Communications Development Fund is an internal unit of UCC managed by the Manager of the RCDF, appointed by the UCC. A Board appointed by and reporting to the UCC is responsible for the execution of the strategy for RCDF.
Contribution Type and Frequency	**1% of gross annual revenue**, net of interconnection payments, from all operators, including the postal service couriers and ISPs. The RCDF may also receive financing from the Uganda Parliament, as well as donations and grants from development partners, and gifts and loans. According to the 2005 Regulations, UCC should establish a mechanism for sharing the net costs of supporting the universal service obligation (i.e., difference between the net cost for an operator of operating with the universal service obligation and operating without the universal service obligation) such that the universal service obligation does not represent an unfair burden.
Services Currently Authorised Under the Existing Framework	Rural Communications Coverage and Internet Services. Funds are available for areas where service provision is not feasible or unlikely to be provided by the operators in the next 1-2 years without subsidy. The universal service obligations include: • Emergency and free services • Operator assistance and directory enquiry services • Services for people with disabilities • Basic postal services; • Reasonable levels of access to payphones for all Ugandans on an equitable basis
Fund Allocation Process	Operators can access the fund through competitive public open bidding when a request for a bid is issued – usually based on least subsidy requested. UCC also enters into Public/Private Partnerships to implement selected projects.
Governance	Board of the RCDF: consists of representatives of the UCC, the Uganda Postal sector, Uganda Consumer Protection Association, Uganda Institution of Professional Engineers, the Uganda Institute of Bankers, and the Ministry of ICT.
Level of Activity	**High activity** **Financial reporting** Funds have been available for areas where service provision is not feasible or unlikely to be provided by the operators in the next 1-2 years without subsidy. 154 underserved sub counties of Uganda have been identified and divided into 3 universal access areas. Between 2003 and 2009, the focus of RCDF projects was on ensuring access to ICT services for the underserved areas. Subsequently, the RCDF project focus shifted to ensuring usage of ICT services. Approximately 5,482 projects have been accomplished by the end of 2010/11: • 106 Internet cafes • 175 Health ICT facilities • 78 ICT training centres • 76 Internet POP • 13 Multi-Purpose Community Tele-centres (MCTs) • 45 Postal Tele-centres • 708 School ICT Labs • 78 Web portals • 4,099 Public pay phones • 90 GSM sites • 6 Content development • 2 Local governance • 6 Unique projects

8.22

ZAMBIA

ZAMBIA	Year fund established: 1996-2009 establishment. 2009 operational.
Underlying Framework for Fund	• ICT Act 2009, Section 70 • No secondary legislation enacted yet • Draft Universal Access Policy 2009 • Previously, the Telecommunications Act of 1994 addressed the concept of universal access to telecommunications services by mandating the Communications Authority to take all reasonable steps to extend the provision of telecommunications services throughout all rural and urban areas of Zambia, including emergency service, public call box services, and directory information services. However no secondary legislation was enacted to support management and administration of the Fund.
Overall Fund Structure and Operation	• Originally under the Regulator Communications Authority of Zambia (CAZ), now called the Zambia Information and Communications Technology Authority (ZICTA). • ICT Act 2009 establishes an Independent Agency for USF. • The Fund shall be managed and administered by a Fund Manager appointed by ZICTA. • The Fund Manager shall each year publish details of the activities, the contributions to, and allocations from the Fund within three months at the end of the financial year.
Contribution Type and Frequency	• Prior to 2009, CAZ was raising money for the Fund (Board Resolution) through annual licence fees remittance from all operators (holders of Individual Network and Service Licences and holders of Class Network and Service Licences). • Operators would pay Regulatory Fees: **Individual Network Licence [2%] and Individual Service Licence [3%] on Annual Gross Turnover (less interconnect and VAT).** • Since 1998 CAZ has been **retaining 10% of its revenue from the annual licensing fee** as part of Universal Service Development Fund. • In February 2009 ZICTA created a separate Bank Account for the universal access funds. • Policy and Regulations once in place will determine breakdown from Regulatory fees to be allocated to universal access fund pool. • Current pool of universal access funds are allocated from Regulatory fees by decree of the ZICTA Board. Other sources: • Any monies appropriated by Act of Parliament for the purposes of the Fund. • Any other monies to which the Fund may be lawfully entitled may also be used.
Services Currently Authorised Under the Existing Framework	Main objectives of universal access: • Promote accessibility to ICT facilities and service to all residents in Zambia • Promote affordability of ICT services to all citizens in terms of pricing • Promote availability of ICT facilities and services nationwide The overall objective of the 2009 ICT Act is to promote the widespread availability and usage of electronic communications networks and services through funding to be provided for basic services to unserved or underserved population segments: • Rural connectivity • Road accessibility • Renewable energy / solar projects • Rural electrification • Payphone rollouts
Fund Allocation Process	• Allocation process not yet determined. • Tender bid and Fund direct financing through purchase of ICT equipment for projects.
Governance	The Minister shall cause an annual statement of the income and expenditure of the Fund to be prepared and laid before the National Assembly.

Level of Activity	**Inactive** **No financial reporting** Fund not active yet, though a number of projects have been implemented by CAZ and ZICTA under the guise of universal access. Funds have been allocated in the past at ZICTA's discretion. First disbursement to LinkNet done by the Regulator. US$65,000 has been disbursed in 2009 - ZMK1B was given to finance three rural multipurpose tele-centres. Projects implemented by ZICTA has included: • The planned construction of over 200 Communication Towers in rural and unserved areas of Zambia. (This has not been done and the tender was cancelled in preference for a collaborative approach with operators. For example, Airtel has since deployed 174 rural sites. ZICTA has supported this through lease acquisitions and payment of rates and rent as applicable.); • Establishment of Multi-purpose Community Tele-centres in over 15 selected areas in the country; • Providing last mile Optic Fibre connection to the Copperbelt University, University of Zambia and Mulungushi University under the Zambia Research and Education Network (ZAMREN). ZICTA is currently focusing on the following projects: • Multi-purpose Community Tele-centres (MCTs) to provide access to basic ICTs and telecommunications service in various rural outposts in Zambia; • GSM services including funding network expansion to identified rural areas of each operator. The Authority is expected to fund sharable infrastructure such as towers and site energy. (This has not taken off) • PoPs to extend Internet service provision in rural areas. (This has not taken off); and • Computer labs in schools. In 2011, ZICTA set aside ZMK 59 billion (over US$10 million) from the Universal Access Funds for the installation of communication towers throughout Zambia that will also be used to connect schools. ZICTA has not invited submissions after March 2011. However, Airtel, for example, is currently accessing funds through an ad hoc arrangement - the 350 Universal Access rollout project.

8.23

ZIMBABWE

ZIMBABWE	Year fund established: 2001
Underlying Framework for Fund	• Postal and Telecommunications Act of 2000 provided for the setting up of the Universal Service Fund. • Policy on Universal Service 2001. • Regulations of 2001, required operators to make a contribution towards the Universal Service Fund, as a percentage of their Gross Turnover. • Postal and Telecommunications (Universal Service Fund) Regulations, 2005.
Overall Fund Structure and Operation	Universal Service Fund (USF) as an internal unit and account at the Regulator, the Postal and Telecommunications Regulatory Authority of Zimbabwe (Potraz), is managed by the Board of Trustees of Fund as part of the Regulator and Deputy Director General of NRA.
Contribution Type and Frequency	**2% of Gross Annual Revenues** from all operators. Potraz can contribute through money appropriated by an act of Parliament and surplus funds at the end of the regulator's financial year.
Services Currently Authorised Under the Existing Framework	In 2001, Universal Service Obligations were imposed on each Operator: • Roll out targets in under-serviced areas; • Provision of public payphones; • Provision of access to public emergency call service and directory information service; • Operators to provide services throughout the country including rural areas and at Community Centres in under-serviced areas. • Fund to finance provision of services in remote areas.
Fund Allocation Process	Public bidding process.
Governance	Board of NRA.
Level of Activity	**Low activity** **No financial reporting** Targets not achieved due to economic and political situation. Ministry of Finance decided in 2010 to use unused funds for: • Fibre optic backbone : • Extension of cellular telecommunication services in rural areas; • Improving access to ICT in under-serviced areas and communities as well as schools in both rural and urban areas; and • E-Government In 2011, Potraz issued a bid to install passive telecommunication infrastructure in designated rural areas. First investments in 8 provincial cities for the remote network coverage started in 2011.

09.

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