UNIVERSAL SERVICE FUND AND DIGITAL INCLUSION FOR ALL STUDY

June 2013

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PART I

1. INTRODUCTION AND OVERVIEW

1.1 The USF Concept

The underlying concept of Universal Service is to ensure that telecommunications services are accessible to the widest number of people (and communities) at affordable prices. As has been widely discussed in a number of publications, the concept of universal service is underpinned by the three following 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.

There are a number of different approaches used by various jurisdictions to address universal service requirements. These include[1]:

- Market based reforms
- Mandatory service obligations
- Cross subsidies
- Access deficit charges
- Private public partnerships (PPPs)
- Universal funds

However, increasingly over the last two decades, telecommunications administrations and national regulatory authorities (NRAs) have been turning to the concept of a specific universal service funding mechanism designed as an incentive to encourage operators to assist these administrations in achieving their universal service goals. This funding mechanism is referred to as a Universal Service Fund ('USF').

1.2 How Does a USF Operate?

USFs are typically funded via some form of contribution mechanism from telecommunications service providers/operators. In the majority of cases, the operator contributions are in the form of a levy based on a percentage of annual operating revenues[2]. In some countries, the USF fee is not a separate fee, but rather, a portion of an overall annual regulatory fee. The portion of the annual regulatory fee that is apportioned to the USF is sometimes fixed, but in other cases, the USF fee may be subject to annual review and calculation. In addition to operator levies, there are frequently other sources of funds including, but not limited to, licensing fees, full or partial proceeds from spectrum auctions, direct contributions from government budgets, contributions from international agencies such as the World Bank, regional development banks, etc.

[1] ICT Regulation Toolkit Chapter 5 – Universal Access

[2] In many cases, there are some exclusions from the calculation of the gross revenues (e.g., interconnection fees, handset taxes, etc.)

The manner in which the fees are collected and subsequently managed varies significantly from jurisdiction to jurisdiction. For instance, the fees may go directly to the USF or USF administrator. Alternatively, they may be collected by the NRA and then subsequently transferred to a Fund manager/administrator. From that stage on, there are many variations as to how a USF is operated and managed.

1.3 USF Study and Mandate

With all of the possible variations in USF management to be considered, the ITU has carried out this extensive study on USFs in order to provide an in-depth analysis of both the success factors as well as the challenges faced by a number of the existing USF models. The study focuses on the following critical elements:

- A global study of 69 countries in which USFs are currently in existence or are in the final planning stages;
- An overview of the existing regulatory frameworks that govern these existing or planned USFs;
- An examination of the success factors as they relate to successful USF management
- An overview of challenges and restrictions of some existing USFs with recommendations regarding possible improvements, where feasible, with respect to the overall management of the funds;
- An examination and review of best practices of the existing USFs along with recommendations regarding fund parameters and characteristics that would constitute an 'ideal' fund;
- An examination of the extent to which digital inclusion for persons with special needs is or is not addressed under current USF schemes (e.g., funding the connectivity and equipment of anchor government institutions used as public Internet centres; subsidizing the cost of ICT access for poor rural women and persons with disabilities; and/or providing digital literacy training to women or other population segments and training on the use of accessible ICTs to persons with disabilities);
- Development of a blueprint/proposed plan for the improved and enhanced management and administration of existing funds and for the development of new funds;
- A high level overview of some alternative methods being utilized to achieve universal Broadband service,; and
- Establishment of a series of conclusions, recommendations and best practices to be shared with the regulators for USF administrators with the objectives of: i) enhancing current USF management; ii) encouraging improvements and modifications to the existing USF regulatory frameworks and iii) providing suggestions for funds either in the process of being established or that will be established in the future .

1.4 Report Focus and High Level Findings

While this report examines a number of different elements, the major focus is to identify success factors contributing to the performance of many existing funds as well as current challenges and pitfalls that can be overcome in others. In addition, the report presents best practices in the administration of USFs with a view to strengthening and enhancing the reach of USFs going forward. These elements are addressed in this, **PART I** of the report. In **PART II – Section 5**, the report examines the widespread need for digital inclusion. **PART III – Section 6** contains the detailed information tables with respect to the **69** countries included in the USF study. In addition, **PART III – Section 7** of the report provides several brief snapshots of alternate means adopted in some countries in order to achieve universal broadband coverage where a **stand-alone** USF scheme has not been implemented.

The summary table below provides an overview of the regional distribution of the funds studied and, at a very high level, illustrates some of the characteristics of the funds on a regional basis. This table is followed by two figures that provide a pictorial view of the information contained in the table. It is important to note that with the exception of the 'Inactive' category, the reference to the 'activity level' of the fund is not a reflection of success or the need for improvement; it is merely indicating current activity level as regards projects in progress or projects being completed. The parameters used

to classify funds as having low active, moderate activity or high activity are as follows:

- high activity – more than 15 applications of the USF in progress or completed
- moderate activity - 6 to 15 applications of the USF in progress or completed
- low activity – less than 5 applications of the USF in progress or completed

In the case of the use of the term 'inactive'[3], this can be manifested in a number of ways:

- The fund has been created through legislation and responsibilities defined, but the fund structure and processes are not yet in place.
- The fund has been created through legislation and responsibilities defined but the fund structure and processes are not yet in place although USF levies are being collected.
- The fund was active / functioning at some point in time, but activity has ceased or has been suspended.

Table 1 – Overall Profile of 69 Funds Studied

Region	Africa	Arab States	Asia Pacific	Europe and CIS	The Americas	TOTAL
Total Number of Funds Studied	22	7	16	8	16	**69**
Funds that Permit Broadband	4	4	9	2	8	**27**
Number of Funds with High Activity	4	2	8	3	9	**26**
Number of Funds with Moderate Activity	6	2	2	1	1	**12**
Number of Funds with Low Activity	5	0	1	4	3	**13**
Number of Inactive Funds	7	3	5	0	3	**18**
Funds that Include Tele-centres or Community ICT Centres	10	3	5	2	7	**27**
Funds with Inclusion for Persons with Disabilities	9	1	5	5	4	**24**
Connectivity of Anchor Institutions*[4]	8	2	6	1	8	**24**
Funds with Special Inclusion for Women*	1	0	3	0	0	**4**
Consistent published financial reporting	2	1	4	2	8	**17**

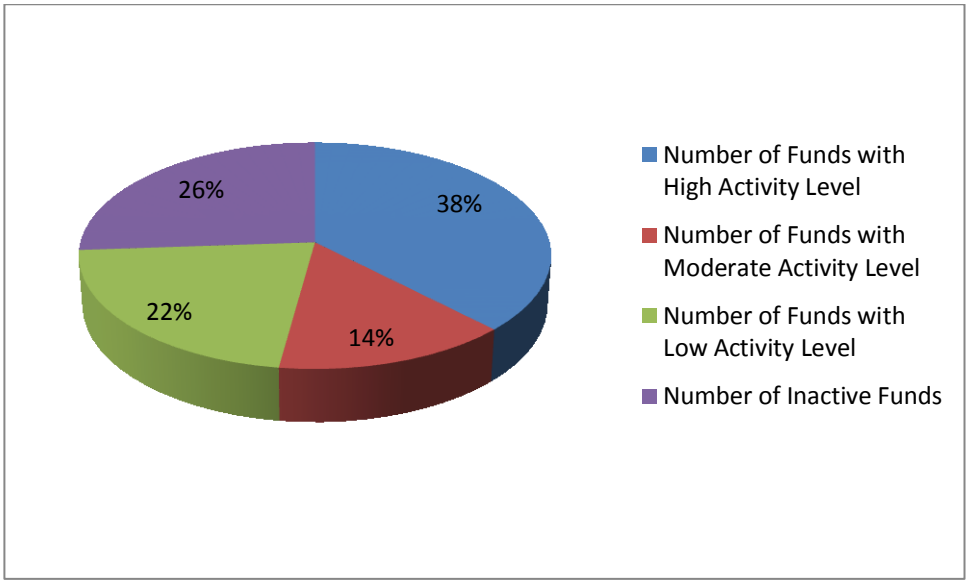
* Although a provision exists in the policy/framework, this does not necessarily mean that projects are in the planning stage or in place.

[3] The term 'inactive' **excludes** the countries in which the law addresses USFs but where the provision has not been enacted.

[4] 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.

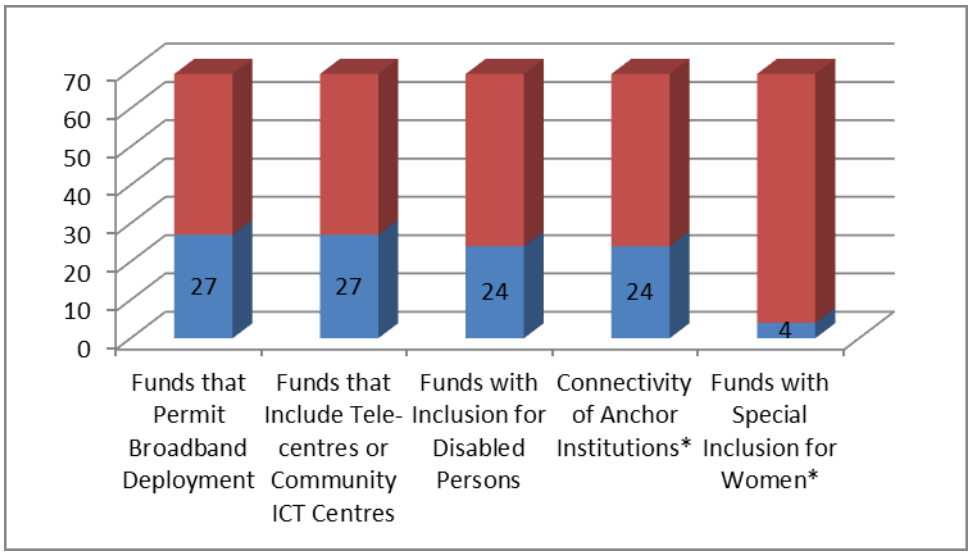
The following pie chart and bar graphs illustrate the current status of the USFs studied as presented in the preceding table[5].

Illustration 1- Activity Levels of 69 Funds Studied



Source – Table 1 above

Illustration 2 – Number of Funds Addressing Specific USF Elements



Source – Table 1 above

In addition to the fund characteristics listed above, 25% of the funds studied provide some regular financial reporting[6].

[5] Source : The author

[6] Financial reporting refers to an annual (or other consistent reporting period) statement of accounts that indicates total levies collected, total funds disbursed and total funds remaining in the Fund account.

1.5 Methodology

To carry out this study, data was collected from a number of different sources including, but not limited to, publicly available information, internet searches, entry into specific regulator and USF/USAF web sites and databases, access to published articles and reports, discussions with USF administrations and information currently collected by the ITU. The authors also corresponded, conducted interviews and held conference calls with regulators and fund administrators where possible. Interviews were also held with a number of fixed and mobile operators. In addition, information derived from the ITU Annual Telecommunication Regulatory Survey 2012[7] was also utilized although the required information was not always available. The information gathered was verified and confirmed to the extent possible by checking it against multiple sources and further interviews/exchanges of correspondence as needed. One of the principal challenges in gathering the required information is the lack of reliable public data and the numerous ongoing variances between the data presented in different sources and publications, sometimes even from the same entity. It is also important to highlight that some funds are in transition, with the end result being that some of the information being presented is likely to change in the upcoming months.

2. SUCCESS FACTORS IN THE MANAGEMENT OF THE USF

2.1 Introduction

The examples of current best practices with respect to USF management vary from region to region. Based on the analysis conducted as part of this USF study, although there are very positive examples of well-conceived, well implemented and effectively managed funds, there are many more that would, with some structural or policy changes, be able to demonstrate the full range of attributes needed to attain an ideal fund structure. Within many individual funds, there are specific elements that, when combined in a single framework and one administrative package, would result in a USF that is efficient, effective and well governed. The specific elements that constitute success factors as well as examples of these desirable elements are examined below.

2.2 Legal and Regulatory Framework

One of the fundamental success factors necessary to provide a solid and nurturing 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. The following are several examples:

- **Peru** – The fund was able to change technologies that FITEL could incorporate: first, to evolve from fixed line to wireless services and subsequently, to incorporate rural broadband as a key focus area.
- **Chile** – The government is able to adjust fund parameters to respond to input regarding new technologies and practices that may be required because this flexibility exists in the underlying framework.
- **Colombia:** There is a broad legislative definition that facilitates access to all ICT and related services without legal modifications.
- **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.
- **Nigeria:** 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 do so.

[7] www.itu.int/icteye

2.3 Autonomy and Independence

Within the portfolio of funds examined, there are some funds that have been structured to operate in a fully autonomous manner. The following are some examples of how this functions.

- **Nigeria:** This 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
- **Pakistan:** The USF is administered by a separate company - USF Co; the independent Board of Directors is comprised of representatives from both the private and public sector.
- **Thailand:** The NBTC is an independent government agency directed by eleven Commissioners with expertise in the broadcasting, telecom, financial and consumer protection fields. The Commissioners are appointed by the Senate for a six year term and are in charge of administering the Universal Service Obligation and the management of the BTRDF.

2.4 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 listed below.

- **Burkina Faso:** The regulator regularly publishes USF strategies and goals that include national coverage goals.
- **India:** The USOF has defined six basic USF 'streams' that are used to guide project development and implementation.
- **Malaysia:** The Fund articulates and publishes a **l**ayered implementation policy (e.g., suburban/sub-rural, rural and remote) and approach to ensure maximum reach to the universal service targets.
- **Uganda:** The USF policy clearly defines the phases of the USF, the objectives and how these should be attained.

2.5 Consultation with Stakeholders

The concept of stakeholder consultation is recognized 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.

- **Canada**: in addition to the fund management company, there is a fund oversight committee with operators having representation on and input into the committee; thereby having a say as to the services that should be covered by the fund.
- **Ghana:** Board of trustees for fund includes a representative from each major telecom operator.
- **Morocco:** Operators have a number of options regarding the manner in which they can fulfil their USF obligations; these are:
    - 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 authorization 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 is not 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

2.6 Delineation of Responsibilities between USF and Other Government Entities or External Agencies

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.

- **Afghanistan:** A detailed USF operating manual was prepared in which it defines and allocates roles and responsibilities, including with other organizations.
- **Mongolia:** Mongolia has demonstrated that positive results can be achieved in joint projects (when properly structured) and close coordination and cooperation between a USF and external aid agencies (e.g., IFC, World Bank**,** NGOs).
- **Peru:** Other government departments may identify possible projects and request funding with the understanding that FITEL is the administrator.

2.7 Defined and Measurable Objectives

The USF policy articulation referenced above in Section 2.4 must be bolstered by the development of defined 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.

- **Colombia:** The Fund produces a four year plan with targets, detailed project descriptions and the projected associated cost of the projects.
- **Malaysia:** The Fund produces an overall plan, listing targets and budgeted amounts for achieving each target.
- **Pakistan:** The Fund provides publications outlining its planned projects and related coverage and delivery targets.
- **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.

2.8 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. In today's world, 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 utilized and deployed provided that it corresponds to an international recognized standard and can satisfy the service and/or coverage requirements. The flexibility of a technology agnostic approach has been particularly instrumental in the deployment of broadband given the huge and burgeoning global demand for this service. Some examples of where this fundamentally agnostic approach has been successful are as follows:

- **Chile:** The Government can adjust Fund parameters to respond to input regarding new technologies and practices.
- **Colombia:** The USF mandate contains a very broad definition basically underscoring access to all ICT services.
- **India:** the sixth stream[8] specifically allows for the Introduction of new technological developments in the telecom sector in rural areas as well as pilot projects to establish new developments in the telecom sector
- **Peru:** FITEL adopted a policy of technology neutral auctions for project allocations.

2.9 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-publicized, competitive and transparent bidding process as indicated by the following countries.

- **Colombia**: Least cost subsidy; successful bidders posted on web site
- **Nigeria:** Least cost subsidy; successful bidders posted on web site
- **Pakistan**: Least cost subsidy; successful bidders posted on web site and in publications

2.10 Capacity Building, Sustainability and Complementary Services

In addition to providing basic telecommunications infrastructure and services, some funds 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 goes beyond the need for training and support as it should also encompass the development of content and/or applications that have the potential to assist those requiring access to specialized telecommunications services – services that are designed to improve and enrich the lives of those who require them.

- **Bolivia:** The fund allows for the development of content and applications intended for e-government, tele-education, tele-health and productive development for the achievement of universal access.
- **Colombia**: Tele-centres and internet access projects include technical training and training in use of applications; build-out of fibre backbone and connectivity are also taken into consideration.
- **Dominican Republic**: There is a heavy focus on education and e-strategies to accompany deployment of tele-centres and community access centres
- **Indonesia**: Development of local content is classified as one of the fund priorities.

[8] As referenced in Section 2.4

- **Lesotho**: Content developers are eligible for funding via the USF.
- **Pakistan**: Base stations funded by the USF must have renewable energy; free electricity via solar power is provided to tele-centres; training programmes which extend to the use of telecommunications technologies and services.
- **Uganda**: The fund permits the addition of supplementary services to stimulate use of tele-centres and village phones, content, etc.

2.11 Innovation and Incentives

In order to encourage effective project execution, instead of direct and immediate reimbursement, some funds provide incentives for efficient deployment and/or innovation and cost-minimization where feasible, as exemplified below. This also requires effective fund administration and project oversight to ensure that the incentives are warranted.

- **Chile**: The USF subsidies are paid in instalments based on project milestones/completed phases.
- **Dominican Republic**: Instalments for project deployment are paid in instalments over five years after the initial payments made thereby ensuring ongoing monitoring by the service provider
- **Morocco:** The 'pay or play concept' as discussed in detail in **Part III** - **Section 6.5** 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.

2.12 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 as supported by the following examples:

- **Chile:** Subsidy amounts are allocated in the national budget and must be spent in the year allocated; any money not spent during the fiscal year must be returned to the federal government.
- **Colombia:** Detailed annual reports are issued, based on a four year planning cycle, showing budget allocation, funds committed and funds used including per cent utilization.
- **India:** Details on the Fund's financial performance are clearly listed on Fund's web site reporting total levies collected, the amounts contributed to Fund and balance not yet disbursed.
- **Peru:** An annual report is published regarding fund performance with respect to project allocation and project performance versus targets.

2.13 Digital Inclusion Responsiveness

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 quite limited.

- **Bulgaria**: The fund provides fixed voice telephone services and/or provides terminals for persons with disabilities or the underprivileged.
- **Ghana:** 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.
- **Jamaica**: One of the key focuses of the Fund is the implementation of an Island-wide Broadband network

(schools, libraries and Post Offices connected) as well as the provision of broadband connectivity for hospitals/ health centres throughout the country.

- **Malaysia:** Certain elements of the fund target persons with disabilities, children under protection, women under rehabilitation and low income urban areas.
- **Mauritania:** The fund introduced an Information and Telecommunications Centre for people with disabilities in which training and services are also to be provided.
- **Sudan:** The fund provides for connectivity of schools, universities and health centres.
- **Thailand:** The fund finances the creation of services for persons with disabilities, seniors and underprivileged people as well as discounted telecommunications services for persons with disabilities.

3. CHALLENGES IN USF ADMINISTRATION

3.1 Overview

At present, in addition to the success factors explored in the preceding section, there are also challenges and impediments that exist with respect to the management of USFs. There are a number of factors that may contribute to this situation including, but not limited to, fundamental weaknesses or shortcomings in the underlying legal and regulatory framework; social and political conditions prevalent in the country in which the Fund is operating; or the lack of economic viability of the basic fund design. The following sections explore the most commonly encountered challenges.

3.2 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 as well as legally challenged 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 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.). This resulted in some frameworks that are so specific that they curtail the possible deployment of any new and innovative solutions that may be the most suitable to respond to the needs of the population groups either typically targeted by USFs (e.g., rural populations) or population groups or other entities that **ought to** be targeted by USFs (e.g., persons with disabilities, girls and women, anchor institutions, indigenous peoples, etc.).

In other 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.

3.3 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 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[9].

3.4 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. In other cases, the funds seem to have difficulties in developing enough projects to adequately utilize 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.

3.5 Structural Matters

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:

- Ongoing conflict between telecom regulators and treasury regarding how funds can be allocated and utilized (Asia)
- Significant challenges in collecting all contributions owed by operators (Africa, The Americas)
- Limited recourse to force payment from operators refusing to contribute to the fund (Africa, Europe, Latin America)
- Existence of multiple legal disputes/challenges regarding use and allocation of funds (Europe)
- Calculation methods and application of requirements successfully challenged in court (Europe)
- Complete paralysis of the fund whilst disputes are addressed (Asia, The Americas)

[9] 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 2013 (e.g., e-applications, inclusion of girls and women, sustainability, etc.

3.6 Definition of USF Strategy and Objectives

A clear definition of the overall USF strategy and objectives is needed in order to ensure that USF funds are put to the use for which they were intended, and to achieve desired levels of oversight and governance. However, many USFs do not have a clear articulation of either. 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 as evidenced by some examples below.

- Inability to adequately set targets and level of levies for subsequent years' funds
- 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 even been stated in the first place)
- Inappropriate guidelines encouraging, for instance, urban rather than rural network rollout and thereby overlooking the sectors most in need of the assistance that can be obtained via a USF

3.7 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.

The following are some examples of issues being encountered:

- Senior fund management are in the process of being replaced in a number of funds or in, some other funds, there have been recent major changes in fund management personnel.
- In some funds, there is significantly delayed execution of many projects or frozen or suspended projects due to poor or non-existent project management
- There is a lack of human resources at local level to maintain, support and educate inhabitants because the maintenance contract with the government covers only the first year of deployment and no allowances have been made for ongoing support.

3.8 Transparency, Visibility and Accountability in USF Reporting

As identified in the summary preceding each regional section in **Part III** - **Section 6,** as well as in the individual country tables, there is a significant absence of financial reporting amongst the existing funds. Of the countries included in this study, over 50% 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 are various allegations (not necessarily proven) of financial mismanagement associated with a number of funds. In one particular case, the situation was so severe that the fund administrators were dismissed, the fund suspended and a forensic audit ordered. In other instances, entire senior fund management teams have been replaced in the face of similar allegations.

3.9 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 organizations. In yet others, the oversight process, particularly as regards the allocation of funds and approval of projects has become so onerous and bureaucratic that fund activity has either been critically impeded or has ground to a virtual halt. Finally, in cases where the governance principles and rules have not been adequately articulated, legal disputes have frequently ensued. Lack of sufficient power/authority to effectively carry out fund management (e.g., lack of enforcement with operators) has also generated problems in the form of inability to collect the USF levies and has also led in some cases to other legal disputes.

3.10 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. Some of the recent examples of conceived project allocation processes are:

- Market domination by limited number of operators mean they feel no pressure to bid/be more competitive
- Unsuccessful tender due to inadequately established maximum subsidies plus a lack of technical and infrastructure support. thereby rendering incentives economically unviable

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.

3.11 Consideration of Digital Inclusion

To date, in general terms, the overall concept of digital inclusion has been overlooked by the majority of 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. Another point worth highlighting is that although many funds now support the creation of tele-centres (which can and should be one of the cornerstones of digital inclusion), either the policy or the defined targets for tele-centres have not taken into account the needs of accessibility or assistance for persons with disabilities. However, the biggest oversight at present when it comes to digital inclusion is that almost all of the funds have not addressed the need to target and support services for girls and women.

3.12 Constraints to Broadband Deployment

Although this challenge is already previously alluded to in the examination of technology and service limitations stemming from missteps in the formulation of USF legislation and regulation, it is worth highlighting. 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. Many governments have sought alternative financing mechanisms to stimulate broadband growth and deployment and one of the reasons (but not the only one) is that the regulatory or legislative changes needed to increase the scope of the USF either happen too slowly or not at all. There are many funds that have adequate resources to help finance broadband deployment but the funds sit idle because they cannot be disbursed for this purpose.

3.13 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 programmes neglect 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.

- Lack of roads or alternate access solutions for some of the remote service areas; in one such case, lack of suitable access roads able to withstand large transport trucks resulted in cancellation of a major satellite project.
- Limited or no availability of suitable buildings or shelters to house tele-centres or telecommunications equipment becomes a major challenge when construction requirements are not taken into consideration.
- Unavailability of reliable power sources has curtailed deployment of tele-centres or even of telecommunications network equipment.

3.14 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. Examples of funds where the technologies and services are not really being used underscore the point that it is not enough merely to install computers, data networks and other services, and then just wait for people to use them. 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. In tele-centres, for instance, a number of countries have deployed very good facilities but did not take into consideration any suitably trained resources to manage and administer the tele-centres and to provide assistance to the tele-centre users. 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.

3.15 Local Conditions and Related Security

The nature of the remote and often difficult areas to be covered by USFs means that there are bound to be situations that impede or totally prevent USF projects from moving forward. These include factors such as hostile terrain, severe climatic conditions and precarious political situations (e.g., avalanches, political unrest, civil unrest, terrorist 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.

4. BLUEPRINT FOR BEST PRACTICES IN USFS

4.1 Overview

With the number of USFs already in effect globally, there is an ever-increasing and pressing need to carefully address the structural and operational shortcomings of a number of existing USFs with a view to reforming and improving these USFs so that the funds can achieve the goals originally envisaged by their creators: namely, accessibility and affordability for all and, more recently, to respond to the growing need for broadband access around the globe. In addition, it is critical that the issue of the widespread lack of disbursement of already collected USF contributions be tackled and resolved so that the money can be put to good use. In addition to the pressing need to effect these operational changes, consideration must also be given to how to avoid a possible repetition or resurgence of these constraints in the future.

In general, there are two fundamental factors that need to be addressed in order to undertake corrective action or remedies for existing funds: 1) demonstration of the political will to effect change and improvement; and 2) ability to tackle the legislative and/or regulatory changes required in most cases in order to carry out any changes or improvements. Until such actions are initiated, there are few prospects for moving forward with the changes so urgently needed. Once the push for change is underway, the blueprint elaborated below can also serve as a model for USF reform.

In those countries where there is either a stated government policy regarding the need to establish a fund or where such a provision exists in the law, an effective and successful newly formed USF should embrace the following characteristics and suggested guidelines.

1. Well-articulated policy with respect to how Universal Service (US) will be achieved and organized	▪ clear and flexible definition of what US is ▪ articulation of the high level vision and policy for the USF ▪ policy should take into account defined geographic, economic and societal sectors ▪ preparation of the strategy needed to achieve the articulated vision with the strategy embracing the need for policy modification when needed in order to respond to continually evolving conditions and requirements in these various sectors
2. Development of an appropriate and well-defined legal and regulatory framework	▪ highly flexible with respect to effecting policy, structural and operational changes ▪ technology and service flexible (neutral) that will permit, amongst others, broadband deployment ▪ allows use of funds for targeted ancillary/complementary ICT related activities understanding that a government digital agenda, e-services/e-inclusion and digital inclusion should be the priority ▪ ability to easily adjust USF levies – typically downward (in consultation with stakeholders) to match the funding mechanism to assessed need ▪ provides for periodic review and adjustment of the overall USF vision, policy and administrative

	mechanisms
3. Establishment of the USF as separate, independent (autonomous) entity	▪ an independent and well- qualified fund administrator ▪ separate management and administration entity/ organization/company ▪ funds are managed out of a separate financial account ▪ accountable to an impartial, credible party/authority ▪ not subject to political interference and/or, if possible, with sufficient safeguards to curtail influence ▪ not subject to interference from other donor organizations ▪ has clearly defined governance and governance structure
4. Clear definition and delineation of fund responsibilities	▪ clear explanation as to the roles and responsibilities of the fund administrator and well as any additional executive staff ▪ detailed explanation as to the roles and responsibilities of any board of directors or management committee ▪ clear definition regarding the participation of external stakeholders. including industry participants ▪ precise delineation of roles between the USF and other government agencies/departments ▪ articulation of responsibilities for project management and other related functions
5. Development and clear definition of measurable overall Fund objectives which can subsequently be tracked and monitored	▪ need to include detailed coverage (e.g., geographic, population/population segments) and service targets tied into a specific time frame ▪ prepared in consultation with industry and stakeholders ▪ presented in one or more easily accessible information sites/media ▪ clearly articulated measurement parameters that will allow milestones and achievements (or lack thereof) to be clearly tracked and demonstrated ▪ measurements and results reporting should be in a format so as to facilitate independent verification ▪ objectives and performance against objectives subject to annual review and adjustment in consultation with the stakeholders
6. High level of transparency, visibility and accountability to all stakeholders	▪ minimum of annual reporting on performance of fund (quarterly or bi-annual would be preferable) that should include, at a minimum, the following: ○ recap of any USF tenders held and results of same

	○ overview of approved USF projects in progress (project description, coverage goals and timelines) ○ performance of fund projects against targets with respect to coverage targets, project budget, timelines, etc. ○ statistics and status on funds collected ○ statistics on funds collected versus funds disbursed as well as tabulation of remaining balance (reserves) ○ explanation of any roadblocks / impediments /challenges encountered in disbursement of funds ○ outline of targets and objectives for the next financial year ▪ annual public audit, independent from the government with results publicly reported and published
7. Active participation in and input from all concerned stakeholders regarding fund objectives and administration	▪ ensure outside/industry participation in the USF board or oversight committee ▪ enshrine a consistent and structured public consultation process with all concerned stakeholders ▪ encourage operator participation in the definition of USF projects including pay or play mechanisms
8. Guidelines and procedures for working with other funding sources	▪ identify and take into consideration other possible funding sources including, but not limited to, IFC, World Bank, NGO's, etc. ▪ take into consideration potential partnerships or parallel approaches that may work alongside a USF (e.g., PPP) ▪ clear definitions of respective roles and responsibilities ▪ ensure that potential for overlap and/or possible conflicts regarding roles is taken into account is taken into account
9. Ensure that the full range of sustainability elements and complementary/ancillary services are taken into consideration in both policy formulation and project definitions	▪ focus on ongoing sustainability of USF funded projects (e.g., power supplies, backbone networks, access roads, access to water, etc.) ▪ ensure that the development of complementary/ancillary content or applications can be addressed when and if required ▪ ensure that the need for both user and project administrator/ training is factored in
10. Fair and unbiased process to allocate subsidy and /or project	▪ technology-neutral tenders to give all interested parties an equal chance to win (as opposed to

	mandating US) ▪ competitive bidding process with transparent rules, including the specific evaluation process ▪ well publicized and disseminated project announcements to ensure that all possible interested parties are aware ▪ where pre-qualification is warranted, development of criteria that both satisfies the specific project requirements but does not seek to deliberately exclude potentially qualified parties
11. Incentives for project participants	▪ incentives for efficient deployment and/or innovation and cost-minimization where feasible ▪ payment schemes tied into specific targets and milestones ▪ ensure that the project monitoring procedures are in place to sustain the incentives
12. The need for digital inclusion	▪ ensure that USF policies and objectives incorporate the need for digital inclusion ▪ introduce specific definitions for each of the to be targeted segments (e.g., persons with disabilities, indigenous peoples, anchor institutions, etc.) ▪ encourage stakeholder participation in the definition of programmes to respond to the specific population segments

4.2 Planning for the Future

The operational blueprint presented in the previous section focuses on the underlying structure, 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. However, it is important to stress that no blueprint can foresee or encompass all future developments that might take place as regards the conditions impacting the requirement for and the nature of universal service; in other words, one should anticipate that the vision of what USFs entail will undergo constant evolution and change. Twenty-five years ago, for instance, no one would have possibly envisaged the rapid development of or demand for wireless communications and mobile broadband nor would they have foreseen the mushrooming need for increasingly life enhancing applications such as e-education, e-health, etc., or the need for greater attention and remedial action in the area of digital inclusion. Therefore, any 'ideal' vision that may be articulated in this report would no doubt be outdated within a matter of few years; hence the continuing emphasis on the need for flexibility in the creation of any USF vision and/or operating blueprint.

PART III

5. DIGITAL INCLUSION

5.1 Introduction

In order for universal service to truly bring benefits to all, it needs to be be re-examined and redefined to ensure that all communities as well as targeted population groups have access to information and communications technologies (ICT). With broadband technologies enabling the delivery of advanced services to remote and underserved regions, it is essential that the concept of "digital inclusion" be considered as an element of universal service. As the ITU has so clearly recognized, digital inclusion is fundamental to building inclusive societies. It is a means to empower people through ICT and ensure that all people, be they indigenous peoples, persons with disabilities, women and girls, and youth or children have affordable access to ICT for their social and economic development.[10] Indeed, the ITU has been devoting significant efforts through its Telecommunications Development Bureau (BDT) with initiatives designed to promote accessibility and use.[11] This chapter will provide a review of efforts to address digital inclusion of key constituencies – to ensure that they are included in both the discussion of universal service policy and the establishment or enhancement of universal service funds able to promote accessibility. While affordability has been a key component in the context of universal service policies, with respect to the digital inclusion and the key constituencies addressed, accessibility is a vital and increasingly critical goal as well. This can be accomplished through a variety of means such as connecting schools to be used as community ICT centres for indigenous peoples, women and persons with disabilities, to name but a few. Connecting schools and providing ICT training also ensures digital inclusion of the youth and children who attend those schools.[12] Other alternatives exist, including connections to anchor institutions that can provide accessibility as well as the establishment of tele-centres. Although the general concept of tele-centres is now widely used, these tele-centres must be equipped to support persons with disabilities and provide a safe and welcoming environment, especially for women and the elderly, where it may provide digital literacy training and also respect the cultural heritage of the indigenous population.

5.2 Digital Inclusion for Persons with Disabilities

Persons with disabilities include those who are deaf or hard of hearing; individuals who are blind or have low vision, persons who are unable to use their limbs or have limited mobility and dexterity in their fingers and/or arms; and those with cognitive disabilities such as challenges with memory, analytical skills, attention, reading skills, mathematical or computational comprehension, reading comprehension and communication.[13] One billion people worldwide live with some form of disability and can only use *accessible* ICT s. This means that if someone cannot see a typical screen, that individual needs a way to understand what is on the screen, such as text-to-speech functionality. If a user cannot hear information, the user needs a way to get that information, such as captioning on television or speech-to-text that can be read on a mobile phone. Likewise, if someone cannot input a command on an ICT device with their hand, he or she needs alternative ways to do this.[14]

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[10] See https://itunews.itu.int/En/3060-Digital-inclusion-Giving-voice-to-the-voiceless.note.aspx

[11] http://www.itu.int/en/ITU-D/Digital-Inclusion/Pages/default.aspx

[12] See www.connectaschool.org

[13] Making Mobile Phones and Services Accessible for Persons with Disabilities, A joint report of ITU – The International Telecommunication Union and G3ict – the global initiative for inclusive ICTs, August 2012, p.7.

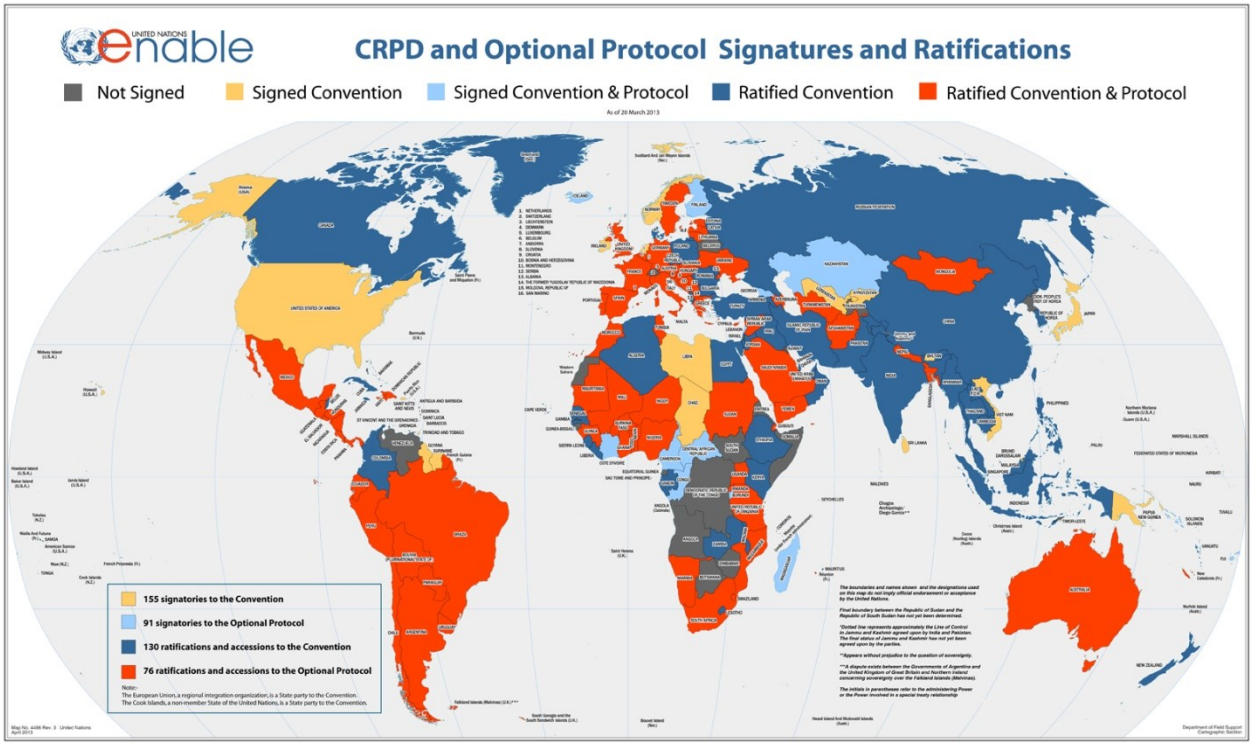
[14] http://www.itu.int/en/ITU-D/Digital-Inclusion/Persons-with-Disabilities/Pages/Persons-with-Disabilities.aspx

5.2.1 United Nations Convention

The Convention on the Rights of Persons with Disabilities (CRPD) was adopted by the United Nations General Assembly in 2006 and entered into force in May 2008. [15] This document serves as an international human rights instrument of the United Nations and is intended to protect the rights and dignity of persons with disabilities. Parties to the Convention are required to promote, protect, and ensure the full enjoyment of human rights by persons with disabilities and ensure that they enjoy full equality under the law. The Convention has served as the major catalyst in the global movement from viewing persons with disabilities as objects of charity, medical treatment or social protection towards viewing them as full and equal members of society, with human rights.

As noted in the image below, there are more than 160 signatories to the convention, indicating the global recognition of the importance of the disabled community in society. To ensure that this group has access to ICTs is vital and has not necessarily been considered in the development of universal service or in the creation of USFs to provide universal service.

Map of Global Signatures and Ratifications of CRPD[16]



Several Articles in the Convention touch on the specific need to ensure digital inclusion for the disabled. Article 3 of the Convention sets forth eight guiding principles and includes accessibility to ICT as a key element. Article 4 addresses the need to promote research and development in and the availability and use of new technologies, including information and communications technologies, mobility aids, devices, and assistive technologies suitable for persons with disabilities, giving priority to technologies at an affordable cost.[17] Most importantly, under Article 9, the Convention explicitly

[15] See http://www.un.org/disabilities/

[16] See http://www.un.org/disabilities/documents/maps/enablemap.jpg, accessed May 2, 2013.

[17] Seehttp://www.un.org/disabilities/default.asp?id=264

addresses the rights of persons with disabilities to have access to new information and communications technologies and systems (including the Internet) on an equal basis with those who are not disabled.[18] This article requires that all content, communications, hardware, software and interfaces be accessible for the disabled and further suggests that parties to the convention should encourage the private sector to deliver accessible products and services.[19] The challenge is how to ensure that there are programmes or policies established that will meet the needs of the disabled community with specific reference to ICT and their accessibility to all that technology can offer.

5.3 Accessibility and Persons with Disabilities

For persons with disabilities, there are several features to include in mobile phones that will make them accessible and that will support special services to improve accessibility and quality of life.[20] Some of these accessibility features include messaging options for persons with disabilities who are deaf or hard of hearing that will allow them to contact people through text messaging, either short messaging services (SMS), email or multimedia messaging services (MMS).[21] Other features for individuals who are hard of hearing include visual or vibrating alerts, ability to access and control volume, visual call logs, visual or tactile indicators for the keypad as well as text teletypewriter services.[22]

Persons with disabilities who are blind or have low vision cannot see screens and are challenged in their use of touchscreen keyboards or accessing contact lists to call numbers stored in address books, sending and receiving messages or navigating keypads and menus.[23] Individuals who are visually impaired may rely on a screen reader to facilitate use of a computer or cell phone. The screen reader is software that translates and converts information displayed on the screen into speech, non-speech sounds and Braille for a Braille display.[24] The table below provides an overview of a number of readily available accessibility features which can facilitate use of mobile phones by persons with disabilities with visual challenges.

[18] Making Mobile Phones and Services Accessible for Persons with Disabilities, A joint report of ITU – The International Telecommunication Union and G3ict – the global initiative for inclusive ICTs, August 2012, p.43.

[19] Ibid.

[20] Making Mobile Phones and Services Accessible for Persons with Disabilities, A joint report of ITU – The International Telecommunication Union and G3ict – the global initiative for inclusive ICTs, August 2012, p.1.

[21] Ibid.

[22] Ibid.

[23] Ibid., page 4.

[24] Ibid.

Feature	Description
Voice synthesizer feedback for touch screens	Voice feedback allows users of touch screen handsets to hear the description of the icon under their finger tip. When in voice feedback mode (such as Voice Over with iOS), touch screens are typically frozen so that users can explore icons. Special gestures such as three fingers at a time are necessary to trigger the sliding of screen pages when in voice feedback mode.
Audible cues	Noises used to indicate specific services or features, such as: low battery, caller waiting or ending a call, adjusting volume level, etc.
Adjustable brightness / contrast controls	Allows the user to customize the display to meet individual needs. Display colours, for example, can be reversed on BlackBerry smart phones. Depending on the comfort level of a partially sighted user, the foreground and background colours can be changed from light to dark or vice versa. Colours can also be converted to shades of grey.
Changeable size for main display	The size of the displaying area can be changed to suit user needs.
Backlit display	Backlit display facilitates viewing in poor lighting, indoors and outdoors.
Basic text-to-speech functionality	For example, this feature can be useful when checking caller ID and reading text messages.
Scanner and OCR (Optical Character Recognition):	Provides highly accurate print-to-electronic text conversion.
Screen magnifiers	Magnifying screens allow users with low vision to enlarge fonts and images. Essential for those with a limited degree of usable vision. The picture in Figure 1.6 shows an example of the magnifying function.
Feature	**Description**
Tactile markers	These markers help orient fingers on the keypad – the raised dot on the number five on telephones and mobile phones helps users to navigate the keypad.
Audible or tactile feedback	Confirms that a button is pressed. For example, provides audio alerts and feedback for functions such as when voice mail is received or phone is turned on.
Adjustable font sizes	This feature enables the user to increase font size when required to suit user needs.
Screen readers	Used extensively by people with visual impairment to operate computers and mobile phones. While some mobile phones have a built-in screen reader, it is also possible to equip a mobile phone with a third party screen reader.

Source: Making Mobile Phones and Services Accessible for Persons with Disabilities, A joint report of ITU – The International Telecommunication Union and G3ict – the global initiative for inclusive ICTs, August 2012

For those individuals who are challenged by a loss of dexterity or inability to use limbs, arms and fingers, easy solutions must be made available that can facilitate use of the phone with minimal use of hands, relying on advanced speech recognition software that will enable basic communications using a mobile phone.[25] Accessibility features include voice recognition which can enable those with limited dexterity to place calls, write text messages, open and closed applications as well as web surfing. Messaging for users with limited hand movement can be facilitated through AutoText which can replace particular text with preloaded texts to reduce the number of keystrokes necessary to type messages.[26] In addition, sensitive touch screen phones can benefit users with movements limited to their fingers. For those who have trouble holding mobile phones steady (such as individuals with Parkinson's, nervous disorders,

[25] Ibid. page 7

[26] Ibid.

hypothyroidism or elderly people), downloadable applications make it possible to take clear pictures by adding anti-shake functionality to standard mobile phone cameras.[27]

Ensuring accessibility for those with cognitive disabilities is extremely important. Depending on the type of disability, a person may have difficulties related to memory, analytical skills, attention, reading, skills, mathematical or computational comprehension, reading comprehension and communication.[28] It is vital that there be a clear and simple user interface and consistent user interface elements that can facilitate easy selection of options. The following table provides details on the useful accessibility features for people with cognitive disabilities.

Feature	Description
Predictive Texting	The phone's text editor predicts words as they type, thus making it easier to compose messages.
Speech recognition	This has become highly accurate and most voice dictation applications have the capability of recognizing various accents.
Text-to-speech	The ability to convert displayed electronic text into speech removes the anxiety associated with reading contact names, caller ID, messages, emails, instructions / directions, textbooks and much more. Phones with high-resolution cameras provide the option of converting printed text into electronic text with a single click. This text can then be read aloud using text-to-speech applications, enlarged for a clearer view or even highlighted and heard simultaneously.
Built-in calculator and schedule reminders	Built-in schedule reminders with audio, visual and vibrating alerts help users to remember future events and to perform tasks. Synchronizing with desktop-based calendars like Microsoft Outlook and Google Calendar is especially useful.
Larger display screens and formatting options	For text that allows users more spaces between each word (so that each word is highlighted boldly and in bigger font) along with increased brightness makes reading easier and more pleasurable.

Source: Making Mobile Phones and Services Accessible for Persons with Disabilities, A joint report of ITU – The International Telecommunication Union and G3ict – the global initiative for inclusive ICTs, August 2012

There are further features that can improve accessibility for those with cognitive disabilities including making sure that instruction manuals are written in clear and easily understandable terms, providing pictorial displays to ensure ease of use for non-readers, and offering pre-recorded voice commands associated with popular functions.[29]

Beyond disability, consideration should be given to addressing literacy and its correlation to accessibility. The need to ensure literacy among disabled persons and especially the visual and hearing-impaired communities in the developing world is essential. In this case, accessibility features relevant for illiterate persons include an intuitive user interface which is based on graphical icons that enable use of mobile phones. In addition, audio-based interfaces can support not only the native language of people with limited literacy skills, but also their local dialect for convenience and ease of use.[30] There are further examples provided in greater detail in the ITU's Report: *Making Mobile Phones and Services Accessible for Persons with Disabilities*, released in August. 2012.

[27] Ibid.

[28] Ibid.

[29] Ibid, page 8

[30] Ibid. page 9.

Accessibility is not just needed in the mobile environment but also in the broadcasting arena. There are many options to consider when improving accessibility of general television programming. The ITU has examined this matter in greater detail in its report entitled: *Making Television Accessible*. [31] Accessibility is addressed in the context of age related concerns stemming from ensuring that audio-visual content can be accessed by children, elderly adults and those individuals who may require dubbing, voice-overs or captioning. Viewing and accessibility options for specific disabilities are also considered, including individuals with hearing, sight, speech, mobility and dexterity and cognitive impairments.[32]

5.4 Digital Inclusion and Women and Girls

Throughout the developing world, women and girls also are often excluded from ICT, frequently lacking access to technologies as basic as a mobile phone. Even in countries where there is growth in technology deployment and usage, many women are at a disadvantage. The irony is that women can play a pivotal role in reducing poverty and promoting social and economic development for themselves, their families and their countries.[33] ICT is an essential tool for the social and economic development of women and girls by providing an education and job training, promoting literacy, improving access to health care and enabling the exercise of legal rights and participation in government.[34] There are many reasons for this, including gender discrimination, limitations in physical location, and simply put, women in particular have less free time and disposable income than men in many developing regions of the world.[35] Nevertheless, investing in women has a multiplier effect as they reinvest in their families and communities. Thus, ensuring digital inclusion and ICT provision to women and girls will promote gender equality, empowerment and social and economic development of both men and women.

As the ITU has found, more men than women use the Internet, and this result indicates that globally, 37% of all women are online, compared with 41% of all men.[36] This corresponds to 1.3 billion women and 1.5 billion men.[37] Within the developing world, there are currently about 826 million female Internet users and 980 million male Internet users. For comparison, there are about 475 million female Internet users and 483 million male Internet users in the developed world. Thus, the gender gap is more pronounced in the developing world, where 16% fewer women than men use the Internet, compared with only 2% fewer women than men in the developed world.[38]

5.5 Accessibility and Women and Girls

5.5.1 Overview

Providing accessibility to ICTs for women and girls is key to addressing digital inclusion and is a means for empowering women. Accessibility can make fundamental changes in women's lives. The Women, ICT, and Development (WICTAD) International Forum, co-sponsored by UN Women and the U.S. Department of State Secretary's Office of Global Women

[31] A joint report of ITU – The International Telecommunication Union and G3ict – the global initiative for inclusive ICTs, November 2011

[32] Ibid. page 16

[33] See http://www.itu.int/ITU-D/sis/Gender/

[34] Ibid.,

[35] Connect A School, Connect A Community, ITU, Module 5, Community ICT Centres for the Social and Economic Empowerment of Women, page 9.

[36] ITU, The World in 2013: ICT Facts and Figures, http://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx

[37] Ibid.

[38] Ibid.

which was held in January 2013, noted that accessibility to ICT can facilitate opportunities for women that include exposure to new ideas and connections to knowledge previously unavailable; women's sense of connection to their wider communities and their ability to organize; changing narratives, perceptions and stereotypes through engagement; and acknowledgement of the reality of these women's lives in their local context. It is here that the potential of ICTs' networking ability, exchange of data, information and knowledge, decentralization of voice to individuals (e.g. through blogging), ability to bypass the "mainstream", new media, and many of the other underlying attributes of ICTs and the knowledge society come into play. ICTs also have incredible potential for generational change and it is critical to address girls when considering gender and empowerment.[39]

While mobile phones offer tremendous opportunities for women, access to other technologies also will have a significant impact in addressing digital inclusion for women. The growth of wireless broadband technologies and the benefits derived from these technologies can extend to use in community centres that can provide women with readily available broadband access. Providing women with access to broadband in particular was recently articulated during the Broadband Commission for Digital Development meeting held in México City in March 2013. This meeting directly addressed digital inclusion and resulted in the establishment of a new target date of 2020 to provide women with equal access to broadband services.[40] The ITU also has recognized the critical need to shrink the existing gender gap and has noted the need to work to enhance women's access to ICTs, especially broadband, as a key goal of its global development agenda.[41]

One avenue for consideration to address and respond to accessibility is through the development of community ICT centres. Community ICT centres have developed as physical spaces that provide shared public access to ICTs primarily through computers, satellite radios, telephones (fixed and mobile) and facsimile machines.[42] Referring to these centres under the appropriate term can impact accessibility for women and girls.[43] Centres that are essentially public access points may not be regarded as appropriate places for women and girls in some countries or cultures and the manner in which they are described is important.[44]

To facilitate accessibility, the ITU notes that there are two fundamental principles to guide the development of any community ICT centre in order to integrate the needs of women and girls. First, they note the need for participatory community involvement and the importance of engaging women and girls throughout the process of developing and designing these centres in order to fully ensure that these centres reflect the needs, activities and interests of this constituency.[45] The second principal is to ensure there is a partnership and linkages made within the local community to serve to increase outreach to the community.[46]

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[39] The Women, ICT, and Development (WICTAD) International Forum Report, January 2013.

[40] http://www.gsma.com/mobilefordevelopment

[41] http://www.itu.int/net/pressoffice/press_releases/2013/08.aspx#.UUnPq1f_6As

[42] Connect A School, Connect A Community, ITU, Module 5, Community ICT Centres for the Social and Economic Empowerment of Women, page 5.

[43] These centres are often referred to under a wide variety of terms including tele-centres, tele-cottages, public Internet access centres, village knowledge centres, infocentres, community technology centres, community multimedia centres, multipurpose community tele-centres, common/citizen service centres and school based tele-centres. See Connect a School, Connect a Community, ITU, Module 5, Community ICT Centres for the Social and Economic Empowerment of Women, page 6.

[44] Ibid. page 5.

[45] Ibid. page 18.

[46] Ibid. page 20.

5.5.2 Youth and Children

Further consideration of digital inclusion should address accessibility of ICT at schools for children and youth who cannot afford private access. In addition, efforts should support training on the use of ICT accompanied by information on relevant content that can provide targeted issues of concern and interest such as job opportunities and the means to develop and encourage entrepreneurial skills. The ITU will be issuing a report, "Youth, Employment and Entrepreneurship: Seizing New ICT-Enabled Opportunities" later in to address this matter in greater detail.

5.5.3 Indigenous Peoples

ICTs are a proven and effective tool to promote social and human development in many indigenous communities and remote regions. ICTs are a means of communication with members of the community that have left in search of a better life in the cities or even in other countries. For some indigenous peoples, these technologies are a way to promote their culture in other places, to access information about events in other parts of the world or in their own country, to start educational processes, and to promote the protection of their rights, their way of life and their environment. One way to bring ICTs into indigenous communities is to develop community ICT centres provided they are developed for sustainability and through the direct involvement of the indigenous peoples being served, including with regard to the selection of technology and local content addressing cultural and economic activity as well as training of members of the indigenous communities[47].

5.6 Universal Service Funding and Digital Inclusion

Universal service funds can be used to address digital inclusion and promote accessibility for indigenous peoples, children, indigenous peoples, youth and women. This can include funding accessible ICTs and services for persons with disabilities as well as the development of speech-to-text engines in local languages; network rollout to under-served areas populated mainly by women and indigenous peoples; subsidies for handsets and/or minutes; connectivity and equipment for community ICT centres (whether standalone centres or centres in anchor institutions) along with training of trainers and users of community ICT centres; the development of training materials and other relevant content and awareness raising campaigns on the importance of digital inclusion for these communities. Universal service fund managers can be encouraged to consult with the targeted communities in developing relevant projects. The "nothing about us without us" rally of persons with disabilities applies to all digital inclusion groups.

5.6.1 Persons with Disabilities

The ITU has noted that there are a variety of ways in which USFs can be used to support projects that will heighten accessibility and address digital inclusion for persons with disabilities and other target population segments. These may include:

- subsidies for relay services and assistive technologies provided directly to consumers or to service providers and manufacturers;
- special monthly packages or other tariffs for persons with disabilities provided directly to consumers or to service providers and manufacturers;
- subsidies to enable public community Internet access points to procure accessible and assistive technologies for the equipment used by the public;
- providing incentives for research and development on or localization of assistive solutions (such as development of speech-to-text engines in local languages) and for research and development and promotion of

[47] Connect a School, Connect a Community, ITU, Module 3, Developing Community ICT Centres for the Social and Economic Empowerment of indigenous Peoples.

universally designed 48goods;

- subsidies for handsets with built in accessible features or smartphones equipped with accessible applications; subsidies for programmes aimed at facilitating the adoption of ICT by persons with disabilities;
- subsidies to support programmes, such as digital literacy, which ensure the full development, enhancement and empowerment of women with disabilities; and programmes that encourage the provision of age-appropriate ICT devices and connectivity along with assistive technology for children with disabilities; and
- subsidies to support skills development in the use of ICT service, devices and connectivity, in particular for persons with disabilities, organizations representing persons with disabilities, teachers and vocational trainers.[49]

While providing access to the technology is important, providing training on how to use the technology to its fullest advantage is equally critical. It is the partnering of access and training that will truly make an impact when considering how to foster digital inclusion. Therefore, an important aspect of data inclusion for both persons with disabilities and women is having access to digital literacy training. Simply put, digital literacy is the ability to find, evaluate, utilize, share and create content using information technologies and the Internet.

For persons with disabilities, digital literacy training must offer alternative technologies such as voice recognition software, special keyboards, Braille translators, mouse alternatives and other useful hardware and software tools to enable all to learn how to use technology. For both persons with disabilities and women, digital literacy training will serve to improve opportunities through education, learning additional skills that can maximize the ability to find employment, and fostering a sense of community and connections by using technologies that may further communications and contact. The European Union Digital Literacy High Level Expert Group has noted that: "digital literacy is increasingly becoming an essential life skill and the inability to access or use ICT has effectively become a barrier to social integration and personal development."[50]

5.6.2 Women and girls

Universal service funds can promote the digital inclusion of women and girls in a variety of ways. This may include network rollout to under-served areas populated mainly by women and children and subsidies for handsets and/or airtime for poor women who cannot afford services. Alternatives to promoting affordability and access for women and girls include funding community ICT centres for women. Universal service fund managers can be encouraged to conduct a gender analysis in developing projects for women. The Gender Evaluation Methodology for Internet and ICTs developed by the Association for Progressive Communications[51] is a good basis for such an analysis.

Digital literacy training programmes for women and girls can be conducted in community ICT centres established with grants from universal service funds that also provide connectivity, equipment, content and training development as well as training of trainers delivering services to women. It is important that community ICT centres for women offer additional programmes beyond simple digital literacy. These programmes may include ICT training programmes that can

[48] Universal design means the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. "Universal design" shall not exclude assistive devices for particular groups of Persons with Disabilities where this is needed, as defined in Article 2, Convention on the Rights of Persons with Disabilities.

[49] ITU Model Accessibility Policy Report, 2012

[50] Digital Literacy Report: a review for the i2010 eInclusion initiative, European Commission Staff Working document, 2007 http://www.ifap.ru/library/book386.pdf, p.4

[51] See http://www.apc.org/en/projects/gender-evaluation-methodology-internet-and-icts-ge

highlight opportunities and means for development and empowerment of women through ICTs such as entrepreneurial training.[52] This may also require that awareness campaigns for men are developed that will provide information and education as to why it is important for women in the community to have access to ICT.

The ITU, working in partnership with Telecentre.org Foundation (TCF), has sought to train one million unskilled women to use computers and ICT applications to improve their livelihood.[53] This programme, formalized as the "Tele-centre Women Digital Literacy Campaign," embraces the following components: recognition of tele-centre women-achievers; wide-scale digital literacy training for women; operating tele-centre classrooms with custom digital literacy curricula based on needs in a given country; and working with like- minded private partners and supporters who champion the cause.[54] As of March 2013, the programme had provided training to over 682,000 women.[55]

5.6.3 Anchor institutions and Community ICT Centres for Digital Inclusion

Ensuring connectivity and provision of ICT equipment for anchor institutions – such as schools, universities, libraries, hospitals and cultural institutions – should be a primary goal of addressing digital inclusion for persons with disabilities, women and girls, as well as youth, children and indigenous people. Each of these groups are often without access to ICT at home and community ICT centres/telecentres can provide not just access, but affordable access to technology. Utilizing public access terminals in an anchor institution such as a public library or school may be one readily available way to promote digital inclusion as long as such public access points are accessible and welcoming to targeted population groups. Through such use, some of those who lack digital literacy skills may develop the requisite skills and experience that can lead to further use of the technology.

Community ICT centres are versatile enough to meet not only the diverse needs of various social groups but also the range of demands of every individual in a community.[56] These centres can provide a means for dispensing information in a community as well as offering digital literacy training and more advanced ICT training, focusing on education and development of new skillsets, and thereby become places for collaborative learning.

5.7 Current Levels of Digital Inclusion in USFs

Although there are a number of USFs that make references to or policy statements regarding **some** aspect of digital inclusion, it is important to note that references to the various elements of digital inclusion do not necessarily translate into concrete policies or implementation of projects to address these critical requirements. In many cases, although intentions may be honourable, the reference to services for persons with disabilities, connectivity requirements for anchor institutions and programmes targeting girls and women or indigenous peoples may be simply that – a mention. In some instances, although there are provisions in the fund mandate, the fund is not yet active so there is no tangible evidence at this stage of any digital inclusion efforts. The table below outlines the digital inclusion provisions or activities as currently reflected in the USFs contained in this study. Further details are included in the individual country tables included in **Part III**. It is very obvious from the examples below that there is much to be done globally in terms of either encouraging USFs that have a written policy including girls and women to develop concrete activities to address this

[52] Connect A School, Connect A Community, ITU, Module 5, Community ICT Centres for the Social and Economic Empowerment of Women, page 23

[53] http://women.telecentre.org

[54] Ibid.

[55] http://itu4u.wordpress.com/2013/03/08/itu-celebrates-international-womens-day/

[56] Ibid.

population segment or, in the cases where the USFs currently have no such articulated policy, promoting the expansion of the USF mandate and policy to incorporate girls and women (as well as indigenous peoples if and where appropriate). Those countries highlighted in pale grey are either inactive or have low activity levels.

Region	Country	Components of USF Support for Specialized Groups (Disabled, Elderly, Women); Connection of Anchor Institutions
Africa	**Burkina Faso**	Fund supports special services for persons with disabilities and elder persons
	Ghana	▪ Community Information Centres Project targeting the general community members, school children, youth out of school, women and women's groups, non-governmental organisations and local government authorities. ▪ Disability Employment Project: Easy Business Centres for Persons with Disability. ▪ School Connectivity Project: providing educational institutions with high speed computers, printers, scanners, projectors, etc., linked with internet access.
	Lesotho	Primary objective for universal service is basic access for everyone through universal network coverage, although the Strategy 2007 also recognizes the concerns of the people with disabilities or disadvantaged groups. 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.
	Mali	Priority given to health services, education and handicapped individuals.
	Mauritius	The 2013 USF Budget includes providing visually impaired students with Braille personal computers free of charge.
	Mozambique	Hospitals and schools located in rural areas can benefit from the fund.
	Nigeria	Special services for persons with disabilities and elder persons and connectivity for schools and health centres.
	RSA	Funding of public schools and public Further Education and Training Institutions; Some access centre programmes focus on people with disabilities.
	Rwanda	Connectivity of secondary schools in remote and rural areas
	Swaziland	Fund includes specific measure for disabled users.
	Tanzania	Approved projects need to satisfy that they will adequately deal with people with disability and people with special needs.
	Uganda	The universal service obligation includes services for people with disabilities. In addition, connectivity of health centres.
Arab States	**Mauritania**	Implementation of an Information and Telecommunications Centre for people with disabilities – training and services.
	Morocco	Project to equip 939 schools with 629 internet connections.
	Sudan	Connectivity of schools, universities and health centres.
Asia Pacific	**Afghanistan**	Schools and universities (affordable telecom and internet access) and rural health clinics are priorities.
	India	The Sanchar Shakti Initiative is comprised of projects aimed at improving access to ICT and ICT-enabled livelihood skills for women's self-help groups in rural India The Fund is also proposing a pilot project scheme for access to ICT and ICT-enabled services for disabled people in rural India
	Malaysia	▪ Persons with disabilities, children under protection, women under rehabilitation, low income urban areas.

		▪ Transformation of Information Department regional offices into mini community broadband centres.
	Mongolia	Pilot project providing broadband internet connectivity to the public as well as the schools in each rural village.
	New Zealand	Relay service for deaf, hearing impaired and speech impaired people.
	Pakistan	▪ Educational Broadband Centres (EBC's)[57] in every higher secondary school, college and library. ▪ Special projects for the disabled including telemedicine connecting hospitals via broadband with 12 remote sites; other programmes for visually impaired
	Thailand	▪ Services for education, medical and social services institutions. ▪ Services for persons with disabilities, seniors and underprivileged people. ▪ Discounted services for persons with disabilities.
	Vanuatu	Pilot project for Broadband Internet Access in remote rural school and health centre.
Europe	**Bulgaria**	USF to provide access to fixed voice telephone services under special conditions and/or providing terminals for the disabled or underprivileged.
	Czech Republic	Fund to support access to telephone service for disabled as well as establishment of special tariffs for persons with disabilities.
	Italy	Acknowledges special provisions for disabled users.
	Poland	Provision of facilities for the disabled.
The Americas	**Argentina**	Internet provision for 4,900 schools and 790 public libraries.
	Canada	Fund supports voice relay services for the hearing impaired; compensation subsidies are to telcos providing services mainly to the Innu, Inuit and other First Nations indigenous peoples.
	Chile	Internet connectivity for schools, libraries and health centres.
	Colombia	Free access to the internet in educational institutions.
	Dominican Republic	▪ Community access centres give access preference to students, teachers and professionals. ▪ The Digital Libraries programme installs computers with internet access and other media resources in public libraries. ▪ Services to the hearing impaired.
	Ecuador	Provision of internet connection to schools
	Jamaica	▪ Island-wide Broadband network (schools, libraries and Post Offices connected). ▪ Provision of broadband connectivity for hospitals/ health centres island-wide ▪ Computers and audio-visual equipment to six schools for the deaf
	Paraguay	Internet access for schools.
	United States	▪ Affordable telecommunications services, including broadband, to all eligible schools and libraries. ▪ Funding to eligible health care providers for telecommunications services, including broadband, that are necessary for the provision of health care.

[57] Includes free provision/ installation, no charges for a year, five PC's and two trainers for every centre

6. UNDERLYING USF FRAMEWORK ON A REGIONAL BASIS

6.1 Introduction

The following sections provide a broad sampling and a detailed overview of USFs on a regional basis (i.e., Africa, Arab States, Asia and the Pacific, Europe and CIS and the Americas). The number of USFs examined varies per region due to the size of the region and due to the number of funds that have been established. The following elements are addressed in each fund:

- underlying framework for each fund
- overall fund structure and administration
- form of USF contribution and the frequency of same
- services authorized under the existing framework
- funds which address some form of digital inclusion
- fund allocation and process
- governance
- current level of fund activity and financial reporting

In cases where either the fund definition or the fund activities include services/programmes for the disabled, connectivity of anchor institutions[58] or special services/programmes for women, specific examples of these forms of digital inclusion (when available) are provided in the individual country table in addition to having been summarized in table form above.

Each regional overview[59] also provides a summary of the **estimated** available funds (in USD) as well as **estimated** funds disbursed as of the 2010/2011. It is important to stress that both the level of funds available as well as the estimate of funds disbursed are likely **substantially understated** given the number of funds that do not provide any form of financial reporting. However, in summary, based on the fragmented information available, the **estimated** overall financial state of the USFs included in this study as of 2010/2011 is as follows:

- Total funds available **USD 23.2B**
- Total funds disbursed **USD 11.4B**
- Total funds remaining **USD 11.8B**

It is also important to stress that the level of detail provided in all the elements listed above of is not always consistent from fund to fund due to the current status of the fund, the availability of reliable information and the willingness or ability of the various fund administrators to share information.

6.2 Africa

Although on paper, there are many USFs established in Africa[60], there are challenging conditions regarding a number of the funds in place. One of the challenges frequently encountered in the African USF environment is that the fund may be well described and even the objectives clearly articulated, but the legal or regulatory framework needed to drive the funds has not been put in place. Another challenge is that currently, very few of the African funds permit the funding of broadband deployment and this, in a region that is in such need of broadband access. Conversely, Africa also has some

[58] Anchor institutions include universities, hospitals, sports facilities, performing arts and other cultural facilities (such as museums and libraries) and public utilities.

[59] with the exception of Europe and the CIS

[60] This refers primarily to sub-Saharan Africa as the North African countries are examined under the Arab States category.

extremely active funds with significant programmes and achievements, including in the area of digital inclusion as will be illustrated in the tables below. Africa is also home to some of the newest funds and a number of funds are also under development (e.g., Kenya).

Of the 22 African countries studied in this report, the funds can be categorized in the following manner:

- High activity - 3
- Moderate activity - 6
- Limited activity – 5
- Currently inactive - 8
- Allocation of funds for broadband is permitted - 4
- Addresses services for persons with disabilities – 9
- Addresses connectivity of anchor institutions - 8
- Addresses gender inclusion (women) – 1
- General provisions for tele-centres- 10

Only two funds demonstrated any form of regular financial reporting[61] although a number of funds do provide reports on individual project allocations.

It is **estimated** that as of the year end 2010/2011, the financial status of the African USFs included in this study was as follows:

- Total funds available **USD 575.6M**
- Total funds disbursed **USD 170.3M**
- Total funds remaining **USD 405.3M**

6.2.1 Burkina Faso

Burkina Faso	Year Fund Established: 2000 legal and administrative establishment. 2001 collection.
Underlying Framework for Fund	▪ Law 051/98/AN of 04 December 1998 defined the universal service policy. ▪ Decree no. 2000-408/PRES/MC/MCIA of 13 September 2000 related to the implementation of access to universal service for telecommunications – created the USF and defined universal service obligations. ▪ 2003 National Strategy to Develop Universal Service. ▪ The July 2004 Poverty Reduction Strategy Paper of the Ministry of Economy. ▪ Joint Order No. 2005-000006/MPT/MFB on the composition and functioning of the Management Committee of the Universal Service Fund (CGFSU). ▪ Law no. 061-2008/AN of 27 Nov. 2008 (transposing the additional act of ECOWAS and UEMOA Directive). ▪ Decree no. 2011-093 of 28 Feb 2011. ▪ 2010-246/PRES/PM/MPTIC/MEF Decree of 20 May 2010 fixing the rates and methods of collection of fees, levies and charges imposed for the benefit of the Electronic Communications Regulatory Authority.
Overall Fund Structure and	Fond d'Accès au Service Universel: the fund is managed by ARCE (Autorité de

[61] Financial reporting refers to an annual (or other consistent reporting period) statement of accounts that indicates total levies collected, total funds disbursed and total funds remaining in the Fund account.

Operation	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 Authorized 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, ▪ 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 – has not started disbursements – strategies issued but not implemented to date.** **No known financial reporting**

6.2.2 Cameroon

Cameroon	Year Fund Established: 2012
Underlying Framework for Fund	The Telecommunications Law was approved on December 21, 2010; Decree Nr. 2005/124 was approved on April 15, 2005 establishing the Ministry of Post and Telecommunications and Decree Nr. 2012/308 establishing the organization of the Special Telecommunication Fund.
Overall Fund Structure and Operation	The Telecommunications Regulatory Board of Cameroon (ART) is in charge of organizing 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 ▪ 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 Authorized 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 authorized 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 telecentres. 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 new.**

6.2.3 Cote d'Ivoire

Cote d'Ivoire	Year Fund Established: 1998 – legal establishment; 2006 – administration and collection
Underlying Framework for Fund	National Telecommunications Fund (FNT was established by Decree No. 98-625 of 11 November 1998 inside the National Treasury Fund (*Caisse Autonome d'Amortissement*).
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 Authorized 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.**

6.2.4 Democratic Republic of Congo

Democratic Republic of Congo	Year Fund Established: 2002 legally created, not yet functional.
Underlying Framework for Fund	Framework Act No. 013/2002 of 16 October 2002 on Telecommunications (2002). The Telecommunication Law plans the creation of the Fund (Art.39).

	Ministerial decree should govern fund's organization, its operations and the conditions according to which projects should be realized. Such Ministerial decree has not yet been issued.
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 Authorized 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**

6.2.5 Gabon

Gabon	**Year Fund Established: Legally on 2001: not yet set-up administratively.**
Underlying Framework for Fund	Law no. 005/2001 enacted June 27, 2001 related to Telecommunications Regulation established provisions for the financing of universal service obligations through the creation of a special universal service fund. The 2005 Decree No. 000544/PR/MPT Establishing the Modalities of Implementation, Financing and Management of Special Universal Service Fund revised the financing resources for the Fund.
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 organizations and territorial groups.
Services Currently Authorized 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.

6.2.6 Ghana

Ghana	**Year Fund Established: Launched in 2004, started in 2005 and distributed since 2006. Replaced in 2008.**
Underlying Framework for Fund	GIFTEL was established under the 2001 Ghana ICT Policy for Accelerated Development. GIFEC was established by the Electronic Communications Act 775, 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 Authorized 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 subsidized through GIFEC are prioritized 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 USD 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 provide ICT facilities to underserved areas is eligible to participate.
Governance	Board of Trustees of GIFEC: ten 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 twelve thousand 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 ten Post Offices with the requisite physical infrastructure to enable the delivery of basic Information Technology and telecommunication services in the pilot phase, then seventy 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 fifty 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.

6.2.7 Lesotho

Lesotho	Year Fund Established: 2009
Underlying Framework for Fund	▪ Lesotho Telecommunications Authority Act, 2000. ▪ The Universal Access/Service Strategy of 2007 created by the Lesotho Communications Authority. ▪ Lesotho Communications Authority Universal Access Fund Rules, 2009. ▪ Lesotho Communications Act 2012.
Overall Fund Structure and Operation	Lesotho Communications Authority (LCA) Universal Access Fund is operated 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 USD1.25M 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 Authorized Under the Existing Framework	Policy and regulation, the primary objective is basic access for everyone through universal network coverage, although the Strategy 2007 also recognizes 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 kilometre 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 un-served/underserved areas, telecentres, 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.
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.

6.2.8 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'Etudes 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 ▪ Local communities seeking to improve telecommunications in their areas.
Services Currently Authorized	Included in universal service are:

Under the Existing Framework	▪ Providing access to a public telephony network located no more than 10km 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; ▪ 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. All telecom operators are eligible.
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 ▪ Public access to and Private Service for voice and Internet. Part of the USO is used to partially fund 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.

6.2.9 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 organization 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 Authorized 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: 7 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 3 members from those nominated by the Ministers; the President of the General Assembly selects 2 members; and the President of the Financial, Cultural and Social Council selects the other 2. • General Director: 5 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 insurrection.

6.2.10 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, (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 ▪ **USD 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 Authorized 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[62].
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 WiFi 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 4 Community Public Access Points. On-going project: Under WiFi Mauritius, deployment of Wireless Fidelity (WiFi) Network to include workstations with free internet access for citizens without the necessary terminal equipment across 10 WiFi 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.

6.2.11 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	▪ All licensed and registered entities rendering telecommunications public services

[62] ICTA – Consultation paper February 2004

Frequency	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 Authorized 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 tele-centres 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. ▪ USD 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. USD 4 million.

6.2.12 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 Authorized 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 formally determine 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 $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

6.2.13 Niger

Niger	**Year Fund Establishment: 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 organizations.
Services Currently Authorized 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**

6.2.14 Republic of South Africa

Republic of South Africa	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, facilities leasing charges, government grants and subsidies). ▪ ICASA collects the contributions and sends them to the National Treasury.
Services Currently Authorized 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 per cent 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 Sept., 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 initiated.
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).

	Projects have consisted of tele-centres, cyber labs, multi-purpose community centres/Thusong service centres and under-serviced area licences (USALs). There were 27 underserved areas and USAL projects in 7 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

6.2.15 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 Authorized 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 Telecentres 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; ▪ 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 telecentres had already switched to fibre (112 out of 180 subsidized 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

6.2.16 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 liberalization 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 Authorized 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.

6.2.17 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 Authorized 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 utilized 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** **USD 6M** had been disbursed by 2009. Since then, the Fund has been inactive.

6.2.18 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; ▪ Development partner grants: current funds include a World Bank loan.
Services Currently Authorized Under the Existing Framework	The mandate under the law is to identify the rural and urban under-served 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 (USD 14 M) – policies ▪ Connectivity (USD 60 M) - extension of coverage and access to ICT services in rural areas ▪ e-Government Applications (USD 22 M) ▪ Project Management Support (USD 4 M) 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 USD 820,000 inadequate (in addition to a lack of geo-marketing and technical survey that would have been needed[63]) 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.

6.2.19 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 realization 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

[63] 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.

	expected that reliance on other funding sources is necessary to accelerate the achievement of universal service.
Services Currently Authorized 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); ▪ 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 3 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 2 page synthesis of the Implementation of the Universal Service Plan, mentioning the expansion of services to rural communities and underserviced areas but with no specific forecast or targets.

6.2.20 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 Authorized 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

6.2.21 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 of 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 Authorized 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. USD 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 fifteen 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); ▪ Computer labs in schools. In 2011 ZICTA set aside ZMK 59 billion (over USD 10 m) 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.

6.2.22 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 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 Authorized 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 ; ▪ 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.

6.3 Arab States

As regards USFs, the Arab States can be characterized as a region in which many telecommunications laws address the establishment of USFs, yet very few have actually been enacted. In a total of 22 countries[64], 15 have provisions in the law for the creation of a USF, yet only five actually have an operational fund in place. It is important to keep in mind that some of the Arab States are not only extremely wealthy but some have relatively small areas to cover, all of which may contribute to the lower prevalence of USFs. In addition, it is worthwhile to highlight that in the area of digital inclusion (in all aspects), the Arab States lag behind in areas such as services for persons with disabilities and connectivity of anchor institutions.

Of the seven Arab States included in this study, the funds can be categorized in the following manner:

- High activity – 2
- Moderate activity – 2
- Currently inactive – 3
- Allocation of funds for broadband is permitted - 4
- Addresses services for the persons with disabilities – 1
- Addresses connectivity of anchor institutions - 2
- Addresses gender inclusion (women) – 0
- General provisions for tele-centres - 3

None of the funds demonstrated any degree of regular financial reporting although, in the case of the Kingdom of Saudi Arabia (KSA), the fund is still very new and regular reporting may well follow.

Due to the limited financial reporting in the Arab States, no meaningful information can be provided with respect to collection and disbursement of funds.

6.3.1 Algeria

Algeria	Year Fund Established: 2003
Underlying Framework for Fund	Telecom Law Nr. 2000-03 on August 5th 2000 established the legal framework for the Universal Service Fund for both the telecommunications and postal services. Executive Decree Nr. 03-232 on June 24th 2003 established the objectives of the Fund as well as how it would be financed and disbursed. Decree Nr. 09 -310 on September 23rd 2009 reviewed and increased the scope of the Fund.
Overall Fund Structure and Operation	The Autorité de la Poste et des Télécommunications – ARPT – is the regulatory authority for both the Algerian Post Office and the Telecommunications Sector. It is supposed to manage the USF programme and to administer the fund by implementing the directions of the Ministry of Post, Information Technology and Communication.
Contribution Type and	Annual contribution is **3% of net revenues** of fixed, mobile and satellite operators.

[64] Including Palestine

Frequency	Also, the Fund may receive contributions from the Government when the contributions from the operators are deemed insufficient. Government funds are provided through the Ministry of Finance. As per the Government's Annual Reports from 2009 through 2011, no contributions from the Central Government were requested.
Services Currently Authorized Under the Existing Framework	From 2003 till 2009 the USF was to be used for the: ▪ provision of adequate telephone services to remote and low income areas (easy access, uninterrupted and at an affordable price) ▪ provision of public payphones ▪ provision of access to public and free emergency call service and directory information services In 2009, the scope of the USF was widened to cover internet and access to new technologies (e.g., broadband).
Fund Allocation Process	A competitive bidding process is to be carried out amongst all licensed operators.
Governance	The ARPT is expected to carry out its USF administration tasks independently through an Executive Director appointed by the President of the Republic, and a Board of Directors (7 members) whose Chairman is also appointed by the President of the Republic, while the other members are chosen from the telecommunication community for their expertise in different areas. Although this is listed as the fund governance process, if any of this activity is actually taking place, it is unknown to the operators and the general public.
Level of Activity	**Inactive** **No financial reporting** Although levies are applied to and collected from the operators, there is no known USF activity of any kind. The regulator does not indicate that any projects are being undertaken nor is there any form of public financial reporting as to the status or use of the funds.

6.3.2 Egypt

Egypt	Year Fund Established: 2003
Underlying Framework for Fund	Telecom Law of 2002 places the responsibility of establishing and managing a Universal Service Fund on Telecommunications Regulatory Authority (TRA) replaced by the National TRA in 2003.
Overall Fund Structure and Operation	Compensation to operators awarded US projects.
Contribution Type and Frequency	Derived from surpluses from NTRA budget.
Services Currently Authorized Under the Existing Framework	**First Stage:** basic telecoms services to low-income areas which are not economically feasible. Priority to the more populated of such areas with a minimum of 300 inhabitants. **Second Stage:** Increase average penetration rate in each governorate to 20%. **Third Stage:** Narrow digital divide between people accessing tele-services services on one hand and people deprived of these services, by means of gradual provision of Internet and data services to each region according to the administrative division of the governorate. **Fourth Stage:** Reaching a tele-density of 100% when measured by the number of fixed phone lines per family.
Fund Allocation Process	The NTRA administers:

	▪ Technical studies : data collection and classification; ▪ RFP (Request for Pricing); ▪ Tender for every pre-selected area; ▪ Supervision of the projects; ▪ Periodic evaluation.
Governance	NTRA sets regulations for provision of telecom services in remote areas or areas where service provision is not economically feasible. NTRA monitors the implementation of US projects to ensure their compatibility to timeframes as well as to technical and economic specifications.
Level of Activity	**Inactive** **No financial reporting** No published reports of any activity.

6.3.3 Kingdom of Saudi Arabia

Kingdom of Saudi Arabia	Year Fund Established: Policy established; 2006; Launched 2010
Underlying Framework for Fund	The Universal Access and Universal Service Policy was approved on June 17, 2006, by the Ministry of Communication and Information Technology. Decision Nr. 165/1428 established the Universal Service Fund (USF). The fund became operational in 2010.
Overall Fund Structure and Operation	The USF is formed by three bodies: the Board of the Commission; the Executive Committee and the Administration. The Board is the governing body and supervises and provides direction to the Administration. The Executive Committee is responsible for following up on the USF activities and issuance of all USF decisions necessary to manage and execute its duties. The Administration is responsible for the day to day operation and administration of the funds.
Contribution Type and Frequency	The USF is financed primarily by the monies collected through the USF fee: **1% of the net revenues** of the service providers designated by the Ministry. The fund also receives 'significant' amounts from the national budget.
Services Currently Authorized Under the Existing Framework	The USF is focused on financing new networks and/or services to provide universal access or universal services to geographic areas that are in the commercially unprofitable and underserved zones of the Kingdom. The USF is required to prepare programmes and projects in accordance with the following: **Programmes:** Macro scale USF initiatives aimed at achieving one or more of the objectives given to the USF, typically over the course of several years and to be implemented in stages based on funding availability. **Projects:** Specific micro scale implementation activities related to each USF Programme. One or more projects can be implemented at the same time, as they may cover different areas, population and or service. The main goals: provision of fixed or mobile telephony as well as internet services to all locations with more than 100 inhabitants.
Fund Allocation Process	Financial support from the USF is given as a one-time subsidy. The amount is determined by the USF as part of the competitive selection process. The amount is proposed by the Administration and included in the Operational Plan to be

	approved by the Board. Payments may be disbursed in a lump sum or according to milestones established in the Agreement signed with the provider. The USF may request bid and/or performance guarantees from the parties participating in the competitive selection process.
Governance	The Communications and Information Technology Commission (CITC) is the Regulatory Agency overseeing the Fund.
Level of Activity	**Moderate activity** **Financial reporting** Note: Because the fund is extremely new, it has not yet completed a large number of projects; however, the number of projects is definitely growing.

6.3.4 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 organization 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 generalization 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 Authorized 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 3040 villages with populations over 100,000 and rural areas with a population of 1000 in an area of 1,000,000 km2 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 activity** **No financial reporting** The telecommunication sector of the UAF is providing the following services[65] : ▪ 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.

6.3.5 Morocco

Morocco	Year Fund Established: 2005
Underlying Framework for Fund	Universal Service is governed by Law No. 24-96 of 7 August 1997, as amended and supplemented by Law No. 55-01 of 8 November 2004. This was complemented by the adoption of Decree No. 2-97-1026 of 25 February 1998, as amended and supplemented by Decree No. 2-05-771 of 13 July 2005.
Overall Fund Structure and Operation	Fonds du Service Universel des Télécommunications (FSUT) (Universal Service Fund) is administered by Comité de Gestion du Service Universel (CGSUT) (Universal Telecommunications Service Management Committee) under the direction of the Regulator, Agence Nationale de Réglementation des Télécommunications (ANRT). The CGSUT is chaired by the Prime Minister. The Management Committee is an interdepartmental committee composed of the Ministries of Interior, Planning, Finance, Telecommunications, National Defence, and of the Chairman of the Management Committee of the ANRT as well as the Director General of the ANRT. The Management Committee is responsible for determining the programmes for the implementation of universal service; proposing the content of tenders; reviewing the programmes offered by the operators; and approving the specifications for tenders submitted by the ANRT.
Contribution Type and Frequency	Levy of **2% of annual revenue** net of interconnection costs for licensed services on all operators (unless they opt for "play or pay" option). The fund may also receive any other contribution in the form of donations and bequests allocated under the development programmes of the Universal Service.
Services Currently Authorized Under the Existing Framework	Law No. 55-01 has extended the scope of universal service to include the provision of value added services (especially. access to the internet): ▪ basic telephone service of specified quality at an affordable price; ▪ delivery of emergency calls;

[65] www.access.mr

	▪ information service and directory; ▪ services related to land use planning, including payphones and other communications devices; ▪ value-added services including services allowing access to the Internet. The Fund has three priority areas: ▪ Rural public telephony; ▪ Installation of community centres; and ▪ Expansion of broadband capacity.
Fund Allocation Process	Moroccan legislators introduced the "pay or play" regime in 2004: operators can either pay their financial contributions to the Fund, or they implement projects approved by the Fund's Management Committee. Operators may submit their proposals to the Management Committee. Once validated, the project conditions are specified by the management committee. The Management Committee also designs projects as part of a government strategy for development of universal service, for which it announces competitive bidding to determine which operator will be responsible for the implementation of the USF project.
Governance	The Committee is required to prepare an annual report on its activities and the progress of the programme's implementation. However, this is not always issued.
Level of Activity	**High Activity** **No financial reporting** From 2004 through 2008, under the new framework, only Maroc Telecom and Meditel had chosen to fulfil their universal service obligations through the "play" option. Nine universal service projects were suggested by the operators and approved, included providing 1,556 rural villages with telecommunications services (voice and Internet access). These received MAD 600 M (**USD 68M**) from the FSUT in subsidies. CGSUT had implemented four universal service projects by 2009: ▪ roll-out of Internet via ADSL in 159 rural locations; ▪ GSM service to 126 new rural locations without coverage; ▪ developing 42 public access centres (teleboutiques) in the largest shopping areas; and ▪ the strengthening of GSM in 40 rural areas without coverage The PACT (Programme d'Accès aux Télécommunications) programme, with a budget of MAD 1.44 B, was adopted by the Management Committee (CGSUT) on November 20, 2006. The objective of the PACT programme is to provide access to telephony and the Internet in 9,263 rural areas not covered by the telecommunications networks i.e., about 2M inhabitants and more than 17% of the country's rural population. The "GENIE" (Généralisation des Technologies de l'Information et de la Communication dans l'Education) Programme, initially adopted in 2005 and further expanded in 2009, received a MAD 1B (USD 114M) subsidy. The ANRT issued a

	consultation with all operators for equipping 939 schools with 629 internet connections. Universal Service agreements were signed with five operators and deployment began in October 2010 and was completed in May 2011. In 2010, operators had provided computers pre-installed with digital resources to schools.

6.3.6 Sudan

Sudan	Year Fund Established: 2001
Underlying Framework for Fund	The ICT Fund was established as part of the 2001 National Strategy for Building the Information Society in Sudan.
Overall Fund Structure and Operation	Information Support Fund is administered by the regulator, the National Telecommunications Corporation (NTC).
Contribution Type and Frequency	**2 % of total gross revenues from** all licensed telecom operators. The Fund was financed by a fixed fee per voice/minute and a percentage fee on data imposed on all licensed telephone operators. The Fund is also financed by external support and contributions approved by the Council of Ministers.
Services Currently Authorized Under the Existing Framework	Universal service includes: ▪ Fixed line private residential service ▪ Individual mobile cellular service ▪ Dial-up Internet access ▪ Broadband ▪ Tele-centres ▪ Schools (primary, secondary post- secondary) ▪ Health centres ▪ Emergency services. The ICT Fund's main objectives are to support universal service and information society policies, bridging the digital divide and enhancing capacity building. The key focus areas for the ICT Fund are: ▪ Expand fixed and mobile phone service networks; ▪ Provide advanced services (such as Internet and e-mail); ▪ Support economic development taking advantage of communications infrastructure in different economic and commercial areas; ▪ Support basic services in education, health, Government via information and communications networks.
Fund Allocation Process	Competitive bidding process. The ICT Fund Council may use funds to deploy universal service community centres throughout the country.
Governance	The ICT Fund is supervised by the Director General of the NTC and a board of directors, as well as by Sudan's Minister of Telecommunications.
Level of Activity	**High Activity** No financial reporting

	Projects executed by the Fund for the year 2010 are as follows: ▪ Projects of National information centre: SD 5,055,323 (USD 1.9M) ▪ Projects of Nile for Technical Research: SD 4,597,837 (USD 1.7M) ▪ E-government projects: SD 15,624,113 (USD 5.85M) ▪ Computers for schools and universities and relevant aspects: SD 6,612,500 (USD 2.5M) ▪ Schools labs: SD 6,631,496 (USD2.48M) ▪ Comprehensive service centres: SD 1,837,549 (USD 0.7M) ▪ Universities: SD 608,214 (USD 228,000) ▪ Health project: SD 1,522,041 (USD 570,000) ▪ Project of Switchboard of National Internet: SD 1,793,295 (USD 672,000) ▪ Studies and research– external participation: SD 205,780 (USD 77,000). By 2009: ▪ 5 year plan to build 2,500 knowledge centres; ▪ 5 year plan to build a computer lab in all 5,000 schools, and; ▪ 5 year plan to distribute two million computers to every home and to academics. By 2008: ▪ Computer for Every Home project; ▪ School computer project; ▪ Electronic Government Support Project; ▪ University Information Network Project; and ▪ Nationwide deployment of universal service community centres established in the roll-out and deployment plans of licensed operators.

6.3.7 Tunisia

Tunisia	Year Fund Established: 2001
Underlying Framework for Fund	Telecommunications Law Nr. 2001-01 of January 15th 2001 established the need for basic services to be provided to all the people of Tunisia. Law Nr. 2002-46 on May 7th 2002 and Law Nr. 2008-01 on January 8th, 2008 extended the coverage to new technologies.
Overall Fund Structure and Operation	Instance Nationale des Télécommunications – INT – created by Telecommunication Law Nr. 2001-01, is the regulatory authority in charge of the administration, regulation and management of the telecommunications sector, including the USF.
Contribution Type and Frequency	All telecom service providers are required to comply with the universal service requirements. The rates applied for the provision of services are to be approved by the Ministry in charge of telecommunications. The State may grant compensation for the expenses incurred. The Ministry of Communications is currently engaging with licensed operators regarding the percent levy to be applied.
Services Currently Authorized Under the Existing Framework	Access to basic telephone services to all Tunisians. The programme is geared to provide services to underserved populations or those living in remote areas, providing similar basic services to all with equal access to free emergency calls, telephone directories (printed or on line). Lately, access to internet and new technologies has been added as a way to promote technical, economic and social development.

Fund Allocation Process	Competitive bidding via invitation preceded by a pre-selection stage
Governance	INT is formed by two bodies in charge of the regulation of the telecom sector: (The College) and another body in charge of the administrative and financial services (Board of Directors). There is a President, designated by Decree and a Permanent Secretary who have oversight of these two bodies. The 7 members of the College are named by Decree, drawing upon individuals from the legal and telecommunication communities. The Board of Directors is formed by 5 members chosen by the President from names suggested by the Ministry of Finance as well as the Prime Minister.
Level of Activity	**Inactive** **No financial reporting** Although the framework is in place, there are only funds collected for a separate ICT fund which is frequently confused with the USF. Therefore, there is no known USF activity of any kind until the government decides how to move forward.

6.4 Asia and the Pacific

The Asia Pacific region has a considerable number of functioning USFs and is also one of the two leading regions in which there is a high level of activity amongst the funds. It also displays a greater focus than other regions as regards the deployment of broadband through the use of USFs. In addition, the Asia and Pacific region is the one in which the greatest attention is given to the need for digital inclusion of women (although clearly much greater focus and attention are still needed).

Of the 16 Asia Pacific countries included in this study, the funds can be categorized in the following manner:

- High activity – 8
- Moderate activity – 2
- Low activity - 1
- Currently inactive – 5
- Allocation of funds for broadband is permitted - 9
- Addresses services for persons with disabilities – 5
- Addresses connectivity of anchor institutions - 6
- Addresses gender inclusion (women) – 3
- General provisions for tele-centres - 5

A total of four funds had some degree of regular financial reporting. It is **estimated** that as of the year end 2010/2011, the financial status of the Asia Pacific USFs included in this study was as follows:

- Total funds available **USD 7864.9B**
- Total funds disbursed **USD 2228.7B**
- Total funds remaining **USD 5636.2B**[66]

6.4.1 Afghanistan

Afghanistan	Year Fund Established: 2003
Underlying Framework for Fund	In 2002, Afghanistan began its telecommunications reconstruction programme. The Afghan Telecommunications Law stated that the Afghan Telecommunications

[66] India accounts for over 50% of the remaining funds.

	Regulatory Authority (ATRA) must establish access to telecommunications services and ensure its availability. In 2003, ATRA established the Telecommunications Development Fund (TDF) as a means to achieve universal access and as a tool to remedy the inadequacy of rural telecommunications facilities.
Overall Fund Structure and Operation	The Telecommunications Development Fund (TDF) constitutes a financial mechanism that creates economic incentives for private investment in network expansion and service delivery while maintaining market conditions under the management and supervision of the ATRA Board. The Universal Access Department (UAD,) a separate unit within the ATRA's organization, carries out the activities related to the TDF and reports to the ATRA Board via the Secretary General. UAD consists of a Director and six employees with skill sets that include contract/legal/financial/regulation knowledge as well as engineering and managerial/team building skills.
Contribution Type and Frequency	**2.5% of net revenues** of all licensed service providers. Other sources of funding are also available to the TDF, such as funds from USAID (US Agency for International Development and the World Bank – two major donors to the funds – ITU, UNDP, and the governments of China, India, Iran and Korea have offered support to many of the projects proposed by the TDF regarding the main cellular operators.
Services Currently Authorized Under the Existing Framework	Increase penetration in rural and un-served areas through installation of wireless base stations. Telecom coverage will be a priority for: ▪ Small and large villages; ▪ Clusters of villages; clusters of sporadically located houses; ▪ Schools and universities (affordable telecom and internet access); ▪ Rural health clinics (telecom and internet discounted rates, passed on to programme participants); ▪ Groups of nomads on the move; Specific deliverable are: ▪ A Public Calling Office (PCO) for every village with a population of between 100 and 1,000 and clusters of more than 100 houses; ▪ A Tele-centre I (Voice telephony, internet, fax) for every village with 1,000-2,000 population; ▪ A Tele-centre II (Voice telephony, internet, fax, computer training facility) for every district in rural areas; ▪ A mobile phone or mobile Internet kiosk for major nomad groups (100-200 population); ▪ At least one telephone line and at least one Internet access line for every rural school; and ▪ At least one telephone line and at least one Internet access line for every village health clinic.
Fund Allocation Process	TDF subsidies are distributed through competitive awards. Applicants will be invited through public tenders to bid for the provision of the required services in the designated rural areas.
Governance	ATRA is an independent agency reporting to Minister of Communications and IT, and its administrative costs are funded by monies collected through the

	application of its regulatory duties. ATRA defines all administrative, procedural and substantive rules. ATRA works in consultation not only with the Ministry of Communications and Information Technology, but with the Ministry of Rural Rehabilitation and Development, the Ministry of Public Health, the Ministry of Education, the Ministry of Agriculture and all telecom and Internet service providers. It should be noted that the entire senior fund admin team is being or has been replaced
Level of Activity	**High Activity** **No financial reporting** The fund currently has 3 project rounds planned as follows: ▪ Provide services in rural and un-served areas of the country ▪ Provide services to allow access to internet to public education; and ▪ Provide services for disabled and people under the poverty line These programmes were approved on 2008, to be completed within 5 years. Due to the changes in the management group of the Funds, they were reviewed in 2012, and there is still no published information about the revised target dates. Difficult geography, climate conditions and security concerns have resulted in ongoing delays but of the first of the 3 project rounds, 61 out of 62 sites are now on air. Of the second round, out of 76 sites, only 3 have been completed.

6.4.2 Australia

Australia	Year Fund Established: 1999
Underlying Framework for Fund	The Universal Service Obligation (USO) was incorporated in the Tele-communications Act of 1999 to ensure all people in Australia, no matter where they live, have reasonable access to standard telephone services, payphones and prescribed carriage services. The Minister for Communications, Information Technology and the Arts determined that Telstra is the primary universal service provider for the whole country in respect of the service obligations.
Overall Fund Structure and Operation	Australian Communications and Media Authority (ACMA) is the Regulatory Agency.
Contribution Type and Frequency	Levy on licensed operators depending on market share of eligible revenue. ACMA uses the eligible revenue to determine each carrier's contribution to the USO subsidies. In June 2011, ACMA made a written assessment of each carrier's eligible revenue for the 2009-10 period. This was used to determine the amounts each operator must contribute as the USO levy for the 2010-11 period in September / October 2011.
Services Currently Authorized Under the Existing Framework	Under the Telecommunications Act Telstra must achieve the following goals: ▪ standard telephone services accessible to all; and ▪ payphones reasonably accessible to all people on an equitable basis. Based on the regional consultations and other considerations, the Australian government launched a series of changes to the USO scheme as well as many other aspects of the existing regulatory framework. One of the key elements of the revised framework was the announcement of the creation of the National Broadband Network (NBN) - a new high-speed broadband network comprised of

	fibre-optics, fixed wireless and next-generation satellite all intended to provide faster, more reliable broadband access to all Australian premises. The NBN will be Australia's first national wholesale-only, open access, high-speed broadband network. NBN Co Limited is the company established by the government to design, build and operate the NBN (it is estimated that the project will take ten years in total). The construction of the network will be funded primarily by the government with some private sector participation. The full impact on the current USF is still under definition.
Fund Allocation Process	The government determines the level of subsidy paid to the USO provider. Previously a USO model was used but subsidy amounts are now administratively determined based on previous modelled amounts.
Governance	ACMA Board of Directors.
Level of Activity	**High Activity** **Financial reporting** Amount paid for the period 2010 – 2011 to TELSTRA, the service provider: AUD 57.7M equivalent to USD 58.2M.

6.4.3 Bangladesh

Bangladesh	Not yet established – under formation
Underlying Framework for Fund	Bangladesh's mobile coverage has made services available to over 99% of the population. The government indicated in 2010 there is no need per se of a USO programme for mobile telephony. However, on Nov.10, 2011, the creation of a USOF was announced.
Overall Fund Structure and Operation	Not yet known.
Contribution Type and Frequency	Operators will be required to contribute **1% of audited gross revenues**.
Services Currently Authorized Under the Existing Framework	Not yet known.
Fund Allocation Process	Not yet known.
Governance	Not yet known.
Level of Activity	**Fund not yet active** **No financial reporting**

6.4.4 China

China	Year Fund Established: 2002: not operational
Underlying Framework for Fund	Telecom Law on July 2002 has yet to be fully enacted.
Overall Fund Structure and Operation	Village to Village Programme – Ministry for Information Industry unveiled the blueprint in July 2002.
Contribution Type and Frequency	The unconnected rural areas across the country were grouped into regions and assigned to one of the major telecom operators (China Telecom, China Netcom, China Mobile, China Unicom, China Railcom, and China Satcom) in accordance with the company's size and financial capacity.

Services Currently Authorized Under the Existing Framework	Main objective is provision of voice telephone service to all villages. Universal telecom service is intended to be via the "New Three Fs[67] Policy" (meaning concerns for the village, peasants, agriculture), continuing the projects of the "telephone installation in every village" and the model projects of the ICT in all villages and townships.
Fund Allocation Process	N/A as has not yet been determined. Government provides subsidies to encourage construction and maintenance of nationwide networks and to increase service in mid-western China.
Governance	The Ministry for Information Industry is the manager, supervisor and Regulator for the programme.
Level of Activity	**Inactive** **No financial reporting** Universal Service Organization still in the planning stage.

6.4.5 Fiji

Fiji	Year Fund Established: 2008
Underlying Framework for Fund	Telecommunications Promulgation 2008 – Established: ▪ Telecommunication Authority of Fiji - TAF ▪ Functions and Powers of the TAF ▪ Finance of the Authority ▪ Regulation of Telecommunications ▪ Universal Service Fund among other related issues.
Overall Fund Structure and Operation	The TAF is the regulatory body and is responsible for the overall activities of the Fund. The TAF has appointed the Universal Service Advisory Committee consisting of the following members appointed by the TAF: ▪ The Chief Executive Officer of the Authority; ▪ The Chief Executive Officer of the Ministry of TIC; ▪ The Chief Executive Officer of the Commerce Commission; ▪ The Chief Executive Officer of the Ministry responsible for provincial development; ▪ The chief Executive Officer of the Ministry responsible for national planning; Representatives of the licensees – not to exceed 3, and selected by the TAF.
Contribution Type and Frequency	The TAF, upon direction of the Minister of TIC will collect a prescribed percentage of licensees' gross revenues[68]. Also, the Fund will receive any money allocated by Parliament for this purpose, as well as grants, contributions or loans from international organizations and/or donors.
Services Currently Authorized Under the Existing Framework	The objective of the USF is to allow all the people in Fiji wherever they reside or carry on business, reasonable access on an equitable and affordable basis to services, including: ▪ Basic telephone services using either fixed or mobile or any other technology; ▪ Public call centres and shared phones;

[67] Refers to Chinese phrasing; English translation does not yield '3 F's')

[68] to be determined by the Minister

	▪ Internet access; ▪ Any other services requested by the Ministry of TIC on the recommendation of the TAF. The USF is applicable in specific areas – the universal service areas – chosen by the Ministry in consultation with licensees, the Minister responsible for the provincial development and members of the public. The universal service areas must meet the following criteria: ▪ Level of current services is non-existent or considerable poorer than in the more advanced areas of the country; ▪ The cost of providing services in the area is such that it is not considered reasonable on a commercial basis.
Fund Allocation Process	For the purpose of providing funding under the USF system, the TAF calls for tenders, and the tender includes: ▪ Description of the universal service area to be served; ▪ Description of service required, including time limits; ▪ Maximum available funds for the project; ▪ The timeline for the disbursement of funds; ▪ Information about licensing requirements; ▪ Any other matter related to the services required.
Governance	The Fund is to be kept in and administered by the Ministry of Finance.
Level of Activity	**Not yet active** **No financial reporting at this stage** Awaiting Ministerial approval to move forward

6.4.6 India

India	Year Fund Established: 1999
Underlying Framework for Fund	In 1999 the Union Cabinet approved the New Telecom Policy (NTP 99) establishing the Universal Service Obligation Fund (USOF) and its goals. Subsequent Acts and Amendments have been updating the provisions for the USOF as to incorporate mobile services and broadband connectivity. The constitution, powers and functions of the USOF Administrator are regulated by Decree Nr. 17-3/2002 published on September 6th, 2002.
Overall Fund Structure and Operation	The Administrator of the USOF is appointed by the Prime Minister and the Deputy Administrator is selected by an Inter-Ministerial Advisory Committee chaired by the Administrator, with members from the Ministry of Communications and Information Technology, Ministry of Finance, Ministry of Law and the Telecom Regulatory Authority of India, and members selected by them from the telecom industry. The Administrator has full powers of implementation within the overall approved budget and in accordance with contracts/agreements signed with successful bidders. However for operational, technical and financial matters the Administrator may consult with the Department of Telecom Regulatory Authority of India and professionals/experts in the areas of telecommunications, finance, economics and managements as required by the Administrator. The functions of the USOF administration are as follows: ▪ Formulate USOF projects provided for in the ITR's in consultation with the telecom service providers and various stakeholders

	▪ Design and carry out bidding process ▪ Enter into implementation agreements with Universal Service providers (USP's) ▪ Monitor implementation of USOF projects and distribute subsidies in accordance with the USOF agreements ▪ Design the format of various records and returns to be maintained by the USP's ▪ Carry out post implementation review of USOF schemes ▪ Budgeting and auditing of USOF activities ▪ Interface with international organizations (e.g., ITU) and other USF's
Contribution Type and Frequency	Funds are raised by a "Universal Access Levy" (UAL) as a percentage of the revenue earned by all operators under various licences, and decided in consultation with the Telecom Regulatory Authority of India (TRAI). The percentage has been fixed at **5% of the Adjusted Gross Revenue** of all telecom service providers. In addition, the Central Government may also give grants and loans.
Services Currently Authorized Under the Existing Framework	As per NTP 99, USOF goals were: ▪ Provision of Voice and Low speed data service to uncovered villages by 2002; ▪ Achieve internet access to all district headquarters by 2002; ▪ Achieve telephone on demand in urban and rural areas by 2002. As per the Indian Telegraph (ITR) Amendment in 2004 and subsequent amendments in 2006 and 2008, the following services are supported by the Fund: **Stream I:** Operation and maintenance of Village Public Telephones (VPT) and installation of VPTs in additional revenue villages as per Census 2001 Provision of a second public phone in villages where the population is more than 2000 and no public call office exists Replacement of Multi Access Radio Relay Technology (MARR) VPTs installed before 2002 **Stream II:** Provision of household telephones in rural and remote areas **Stream III:** Creation of infrastructure for provision of Mobile Services in rural and remote areas **Stream IV:** Provision of Broadband connectivity to villages in a phased manner **Stream V:** Creation of general infrastructure in rural areas for development of telecommunications facilities **Stream VI:** Induction of new technological developments in the telecom sector in rural areas. Pilot projects to establish new developments in the telecom sector
Fund Allocation Process	Funds are awarded by least subsidy auction.
Governance	In November 2002, the Government of India, through the Department of telecommunication, created the" Office of the Universal Service Fund Administrator" (OUSFA)which functions as an Attached Office to the Department of Telecom. The OUSFA has and Administrator, deputy administrator/ directors as needed and support personnel. The Administrator chairs an Inter-Ministerial Advisory Committee, consisting of officers from the Ministry of Finance, Planning Commission, Ministry of Law, Department of Telecommunications, the TRAI and professionals/experts in the areas of telecommunications, finance, economics and managements as required by the Administrator.
Level of Activity	**High Activity**

	Financial reporting ▪ **Village Public Telephones:** As of March 2012, 580,556 villages have been given access to services. ▪ **Replacement of MARR based VPTs:** As of March 2012, 186,872 village public telephones have been replaced. ▪ **Provision of Rural Community Phones:** Provision of community phones to rural centres with more than 2000 people was achieved in a 3 year period. ▪ **Individual Access** o **Rural Household Direct Exchange Lines (RDELs)**: Agreements were signed for installation during the period April 2005 to March 2007. These RDELs were to be installed in 1685 areas. The date to fulfil the agreements was later changed to March 2010, at which time the achievement was 100%. o **Mobile Infrastructure**: Under this initiative, 7387 mobile sites are being rolled out across 500 districts and 27 states, bringing mobile services to approximately 200,000 villages which had been devoid of service. The initiative is based on sharing of subsidized passive infrastructure by 3 telecom service providers that will put up their own active infrastructure and roll out wireless services. As of March 2012, 7306 towers had been commissioned. A second phase of this programme has been planned to be launched to cover even more sparsely populated uncovered areas[69]. The USOF lists many potential projects in the pipeline (e.g., rural office connectivity, improved ICT access for the disabled, renewable energy to sustain delivery of rural telecom networks, gender specific initiatives, etc.). For example, the Sanchar Shakti Initiative is comprised of projects aimed at improving access to ICT and ICT-enabled livelihood skills for women's self-help groups in rural India. At present, Memoranda of Understanding have been signed under this programme for "proof of concept" of nine mobile value-added services (MVAS) pilot projects. The projects focus on breaking the dependence on intermediaries when it comes to access to input and final product markets for self-help groups engaged in cottage industries (textiles, bee-keeping, handicrafts, etc.). The current project covers about 20,000 self-help groups in various areas of India. The Fund is also proposing a pilot project scheme for access to ICT and ICT-enabled services for disabled people in rural India. Despite all this activity, spending is not keeping pace with contributions.

6.4.7 Indonesia

Indonesia	Year Fund Established: 1999
Underlying Framework for Fund	In 1999 the Tele-communications Law No.36 established that every telecomm provider has to contribute to the universal service obligation, to provide infrastructure and service or other compensation. Government Regulation No.52 on 2000 created the USO, to provide access to telecommunications services. On

[69] www.usof.gov.in

	2007 the USO service was expanded to information technology through Ministerial Regulation No. 11.
Overall Fund Structure and Operation	BTIP (Balai Telekomukasi dan Informatika Perdesaan) the Authority for Rural Tele-communication and Information Technology, a non-profit public service institution has been established to manage the USO Fund.
Contribution Type and Frequency	In 2009, Government Regulation No.7 established that the contribution to the USO would increase from 0.75% to **1.25% from gross profit** charged to all telecom providers.
Services Currently Authorized Under the Existing Framework	Provision of telecommunications and information technology services - public phone service 24 hours a day; Independent technology; local content priority; Internet and broadband also.
Fund Allocation Process	USO Fund is distributed through BTIP under the State Budget Mechanism. Subsidy goes to villages through the Operator to provide Access and Services. All contracts are performance based and with a multiyear budget allocation.
Governance	Directorate General of Posts and Telecommunications is the Regulatory Agency (BRTI).
Level of Activity	**High Activity** No financial reporting. ▪ 2003 - installation of telephony services in 3,010 rural villages ▪ 2004 - 2,341 additional villages received telephony services ▪ 2010 – additional 26753 villages covered ▪ 2011 – 8 capital city internet exchanges ▪ Internet service centres at Sub-Districts: 5706 centres out of 5748 completed ▪ District Mobile Internet service centres:1073 out of 1907 completed ▪ Monitoring and Management System for the Internet Service Centre installed at BPT3I office As regards the last three projects, as of the last published report in 2011, these projects were still in progress.

6.4.8 Malaysia

Malaysia	**Year Fund Established: 1998**
Underlying Framework for Fund	The Universal Service Policy was established in 1998 to regulate the country telecom, and to provide communication access to underserved areas. The policy was later updated to prioritize providing collective access not only to basic phone service but also to internet services and broadband.
Overall Fund Structure and Operation	The Fund is controlled and operated by the regulator, the Malaysian Communications and Multimedia Commission (MCMC).
Contribution Type and Frequency	Fixed and mobile network operators contribute **6% of their weighted net revenues (calculated through a formula)** to the Fund. The contributions for the Fund began in 2002.
Services Currently Authorized Under the Existing Framework	Basic telephony and internet access; public payphones in rural areas. Subsequently updated to include broadband. In addition, the US has not been confined to the telecom industry, but extended to broadcasting and information technology. ▪ Broadband access service provided to any area where the penetration rate for broadband subscribers is below the national penetration rate, or where the services are not sufficiently available as may be determined by the MCMC

<table>
<tr><td></td><td>

Public cellular service provided to any area with a population density of 80 persons per square kilometre or less, or where public cellular services are not sufficiently available as may be determined by the MCMC
Public switched telephone network (PSTN) service provided to any area where the PSTN subscriber penetration rate is 20 per cent below the national rate, or where they are not sufficiently available as may be determined by the MCMC
A group of people linked by similar characteristics from a socio-cultural or economic perspective within a served area which does not have collective and/or individual access to services.
Persons with disabilities, children under protection, women under rehabilitation, low income urban areas.

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<tr><td>Fund Allocation Process</td><td>Malaysia telecom authorities plan, manage and invest the funds as per the Government’s plans. No input from industry has been requested.</td></tr>
<tr><td>Governance</td><td>Malaysian Communications and Multimedia Commission (MCMC) is the Regulatory Agency.</td></tr>
<tr><td>Level of Activity</td><td>High Activity
Financial reporting
<table>
<tr><th>USP Project</th><th>Status of Project</th></tr>
<tr><td>Basic Telephony: The provision of basic telephone infrastructure and services to USP designated areas</td><td>Pilot project began in 2002 and since then, around 57,500 households have benefited from the telephony project</td></tr>
<tr><td>Telecommunications towers for expansion of cellular coverage:
Building of telecommunications towers and facilities across the country including the East-West Highway and Time 3 projects in USP designated areas.
Construction of 873 telecommunications towers across the country including Sabah and Sarawak</td><td>Cellular coverage to popular areas of the country is expected to increase from 71% in 2004 to 97% by 2011.</td></tr>
<tr><td>Community Broadband Centres (CBC) and Community Broadband Libraries (CBL)
Communities in underserved areas have access to broadband services and ICT facilities
Basic ICT and content development training provided free at these centres by supervisors appointed from the local communities.</td><td>Phases 1 and 2 (impact and implementation study) have been completed. Phase 3 –Implementation in 121 sites is currently underway but not yet completed (commenced in 2012).</td></tr>
<tr><td>1Malaysia Netbook:
Distribution of 1Malaysia netbooks to qualified Malaysians.</td><td>Distribution in phases 1, 2 and 3:
Phase 1: 123.000 units of 1Malaysia Netbook allocated for distribution.</td></tr>
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	▪ For Phase 1, recipients of the netbooks are secondary students whose household income is less than MYR 3,000 and the recipients reside in a district where MCMC had established CBCs. ▪ It was expected that the project will contribute to an increase of 9% to the 50% broadband penetration target by the end of 2010 but there is no reported completion so far although Phase 3 is underway.	▪ Phase 2: Request for Proposal issued by MCMC on August 2010 and currently undergoing evaluation for award of project. ▪ Phase 3: Will be implemented after impact study conducted on Phase 1 and Phase 2 implementation.
	Mini CBC/ Pusat Internet Rakyat (PIR) ▪ Transformation of 121 Information Department regional offices around the country into mini community broadband centres or "Pusat Internet Rakyat (PIR)".	▪ Phase 1 of the project has already been completed whilst Phase 2 work is in progress and phase 3 was to be commenced by year end 2010 involving 121 sites.
	CBC-to-Home ▪ Expansion of broadband network coverage areas surrounding CBCs and CBLs to the communities surrounding CBCs and CBLs.	▪ Implementation of project involving 246 CBC areas was to begin by end 2010
	Collective Broadband Network/ *Kg. WiFi:* ▪ Provision of broadband network to identified rural communities. ▪ 400 villages identified across the country including Sabah and Sarawak.	▪ Pilot project began in July 2010 and 400 sites were to commence implementation nationwide by year end 2010. ▪ 7 Kg Wi-Fi have been established including 4 in Sabah and Sarawak.

6.4.9 Mongolia

Mongolia	Year Fund Established: 2006
Underlying Framework for Fund	A Universal Access Strategy was developed by the Government in 2005, creating the USOF in 2006. The programme has been progressively updated and substantially implemented by late 2009.
Overall Fund Structure and Operation	The Communications Technology and Post Authority ('ICTPA') was formed by Decrees Nr.64 (2008) and Nr. 05 (20090. ICTPA is responsible for policy formulation, planning, implementation and coordination. USOF is one of the Offices of the newly formed ICTPA.
Contribution Type and Frequency	**2% of net taxable income** from all operators.
Services Currently Authorized Under the Existing Framework	The fund was created to finance the delivery of essential communications services to un-served inhabitants and remote areas, and to construct, expand and renovate communications networks.
Fund Allocation Process	USOF is a publicly operated fund. Currently under discussion (as it appears to have

	slowed down) is the need for telecom operators to rejuvenate the USOF through the creation of a Public-Private partnership with an effective management board constituted with a majority by the operators.
Governance	Control of USOF transferred from CRC to Information, Communications Technology and Post Authority (ICTPA) but CRC remains as the Regulatory Agency.
Level of Activity	**Moderate Activity** Mostly based on pilot projects **Limited financial reporting** ▪ **Programme 1**: Telecom Services for Herders, i.e., provision of public access voice telephone service (possibly satellite-based) for 152 herder communities (baghs) that did not currently have access to telecommunication and information services; ▪ Programme 2: Soum Centre Wireless Networks, i.e., provision of wireless-based voice services in 90 soum centres, providing private and public voice services to the public; and ▪ Programme 3: Soum Centre Internet Service, i.e., establishment of data services in 34 soum centres providing broadband internet connectivity to the public, the school, and at least one public Internet access point (cybercafé) in each centre[70]. Between 2005 and 2010, the number of soums[71] with wireless access more than quintupled from 60 to almost 340.

6.4.10 Nepal

Nepal	**Year Fund Established: 2000**
Underlying Framework for Fund	The Rural Telecommunications Special Programme was created by His Majesty's Government in 2000. Later, Policy Nr. 2060 established the Universal Access to the Telecommunication Service to provide services to the areas where services were not provided. It also established the Universal Service Obligation as a way to ensure the provision of services.
Overall Fund Structure and Operation	Rural Telecommunications Development Fund (RTDF)
Contribution Type and Frequency	**2% levy** on the revenues of the incumbent operator, ISPs and mobile operators.
Services Currently Authorized Under the Existing Framework	The main goal of the programme is to provide public access telephones. Not less than of 90% of funds are to be used for universal telephone access and not more than 10% for other relevant services such as internet.
Fund Allocation Process	Subsidies are distributed through competitive bidding.
Governance	Nepal Telecom Authority (NTA) is the Regulatory Agency.
Level of Activity	**Operational but inactive** **No financial reporting** Due to unresolved issues between the NTA and the Ministry of Telecom, the RTDF has not been awarding any new projects.

[70] Completion Report -Transaction support for the Implementation of the Universal Access Strategy of Mongolia – submitted to World Bank – Intelecon March 2, 2011

[71] Second level administrative subdivision of which there are approximately 329 nationally (also spelled sum)

6.4.11 New Zealand

New Zealand	Year Fund Established: 2001
Underlying Framework for Fund	The Telecommunications Act of 2001 established the Telecommunications Service Obligations (TSO). The Telecommunications Act requires that a review of local service TSO arrangements be commenced at the start of 2013. New TSO with Telecom Corporation and Telecom New Zealand was signed on November 2011 under the New Telecommunications Act approved in 2011.
Overall Fund Structure and Operation	Telecom is the TSO provider for the local residential telephone services. Sprint International is the TSO Provider for the relay service for deaf, hearing impaired and speech impaired people. A separate TSO requires Chorus[72] to provide input services to Telecom to enable it to meet its TSO obligations.
Contribution Type and Frequency	Costs for subsidizing telecommunications services supplied under TSO are funded through the Telecommunications Development Levy (TDL) collected from the telecom industry. The Commerce Commission determines the TSO charge to be paid to a TSO provider and the proportion of the TDL borne by each liable telecommunications service provider. The Telecommunications Development Levy was established in 2011 to: ▪ Pay TSO Charges for Telecommunications Service Obligations (that subsidize the provision of certain telecommunications services in the public interest); ▪ Pay charges for developing non-urban telecommunications infrastructure; ▪ Pay charges for upgrades to the emergency calling system; and ▪ Other purposes (case by case). For fiscal years 2010 through 2016, the levy has been set at NZ 50M per annum for each eligible service provider.
Services Currently Authorized Under the Existing Framework	N/A
Fund Allocation Process	N/A
Governance	A TSO is established through an agreement under the Telecom Act between the Crown and a TSO provider.
Level of Activity	**High Activity** **Financial reporting**

6.4.12 Pakistan

Pakistan	Year Fund Established: 2006
Underlying Framework for Fund	Universal Service Fund Company Limited (USF) was created by the Government of Pakistan under Section 42 of the Companies Ordinance 1984, at the end of 2006. The Ministry of Information Technology was in compliance with the

[72] Chorus is New Zealand's largest telecommunications infrastructure provider. Chorus was established as an independent business from 1 December 2011, following its demerger from Telecom Corporation of New Zealand Limited.

	Telecommunications Law issued on July 2003, the Mobile Cellular Policy issued on January 2004 and the Broadband Policy from December 2004.
Overall Fund Structure and Operation	USF will be controlled and monitored by the MoIT, and administered by an independent but wholly state-owned company.
Contribution Type and Frequency	**1.5% levy on the revenues** of all operators. All licensed operators contributing to USF are eligible to apply for all USF Contracts, including Special Projects.
Services Currently Authorized Under the Existing Framework	The fund is targeting rural penetration as well as universal access targets country wide, financing projects to provide basic telephony services, broadband services, fibre optic backbone network to rural and underserviced urban areas. Although the policy does not specifically mention person with disabilities, under services to be supplied under universal service contracts, it states that the contractors will be required to provide special services, infrastructure and equipment for persons with disabilities.
Fund Allocation Process	Universal Service Contracts are awarded using a "negative auction". The bid for the lowest amount of subsidy for the performance of each pre-defined contract will win the Contract. Obligations and Rights of USF contractors will be clearly specified in the Contract.
Governance	Universal Service Fund Company is a Corporation with an independent Board of Directors equally balanced between four members from the Government and four members from the private sector. The CEO is the 9th. Director of the Board. The four members from the Government are from the Ministry of Information Technology, including the Minister, and the four members of the private sector are nominees from fixed line licensees, mobile cellular licensees, data licensees and a representative of the Consumer Groups. The Chief Executive Officer is selected by the Government.
Level of Activity	**High Activity** **No financial reporting** **Rural telecommunications and e-services (basic telephony)**: targets some 10,000 unserved villages (approximately 50% of the country's total area); unserved villages have been divided into 26 lots; to date, ten lots having more than 6,000 villages have been contracted; 3,500 villages have been served so far. **Fibre-optic cables:** provision of fibre connectivity to all 115 sub-districts currently without connectivity. To date, 58 sub-districts have been connected by subsidizing the installation of 4,000 km. of fibre-optic cables. **Broadband:** 284 towns (representing 350,000 additional connections) have received broadband connectivity; the projects are being rolled out 'telecom-region' by 'telecom-region'. **Tele-centres in villages:** tele-centres are to be set up by the BSPs (Broadband Service Providers) and then run on a sustainable basis by a variety of organizations such as NGO's, corporate entities, local community organizations, Rural Development Organizations, etc.; includes almost free electricity using solar power or other alternative means, payment of the monthly broadband tariff by the USF and three year extended warranties on the ICT equipment delivered; as part of the

	programme, the subsidy winning BSP must also establish Educational Broadband Centres (EBC's)[73] in every higher secondary school, college and library in that area. To date 1,042 are operational and 131 are in progress, Subsidy winners also required to establish Community Broadband Centres, for those who cannot afford their own computers with 291 operational and 54 in progress so far operational, **Special projects for the disabled**: low vision labs in designated hospitals; equipment to assist in reading and listening for special needs individuals; telemedicine connecting three hospitals via broadband with 12 remote sites. In May 2008, the fund initiated the "Enabling persons with disabilities to use telecom services" project with the aim of increasing accessibility to IT and telecom for people with low vision and visual impairments. The fund also signed a contract with the Pakistan Foundation Fighting Blindness. The project will utilize USF funds to digitize the Audio World Library and establish an internet café at Darakhshan Rehabilitation Centre. It will also expand the foundation's accessible internet café at Islamabad. Of late, some attention has been diverted from the Fund likely in part due to forthcoming elections. In absence of a full-time Minister of IT, having the Prime Minister as head of the USF Co board has caused extensive delays in decision making; although the existing governance rules allow the USF Co. Board to move ahead without participation of its full-time Chairman, in reality, having the PM as chairman is likely to cause some hesitation amongst members to take such steps. The remaining unserved areas are in western Pakistan – an area of considerable turmoil, significantly dampening operator willingness to commit to USF projects there, even if the projects are financially attractive. The most recent CEO has been dismissed and his dismissal was followed by the departure of the CFO.

6.4.13 Philippines

Philippines	Year Fund Established: 1995
Underlying Framework for Fund	Telecommunication Law – Republic Act Nr. 7925 in 1995 - created the Universal Access Funds. Executive Order Nr. 264 in 2004 created the Commission on Information and Communications Technology (CICT) which issues the Strategic Roadmaps outlining the government's Agenda regarding telecommunication, infrastructure and services. All this changed on June 23, 2011, when President Aquino dissolved the CITC and abolished the positions of the CICT commissioners with Executive Order 47. The same EO created the Information and Communication Technology Office (ICTO).
Overall Fund Structure and Operation	The newly formed ICTO is under the Department of Science and Technology (DOST). ICTO has an Executive Director with the rank of undersecretary.

[73] EBC's are provided for every higher secondary institution, college or library in the area and include free provision and installation, no charges for a year, five PC's and two trainers for every centre

Contribution Type and Frequency	No information has been made public since June 2011.
Services Currently Authorized Under the Existing Framework	The goal is connectivity in all villages by 2015 to be achieved by: ▪ Service Area Scheme (Basic Telephone Service); ▪ Teleponosa Barangay - telephones made accessible in all rural areas; and ▪ Community e-Centres to provide the general public with internet, email, facsimile, etc. services.
Fund Allocation Process	All programmes and contracts have been stopped.
Governance	National Communications Commission (NCC) is the regulatory agency.
Level of Activity	**Inactive** **No financial reporting** Not operational since EO 47 dissolved the CITC and stopped all plans developed by the Commission.

6.4.14 Thailand

Thailand	Year Fund Established: 2001
Underlying Framework for Fund	In 2001, Thailand approved the Telecommunications Business Act which in Section 17 created the National Telecommunications Commission (NTC). In 2010, the New Act on Organization of Telecommunications, Chapter IV, established the Broadcasting and Telecommunications Research and Development Fund for the Public Interest (BTRDF) under the newly created National Broadcasting & Telecommunications Commission (NBTC).
Overall Fund Structure and Operation	NBTC is an independent government agency directed by eleven Commissioners with expertise in the broadcasting, telecom, financial and consumer protection fields appointed by the Senate for a 6 year term in charge of administering the Universal Service Obligation and the management of the BTRDF. The Law established that the Fund will have a "Fund Management Committee" consisting of the Chairperson of the NBTC, the permanent Secretary of the Office of the Prime Minister, Secretary General of the Office of the national Economic and Social Development Board, Director General of the Comptroller Department, and Director of the National Electronics and computer Technology Centre; one expert with knowledge and experience in human resources, four more members will have expertise in human resources, consumer rights, telecommunications and promotion.
Contribution Type and Frequency	By law, all networking licensees are obligated to provide services and the designated USO providers have to be responsible for all costs incurred from their investment. **Non-designated licensees** have to contribute **4.0% of their revenue** to the USF.
Services Currently Authorized Under the Existing Framework	Basic telecommunications services: ▪ Services in rural areas and low rate of return areas; ▪ Services for education; ▪ Religious, medical and social services institutions; and ▪ Services for disabled, seniors and underprivileged people. ▪ Free 30 minute phone card every month for persons with disabilities, low income and seniors registered with the Ministry of Social Development and Human Security for 30 months counting from the date of licence issuance. ▪ Provide at least one public telephone within 100 metres in radius for low income communities that submit a petition. ▪ Provide public telephone and other necessary services for persons with disabilities as per Act of Disability B.C. 2544.
Fund Allocation Process	Funds are disbursed through competitive bidding. Operators have a universal service obligation to extend service to unserved areas.
Governance	The Office of the NBTC is the regulatory agency. As the NBTC has not yet been configured as per the new Law guidelines, the NTC is still in charge of all the telecom activities as before.
Level of Activity	**High Activity** **No financial reporting** No activity reports in English

6.4.15 Vanuatu

Vanuatu	Year Fund Established: 2009
Underlying Framework for Fund	The Telecommunications and Radiocommunications Regulation Act No. 30 of October 19th 2009, mandates the Minister in charge of telecommunications to develop a policy for improving access to telecommunications service for locations which are not adequately served by existing services - Part 4 Section 17 of the Act.
Overall Fund Structure and Operation	The Telecommunications and Radiocommunications Regulator is appointed by the Minister in charge of telecommunications on the recommendation of an Evaluation Committee formed by the Governor of the Reserve Bank of Vanuatu, who is the Chairperson; a representative of the Judicial Services Commission who is not actively involved in the politics of any political party, and a senior officer of the Vanuatu Chamber of Commerce. This appointment must not exceed 3 years and can be extended for a further 3 years. The Universal Access Policy (UAP) Fund – Section 19 of the Act – is a Trust Fund administered by Regulator as Trustee. Funds in the UAP Fund are deemed to be public money. The Vanuatu Government is in the process of drafting its Universal Access Policy and its National ICT Policy.
Contribution Type and Frequency	A levy is applied against the net revenue of all services providers and is invoiced from 1st July to 30th June in the following year. In March 2012, the Regulator estimated a levy for the year ending March 2012 set at 0.71% of net revenue of the operators but did not invoice operators for the levy. For the year beginning July 1st 2013 to June 30th 2014, the Regulator has set the levy to zero. Any interested party can be a Fund donor. Their funding can be ring fenced for a defined project(s).
Services Currently Authorized Under the Existing Framework	The UAP Fund was established under the Act and is subject to the Minister's Universal Access Policy and/or specific conditions for voluntary contribution, the UAP Fund is to be applied (in order of priority) to: ▪ compensation payable to (Telecom Vanuatu Ltd.) TVL relating to TVL loss-making customers, pursuant to the Settlement Agreement; and ▪ subsidies to service providers as may be agreed whereby the Regulator may conclude contracts on behalf of the Government, for the payment of subsidies in consideration of the provision of telecommunications services in accordance with the UAP; subsidies are for unserved and underserved areas currently not provided by telecommunications service providers. In regards to compensation for losses, TVL was compensated in 2010. As such, the UAP Fund is now focusing on the provision of telecommunications services as provided for under the Act, and or as directed by the donor or any person providing donor funds into the UAP Fund for similar purposes.
Fund Allocation Process	Competitive tender process
Governance	Trust Fund administered by the Regulator as the trustee.
Level of Activity	**Low Activity – initial phases** **No financial reporting so far** Implementation Policy of MDG, Priority Action Agenda for 2006 – 2015 and the Telecommunications Policy Statement of 2007 ▪ Pilot project for a test case for Broadband Internet Access in remote rural school, health centre and surrounding community.

6.4.16 Vietnam

Vietnam	Year Fund Established: 2006
Underlying Framework for Fund	The Vietnam Public Utility Telecommunications Service Fund (VTF) is the agency responsible for administering the fund and is under supervision and regulation of the Ministry of Post and Telematics.
Overall Fund Structure and Operation	Ministry of Post and Telematics is the Regulatory Agency.
Contribution Type and Frequency	**3% of fixed line** operators' revenues; **4% of the revenue for international telephone service** and international lease-line subscription service; and **5% of mobile** operators' revenues.
Services Currently Authorized Under the Existing Framework	The VTF was established to subsidize end user charges and installations costs for 110,000 new fixed lines and 5,000 internet accounts, to develop 3,000 new public telecom service sites. 90% of communes are to have public telephones and 30% of communes are to have internet access.
Fund Allocation Process	Contracts assigned by the Fund contain all the details of the work to be done, the payments and all other conditions.
Governance	VTF is a State Financial Organization directly under the MPT, operating for non – profit goals; it is exempt from income tax and VAT. The Fund's managerial and executive apparatus consists of the: ▪ Management Board, formed by 5 members appointed and dismissed by the MPT. The Chairman of the Board is the Ministry of Post and Telematics. ▪ Control Board is composed of between 3 and 5 members, also appointed by the MPT, and ▪ Executive Board formed by the Fund's director and the deputy directors.
Level of Activity	**Moderate Activity** **No financial reporting** Specific objectives of the VTF were to ensure that, by 2010: ▪ teledensity in the areas provided with public-utility telecommunications services reached 5 telephone sets per 100 people; ▪ 100% of communes throughout country had public telephone service access points; ▪ 70% have public Internet service access points; and ▪ all citizens have the right to free access to compulsory telecom services. According to VTF, these policy targets were achieved in 2009, with 10.7 out of 100 people now using public telephones in remote areas and 4873 public telecoms access areas already established.

6.5 Europe and CIS

In Europe, the concept and use of USFs have been gradually diminishing. This is due in part to the legal difficulties and challenges being experienced by a number of funds as well as the general decision of the European Union to pursue other mechanisms to address and resolve universal service requirements (please refer to Part III **Section 7**), especially as regards the deployment of Broadband. In addition, in many European countries (but certainly not all), fixed and/or mobile universal service is close to being achieved. Nonetheless, funds still remain in Europe whereas in the CIS, very few funds have been established at this stage despite the coverage and service challenges that remain in many of the CIS countries.

The seven European funds plus the one CIS fund addressed in this study can be categorized in the following manner:

- High activity – 3
- Moderate activity – 1
- Low activity -- 4
- Allocation of funds for broadband is permitted - 2
- Addresses services for persons with disabilities – 4
- Addresses connectivity of anchor institutions - 1
- Addresses gender inclusion (women) – 0
- General provisions for tele-centres - 2

Only two of the funds demonstrated any degree of regular financial reporting.

Because the majority of the funds studied in Europe and the CIS are compensation funds and/or are currently involved in legal challenges, there is insufficient information upon which to provide any meaningful financial reporting.

6.5.1 Bulgaria

Bulgaria	Year Fund Established: 2005
Underlying Framework for Fund	Law of Telecommunications Prom. SG. 88/7 Oct 2003, as amended SG. 19/1 Mar 2005. Amended in 2010 with provisions on compensation rules for universal service.
Overall Fund Structure and Operation	Universal Service Compensation Fund is administered by the Communications Regulation Commission (CRC). Fund is managed by a Managing Board consisting of 5 members: ▪ Chairman appointed by CRC, Deputy chairman by Commission for Protection of the Competition, and members from Bulgarian National Bank, Ministry of Labour and Social Policy and Ministry of Finance.
Contribution Type and Frequency	**0.8% of voice revenues** minus certain interconnection and special access costs from all operators on an annual basis.
Services Currently Authorized Under the Existing Framework	Universal service obligations include: ▪ Initial connection to a public fixed telephone network and access to fixed voice telephone services; ▪ Access to fixed voice telephone service through public telephone sets; ▪ Telephone directory; ▪ Unbundled access to emergency calls; ▪ Access to fixed voice telephone services under special conditions and/or providing terminals for the disabled or underprivileged.
Fund Allocation Process	Operators may apply annually for compensation for losses from the provision of universal service. Large public operators required to provide universal services. Smaller operators can opt to participate in a tender competition.
Governance	The Managing Board of the Fund accounts for its activity by a report to the Minister of Transport and Communications, the Minister of Finance, the Minister of Labour and Social Policy, the Governor of BNB and the Commission for Protection of Competition. The Audit Office exercises control over the Fund's activity.
Level of Activity	**High Activity** **No financial reporting** Aims to achieve 100% broadband coverage by 2013.

6.5.2 Czech Republic

Czech Republic	Year Fund Established: 2002
Underlying Framework for Fund	▪ Act No. 151/2000 Coll., Telecommunication Act. ▪ Act No. 127/2005 Coll. on Electronic Communications. ▪ Decisions of National Regulatory Authority (NRA) with respect to individual US obligations and providers.
Overall Fund Structure and Operation	Universal Service Fund was set up as a dedicated (escrow) bank account administered by the regulator, the Czech Telecommunication Office (CTU). As of 2010, providers of universal service are reimbursed directly from the state budget.
Contribution Type and Frequency	Under the first USF (2001-2006) funds were supposed to be collected from all holders of a telecommunication licence. The amount the contributors were to pay was a share to cover the "demonstrable loss" of the provision of the US by the US provider, which was established based on their profit from the applicable year (revenues of the contributor minus some costs such as interconnection costs). Under the second regulation (2006-2009), all operators contribute to the "Net costs" of other services. Any contributor whose income for the applicable year is below CZK 10 million (EUR 40,000 or USD 50,000) does not have the obligation to contribute. In case the contribution should exceed **1% of revenues** of the contributor, the rest (above the 1%) was to be paid from the state budget. As of 2010 there is no USF for the future years and universal costs are to be reimbursed directly from the state budget.
Services Currently Authorized Under the Existing Framework	The following services were included in the US in 2001-2006: ▪ Public telephone service provided via public telephone network; ▪ Operator services; ▪ Free of charge uninterrupted access to emergency calls; ▪ Information service about telephone numbers; ▪ Obligation to periodically issue phone books and to ensure access to those books; ▪ Obligation to offer public pay phone services (phone booths); ▪ Discounts to disabled. Since 2006, the NRA had the mandate to order the USO provider to offer the following services: ▪ Connection in a fixed location to a public communication network; ▪ Access in a fixed location to a publicly available telephone service; ▪ Obligation to periodically issue phone books and to ensure access to those books; ▪ Information service about telephone numbers; ▪ Obligation to offer public pay phone services (phone booths); ▪ Access to telephone service for disabled; ▪ Special tariffs for disabled.
Fund Allocation Process	The NRA determines which obligations fall under universal service and appoints the US provider through a tender process. The US provider is to be reimbursed.

	For 2001-2006, a "demonstrable loss" (i.e., how much was spent on provision of the US by the provider) was confirmed by the NRA. Then, the NRA calculated the share of each contributor on the overall "profit" and applied the same ratio to determine what part of the "demonstrable loss" should be covered by each operator. Under the second regulation (2006-2009), the cost of US has been financed from two sources. The cost of US provided to people with "special social needs" in the form of special prices is reimbursed directly from the state budget. "Net costs" of other services are paid from the US account, where the NRA initially calculates the "net costs". Then it decides whether the net costs of provision of the US represent for the provider an "unbearable burden". If so, the NRA sets a percentage of profit of individual contributors and based on this it determines contribution amount that is proportionate to the share of all profits of all contributors.
Governance	RA has an obligation to provide explanations and annually to publish a Statement of Account Management in a Telecommunications Journal or the Annual Report. The 2001- 2006 decision of the CTU have been subject to judicial review.
Level of Activity	**Moderate activity** but operations will basically cease going forward. **Financial reporting** Compensation for demonstrable loss for 2001-2006 is still subject to legal delays. The defined scope of US services is diminishing as are the US costs that are being reimbursed..

6.5.3 France

France	Year Fund Established: 1997
Underlying Framework for Fund	The European Commission's concept of Universal Service is laid out in two Directives, the Voice Telephony Directive (1996) and the Interconnection Directive (1997). In accordance with these directives, France's Ministry of Communications issued a Universal Service Decree implementing the Telecommunications Act in 1996. The *Act* stipulates that geographically averaged tariffs and reduced-rate social tariffs (for specific categories of the population such as the disabled or less privileged) are required to ensure all consumers have access to universal services. All operators are entitled to participate in programmes to provide discounted services to qualifying low income users. Operators providing social tariffs will have the cost of the service deducted from the contribution they are obliged to make to the fund.
Overall Fund Structure and Operation	The Universal Service Fund is managed and administered by Caisse des Depots et Consignations, an independent financial institution with oversight by the Ministry of Economy.
Contribution Type and Frequency	All operators offering voice telephony are required to contribute to the fund; Operators are required to contribute two types of payments paying into the USF three times a year: An explicit surcharge paid in addition to interconnection charges; **A payment to the Fund that is a proportionate share of France Telecom's net universal service costs calculated on a pro rata basis** system linked to a carrier's traffic volume
Services Currently Authorized	According to the Telecom Act, the USF obligations include the provision of basic

Under the Existing Framework	telephony services at an affordable price, the free forwarding of emergency calls, the provision of information services, the establishment of public payphones over the French territory.
Fund Allocation Process	Allocation of funds is done by the Caisse in accordance with instructions issued by Autorité de Régulation des Communications Électroniques et des Postes ARCEP instructions. As of 2011, all payments were to France Telecom.
Governance	France Telecom is the public provider of universal services; however the law allows other operators to be designated as universal service providers if they are able to provide the range of services required nationally. The regulator until 2003 was the Autorité de Régulation des Télécommunications (ART) but the Regulatory Act of 2003 created the Autorité de Régulation des Communications Électroniques et des Postes (ARCEP).
Level of Activity	**High Activity** **Financial reporting** The Fund has been under fire by critics following complaints from the associations of French new telecommunication infrastructure and service providers. The European Commission took France to the Court of Justice of the European Communities regarding the financing of universal service and the method of calculating the costs to be paid to the fund by new entrants. The ruling, favouring the plaintiff, caused a setback when France not only had to repay USF amounts charged previously to operators but also, this ruling meant that other companies that had refused to pay could justify the non- payment into the fund during the four years that were in question.

6.5.4 Hungary

Hungary	Year Fund Established: 2004
Underlying Framework for Fund	Section 122 of the Act 100 on Electronic Communications Act of 2003, as amended by Act 174 of 2007. The Fund was established in October 2004 as a successor to the previous Universal Communications Compensation Fund by the Decree of Government No 134 of 2004. Decree No. 7/2004 of the Ministry of Informatics and Communications on the principles of calculating the net avoidable costs of universal electronic communications service and the method of establishing such costs.
Overall Fund Structure and Operation	Universal Electronic Communications Support Fund administered by the National Communications Authority (National Media and Info-communications Authority) and has a separate legal identity.
Contribution Type and Frequency	▪ Until April 2010, a Decree of the Minister. (Decree No 18 of 2004 of the Minister of Informatics and Communications) mandated service providers to submit audited reports and other data in order for the National Media and Info-communications Authority to calculate providers' contributions to the Fund and their compensation. ▪ After 2007, there were no contributions paid by service providers to the Fund. ▪ In 2010, a new funding system has been introduced: the State took the place of the contributing service providers.
Services Currently Authorized Under the Existing Framework	Universal service obligations include: ▪ Operation of one public pay phone per 1,000 inhabitants or in settlements

	with a population of less than 1,000; ▪ National directory enquiry services; ▪ Private connection to a telephone network at a designated place.
Fund Allocation Process	The Minister designates the universal service providers to ensure the coverage of the entire territory of the country with universal services, and the least distortion to competition, so that the universal service to be provided by the service provider able to do so the most efficiently and at the least net avoidable cost. Universal service providers (USPs) need to prove that they suffer an unfair burden and that they incur net avoidable costs related to the provision of universal services before they can receive compensation. The Minister decides whether the net avoidable costs claimed by the operators are legitimate and the NRA then decides on the amount of compensation due to the providers of universal services. After 2007, the operation of the Fund was aimed primarily at the settlement of legal disputes in progress. Compensations have been paid based on the judgments passed in these disputes only. Under the new 2010 system, the additional costs of the universal service providers are reimbursed based on the unit costs submitted by the service providers and approved by the NRA. Compensation is paid for the current year on a quarterly basis.
Governance	The Minister appoints the Director of the Fund as well as the members of its Oversight Board, and approves the Rules of Organisation and Operation of the Fund, the Rules of Operation of the Oversight Board, the annual budget and the annual report of the Fund, whom the Minister has the obligation to publish based on data supplied by the NRA. Finances and accounting of the fund are audited by the State Audit Office.
Level of Activity	**Low activity** **No financial reporting** From 2004 to 2007, USPs applied for compensation but their requests were refused, as net avoidable costs were not substantiated. In 2010, the State took the place of the contributing service providers.

6.5.5 Italy

Italy	Year Fund Established: 1993, 2003
Underlying Framework for Fund	The Universal Service Fund was established by the Decree of the President of the Republic no. 317/98 and by the Electronic Communications Code (ECC – Legislative Decree 259 of August 1, 2003). The details of calculation of the net cost of the provision of the US are contained in the EC Code (annex 11) and in the relevant decisions taken by the National Regulatory Authority, namely Decision no. 1/2008.
Overall Fund Structure and Operation	The fund is managed by Ministry of Communications. The Communications Regulatory Authority, AGCOM, controls the amount of the net cost of universal service and defines contributions to universal service supply.
Contribution Type and Frequency	Contribution of **1% of revenue** by all fixed and mobile operators (Telecom Italia, TIM, Sparkle, Vodafone and Wind) collected on an annual basis. Providers of value

	added services, data transmission services, Internet providers, providers of private networks and providers of services to closed user groups are excluded from contribution to the fund.
Services Currently Authorized Under the Existing Framework	Universal service obligations include: ▪ Access to a fixed location (unprofitable areas); ▪ Payphones (unprofitable payphones); ▪ Directories and information service; ▪ Free routing of emergency calls; ▪ Special provisions for disabled users; ▪ Special rates for low income users. Provision of a quality telephone service to everyone at an affordable price.
Fund Allocation Process	The Ministry for Economic Development is responsible for the allocation of funds. Operators submit amount of their net cost of the provision of USO (revenues foregone minus certain avoidable costs less the indirect benefits) on an annual basis.
Governance	Decisions subject to judicial review.
Level of Activity	**Low Activity** **No financial reporting.** Subject to legal delays. There has been a series long lasting litigation between Telecom Italia and the other contributors regarding the financing of the USF and all operators have appealed against decisions of AGCOM at the Administrative Court. This process is ongoing.

6.5.6 Poland

Poland	Year Fund Established: 2006
Underlying Framework for Fund	Telecommunications Act of 2004.
Overall Fund Structure and Operation	Universal Service Fund administered by the regulator, Office of Electronic Communications (UKE).
Contribution Type and Frequency	Levy not greater than **1% of operator's net annual revenues** for operators earning over EUR 2 million. The President of NRA determines, by means of an administrative decision, the amount of the subsidy, the telecommunications undertakings obliged to finance the subsidy and the proportion of their contribution to the subsidy (proportionally to the amount of this undertaking's revenue from telecommunications activities in a given calendar year). Telecommunications undertakings, which have revenue from telecommunications activities higher than PLN 4M (USD 1.2M) in the calendar year for which the universal service subsidy is due shall contribute to the subsidy.
Services Currently Authorized Under the Existing Framework	Universal service obligations between 2006 and 2011 included: ▪ Connection of single network termination point at a subscriber's main location (excluding ISDN); ▪ Maintaining the subscriber line with a network termination point; ▪ National and international calls including to mobile networks and the internet as well as fax and data transmission; ▪ Provision of directory enquiries and directories; ▪ Provision of facilities for the disabled; ▪ Provision of phone services via public pay phones

Fund Allocation Process	Funds are paid to operators who are required to meet universal service requirements. The subsidy is paid based on the net cost of service provision as specified by an ordinance of the Minister for Communications. A designated undertaking may submit a request for the subsidy within 6 months of the end of a calendar. The President of NRA, within 60 days of the request, shall verify the net cost and shall grant a specified amount of the subsidy or refuse to grant it in case it is established that the net cost is not a justified burden for the designated undertaking.
Governance	Certain decisions of UKE subject to judicial review.
Level of Activity	**Low activity** **No financial reporting** Subject to legal delays. Under the decisions of the President of UKE, Telekomunikacja Polska SA (TP) provided universal service in Poland between 8 May 8, 2006 - May 8, 2011. After May 8, 2011, TP is no longer obliged to provide universal service, pending the adoption of amendments to the Telecommunications Act proposed by the President of UKE. The Provincial Administrative Court refused compensation to TP in 2009 on procedural grounds. In 2011, the UKE reached the conclusion that the existing model of Universal Service provision is ineffective and recommended a new set of guidelines that have not yet been implemented.

6.5.7 Romania

Romania	Year Fund Established: USO funding mechanism in place since 2004
Underlying Framework for Fund	▪ Government Emergency Ordinance no. 79/2002 on the general regulatory framework for communications, approved, with amendments and completions, by Law no. 591/2002. ▪ Decision on the Implementation of Universal Service in the Field of Electronic Communications 1074/EN/2004 issued July 6, 2004. ▪ National Strategy on the Universal Service implementation in the electronic communications sector, approved by Order of MCSI no.461/2009. ▪ The decisions were replaced by Decision no.7/2011 on the Universal Service implementation in the electronic communications sector.
Overall Fund Structure and Operation	Universal Service Fund administered by the regulator National Authority for Management and Regulation in Communications of Romania (ANCOM).
Contribution Type and Frequency	**0.398% of annual revenue** from all providers of public electronic communications networks with revenue of at least EUR 3M (2006). The annual amount paid by each operator was not to exceed EUR 2M for 2005 and EUR 3M for 2006. In 2007 and 2008, the Romanian NRA, ANCOM, decided not to collect the contributions with the contributions re-initiated in 2009.
Services Currently Authorized Under the Existing Framework	Universal service obligations include: ▪ Provision of access to the public telephone network, at a fixed location; ▪ Directory enquiry services and making available of directories of subscribers; ▪ Access to public pay telephones. The fund finances the national tele-centres programme. The minimum duration

	for the functioning of the tele-centres is three years.
Fund Allocation Process	Universal service providers are designated for each village by a public tender procedure to install tele-centres with phone, fax and Internet services. The tender starts from a level of subsidy estimated as being sufficient to cover the net cost. Any provider of public electronic communications networks is allowed to bid, irrespective of the technology used. The provider submitting the lowest bid for a subsidy wins the tender. ANCOM makes a decision, upon request of the universal service provider concerned, to grant subsidies.
Governance	Decisions subject to judicial review.
Level of Activity	**Low Activity**. **No financial reporting** By the end of 2008, 633 tele-centres had been established. The resources of the Universal Service Fund have been allocated on the following basis: 45% of funds for financing tele-centres, 35% of funds for subsidizing low income families to enable access to the fixed network and 20% of funds for financing public phones and providing accessible directory services. Short term objective: increasing availability of community access to public telephone network at a fixed location. Since that time, activity levels have been low. **Long term objective**: countrywide availability of individual access to PTN at a fixed location. **Aim**: inclusion of broadband Internet connection in USO and 100% coverage by 2015.

6.5.8 Russian Federation

Russian Federation	Year Fund Established: 2006
Underlying Framework for Fund	2003 Law on Communication introduced rules relating to universal service. Universal service is also regulated by five Government Resolutions adopted in April 2005 on establishing the rules for: ▪ organizing universal network communication service provision; ▪ state regulation of tariffs for universal communication services; ▪ reimbursing the losses incurred by universal service providers; ▪ the tendering process for the right to provide universal services; ▪ accumulating and spending the resources of the universal service fund; Order on Cost Accounting covers costs related to the provision of universal communications services.
Overall Fund Structure and Operation	Universal Service Fund administered by the regulator, the Federal Communication Agency (FCA).
Contribution Type and Frequency	**1.2% of annual revenue** from all fixed and mobile operators (not including revenue from interconnection and routing).
Services Currently Authorized Under the Existing Framework	Universal Service includes: ▪ Telephone communication services, including the use of public phone booths; ▪ Data transfer services; and Internet access services through public access points; ▪ Initially, payphones in unserved regions. The procedure, tariffs and the commencement time for provision of universal

	services are determined by the Government based on a report from the RosSvyazNadzor considering: ▪ The time it takes for a user to access a phone booth, without using any means of transportation, should not exceed one hour; ▪ Each settlement should have at least one phone booth for free emergency services; ▪ All settlements with over five hundred people should have at least one public access point providing access to the Internet.
Fund Allocation Process	Funds distributed through competitive tender process conducted on a municipal or regional basis under the authority of the Ministry for Communications and Informatisation. The Fund reimburses the losses incurred by universal service providers. The prices charged for universal service are regulated.
Governance	The Government (greater governance detail is not provided at public level.
Level of Activity	**High Activity** **No financial reporting** The FCA expected 150,000 payphones and 20,000 public internet access points to be installed under the universal service programme by the end of 2009. Regional Svyazinvest companies were among the winners for telephony services. The Russian Postal Service has won a significant number of Public Internet Access Points (PIAP) tenders. Others were won by local and interregional ISPs. The outcomes of these tenders is not available to date.

6.6 The Americas

The Americas is the area with one of the longest histories with respect to the creation and existence of USFs. It has also demonstrated some ability to incorporate broadband deployment in the USF mandate. Furthermore, it is an area in which the governments themselves have funded USFs, some quite successfully. However, although there has been a reasonable effort in the area of connectivity of anchor institutions, the region has been less inclusive of persons with disabilities in USF mandate and allocation.

Of the 16 countries studied in this region, the funds are categorized as follows:

- High activity – 9
- Moderate activity – 1
- Low activity - 3
- Currently inactive – 3
- Allocation of funds for broadband is permitted - 7
- Addresses services for persons with disabilities – 4
- Addresses connectivity of anchor institutions - 8
- Addresses gender inclusion (women) – 0
- General provisions for tele-centres - 7

Eight of the 16 funds issued regular financial reporting, a higher ratio than all other areas studied.

It is **estimated** that as of the year end 2010/2011, the financial status of the USFs in the Americas included in this study was as follows:

- Total funds available **USD 14487.1B**
- Total funds disbursed **USD 8820.1B**
- Total funds remaining **USD 5667.074**

6.6.1 Argentina

Argentina	Year Fund Established: On 2000 the Fund was legally established but it did not become operative till 2009
Underlying Framework for Fund	Resolution 18.971: in July 1999, the Ministry of Communications approved the creation of the General Regulations of the Universal Service (RGSU), to govern the administrative, economic and legal body implementing the USF, which is aimed at promoting equal opportunity of access to telecommunications services to all inhabitants of Argentina. The 11th Article of the RGSU established the Consejo de Administración, whose President was appointed by the Ministry and had representation from all sectors involved in the provision of services. The law also established the way the Fondo Fiduciario del Servicio Universal will obtain its funds. Decree 558 of April 2008 introduced modifications to the RGSU: a) definition of Universal Services; b) management of the Fund; c) services subsidized by the Fund and d) programmes to be implemented.
Overall Fund Structure and Operation	A trust fund administered by SeCom (Secretaria de Comunicaciones)
Contribution Type and Frequency	**1% of all operators' gross revenues** – Argentinean operators can contribute either by paying 1% of revenues to the fund or by proving that they are installing service in underserved areas. However, for a number of reasons, including but not limited to, financial crises, changes of government and a general reluctance by some operators to participate, operators did not contribute to the Fund from 2001 through 2007.
Services Currently Authorized Under the Existing Framework	Until 2008, the objective of the fund was to provide basic services (long distance access in the many areas without it, public telephone access to everyone, programmes to help education, health (integration of disadvantaged population) and cultural developments. Since Decree 558/08, the focal point is to expand the telecommunications services to all underserviced areas.
Fund Allocation Process	Public open bidding process
Governance	Until 2008, Fund was directed by Administrative Board (Consejo de Administración) whose President was appointed by the Ministry of Economy. Under Decree 558/08, a new system was created with SeCom taking charge under the Ministry of Federal Planning, Public Investments and Services. The 10 SeCom members are selected by various levels of government, operators and consumers.
Level of Activity	**Low activity** **No financial reporting** Since the initial establishment of the Fund, only four projects has been announced and only one has been awarded. These include: ▪ Provision of wideband IP for homes in 397 remote towns (Res 88/2009) without telephone service. After two years of field survey analyses, selection of towns and bid paperwork, this project would appear to be reaching the bidder

[74] Funds in North America had close to 100% disbursement; the majority of the remaining funds is attributable to Brazil.

	selection phase. ▪ Project for Internet provision for 4,900 schools project. (Res.147/2010). Bidders offered their best price for the installation charge and a monthly fee to be paid by the Fund for five years in order to provide 3 Mbps Internet service to each school. Because of access problems, the programme was reduced to less than 4,200 schools and 80% of them (3,400) are already receiving service from the winning bidders. ▪ Service to 790 public libraries (Res. 148/2010). Bidders offered their best price for the installation charge and monthly fee to be paid during a five year period by the FFSU in order to provide a 3 Mbps Internet service to each library (originally envisaged at 1024 kbps). This is still not awarded. ▪ The Infrastructure and Equipment project (Res 9-2011) is also without any noticeable progress since 2010 when the three main cellular operators submitted their proposals. Each one offered to cover remote areas at USD 250,000 for each new base station near the community to be served.

6.6.2 Bolivia

Bolivia	Year Fund Established: Began in 1996, but changed completely when the new Constitution was approved in 2009
Underlying Framework for Fund	Telecommunication Law Nr. 1632 approved in July 1996 was replaced by Law Nr. 164 of August 2011, which followed the new constitutional precepts established in 2009.
Overall Fund Structure and Operation	PRONTIS (Programa Nacional de Telecomunicaciones de Inclusión Social) is the new programme developing the policies and procedures of universal access funds. The Unidad de Ejecución de Proyectos will manage the programme and will be created by a new regulation.
Contribution Type and Frequency	PRONTIS will receive **2% of all gross income** of operators and industry suppliers (telephone cooperatives, private companies, owners of private networks, and others) from January 2012 onwards. Other sources of USF funding are from licences, payment of penalties, frequency fees, etc. External aid and international cooperation are other sources of funding.
Services Currently Authorized Under the Existing Framework	PRONTIS will be used for investment projects in telecommunications (infrastructure and networks) and information and communication technologies; the development of content and applications intended for e-government, tele-education, tele-health and productive development for the achievement of universal access in rural and social interest areas.
Fund Allocation Process	Funds will be allocated by the Vice Minister of Telecommunications; who will sign contracts for telecommunications projects and ICT projects (social inclusion) with telecommunications companies with majority state participation. If these companies cannot implement such projects, the Vice Minister will conduct a public bidding process amongst incumbent operators in Bolivia.
Governance	PRONTIS is under the supervision and control of the Vice Minister of Telecommunications, a division of the Ministry of Public Work, Services and Housing.
Level of Activity	**Inactive.** **No financial reporting**

6.6.3 Brazil

Brazil	Year Fund Established: 2000
Underlying Framework for Fund	Telecommunications Law Nr. 9.472 on July 1997 opened the telecom market in Brazil. Universal Access obligations are defined by Presidential Decree 2.592 on May 1998, but it is Law Nr. 9.998 on August 2000 which established Fundo de Universalização do Serviço de Telecomunicações (FUST) and ANATEL as the Agency in charge of administering FUST. The agency is independent and financially autonomous, not hierarchically subordinate to any government agency, and its decisions can be contested only through the Justice system.
Overall Fund Structure and Operation	ANATEL is governed by a Board of Directors formed by 5 members selected by the President of Brazil and approved by the Federal Senate. The Board reaches all decision by majority. All members must be Brazilian citizens and possess a University formation, and being recognized as experts in the telecommunication sector. Members have a five years mandate, with sequential changes as to not lose the integrity and coherence of the Agency.
Contribution Type and Frequency	**1% of service providers' gross operational revenues** earned from the provision of telecom services.
Services Currently Authorized Under the Existing Framework	Fixed line services only. Efforts have been underway since 2010 to modify the legislation to permit deployment of broadband but, to date, this legislation has not been approved.
Fund Allocation Process	So far, FUST has collected a substantial amount of money but due to conflicting legal interpretations regarding the use of the fund's resources, very limited funds have been disbursed.
Governance	Ministry of Communications defines policy, direction and priorities of the Fund. ANATEL (Agência Nacional de Telecomunicações) implements projects and proposes programmes to the Ministry.
Level of Activity	**Inactive** **Financial reporting** Ongoing legal and political disputes regarding the purpose, structure and future use of the fund. Due to these constraints, the regulator has stimulated broadband deployment through licensing requirements and alternative programmes.

6.6.4 Canada

Canada	Year Fund Established: Policy established 2006; Launched 2010
Underlying Framework for Fund	In June 1992, the Canadian Radio and Telecommunications Commission (CRTC) issued Telecom Decision 92-12 which removed the federally regulated telephone companies' monopoly, as per the objectives of the Telecommunications Act introduced by the government earlier that year. In October 1999 CRTC issued Telecom Decision 99-16 regarding the provision of telephone service to high-cost serving areas[75]. In January 2001, the National Contribution Fund (NCF) was established.
Overall Fund Structure and Operation	Canadian Portable Contribution Consortium Inc. (CPCC) is a telecommunications industry consortium incorporated for the purpose of establishing and supervising

[75] Many of the high cost serving areas are in the Northwest Territories and Nunavut – home to many of Canada's indigenous peoples

	the mechanisms to implement the portable contribution regime established by CTRC. CCPC has designated Welch Fund Administration Services Inc. as the Administrator of the NCF until January 2015.
Contribution Type and Frequency	As per Decision 99-16, long distance service providers alone paid into the subsidy fund. In November 2000, CRTC issued Decision 2000-745 changing the way the subsidy was to be provided. The new **levy, initially set at 4.5% of net revenues of the previous year** for 2001, was reduced to 1.4% on an interim basis in 2002, and adjusted annually thereafter. At the present time, phone companies pay **0.84% of their revenues** to the National Contribution Fund.
Services Currently Authorized Under the Existing Framework	Decision 99-16 set three goals to be achieved: extend service to unserved areas; upgrade service levels in underserved areas; and ensure that existing levels of service do not erode under competition. CRTC identified a basic level of service that all Canadians should have access to and took steps to ensure that, over time this service would be available to all. Basic service includes: single line touch tone access, capability to access the internet at low speed without paying long distance charges; access to 911; voice relay services for the hearing impaired, directory assistance services; long distance services; and a copy of the local telephone directory.
Fund Allocation Process	N/A – compensation process.
Governance	CRTC is the Regulatory Agency with oversight but with the CPCC responsible for daily administration.
Level of Activity	**High Activity** **Financial reporting** Funds basically fully disbursed on an annual basis. The CRTC set a target for broadband Internet access services across Canada whereby it expects that by the end of 2015, all Canadians will have access to broadband speeds of at least 5 megabits per second (Mbps) for downloads and 1 Mbps for uploads. It also indicated that it expected this target would be reached through a combination of private investments, targeted government funding and public-private partnerships. Furthermore, the CRTC's view was that the launch of new satellites and advances in wireless technologies will make it possible to provide Canadians in rural and remote regions with reliable broadband connections at reasonable rates and higher speeds than those available today. Despite Canada's unique and often challenging geography, 95% of households currently have access to Internet download speeds of at least 1.5 Mbps through telephone, cable or fixed-wireless networks. Over 80% of households already have access to download speeds of 5 Mbps or higher.

6.6.5 Chile

Chile	Year Fund Established: 1982
Underlying Framework for Fund	Telecommunications Law Nr. 18.168 on October 1982 and subsequent modifications by Decrees in 1987 and 1994 established the Fondo de Desarrollo de las Telecomunicaciones (FDT).
Overall Fund Structure and Operation	The FDT is administered by a Council appointed by the President of the Republic. The Council decides on the annual programme, prioritizes projects eligible for

	subsidy, award the funds through competitive tender and publishes an annual report. Members of the Council: Minister of Transportation and Telecommunication, who presides over it; Minister of Economy or a delegate, Minister of Planning or delegate, and three professionals in the telecommunication area directly assigned by the President of the Republic.
Contribution Type and Frequency	Government's budget
Services Currently Authorized Under the Existing Framework	Original goal was to provide public telephone service to about 6,000 underserved localities. This target was achieved in 1999. Funds were then directed to support tele-centre projects, backbone broadband and mobile network expansion.
Fund Allocation Process	The subsidy provide by the Fund is paid out in two instalments, the first when the project is ready for service and the second one year later. In the meantime operators must finance the whole cost of their projects plus guarantees (2% or 3% of the overall value) out of their own resources
Governance	Fondo de Desarrollo de las Telecomunicaciones (FDT) with the Subsecretaria de Telecomunicaciones as the regulatory agency.
Level of Activity	**High Activity** **Financial reporting** In 2009, the fund began supporting rural broadband expansion, with a contract awarded to extend broadband to an additional 3 million rural residents. Another project was awarded to extend mobile services to underserved, remote areas. It also began supporting telecom services for schools, libraries and health centres. In 2010, Telefónica agreed with the Ministry of Education to provide connectivity to 7,000 schools. As Chile has more than 10,000 schools, the 3000+ schools remaining will be connected via FDT subsidies. Additional projects include: ▪ Broadband: ○ Improve covered households from 40% to 70% ○ 100 % of all schools connected at 10Mbps, with 98% to be completed by March 2012 ○ Increase from 10% to 22% of population connected to broadband ▪ Mobile Internet: ○ 3G mobile Internet to reach 1474 rural communities in the Magallanes Region

6.6.6 Colombia

Colombia	**Year Fund Established: First established on 1994 as Fondo de Telecomunicaciones. Replaced in 2009 by Fondo de las Tecnologías de la Información y las Comunicaciones - FTIC**
Underlying Framework for Fund	▪ Telecommunications Law Nr.72 on 1989 opened the market in Colombia. ▪ Law Nr. 142 established the Fondo de Comunicaciones (FCM) in 1994 with the specific goal of investing in social telephone programs in low income urban and rural areas ▪ Law Nr. 1342 in 2009 expanded the goals and established the governance of the Fund.
Overall Fund Structure and Operation	The fund is represented, managed and administered by the Minister of Communications, who is the Director of the fund. The General Secretary of the

	Ministry is also the Secretary of the Fund. The Treasurer at the Ministry is also Treasurer for the fund. The director can assign other members at his sole discretion.
Contribution Type and Frequency	All fixed and mobile operators contribute **5% of gross revenues** of national and international long distance and mobile services, and a percentage of net revenues from fixed telephone, VAS and trunking. However, there is a transition programme in effect to **reduce the levy to 2.2%.**
Services Currently Authorized Under the Existing Framework	First goals were related to access to services – telephony and internet – in rural areas. As per Law 1341, the funds are to be directed to support all programmes and projects allowing universal access to all information technologies and communications for all residents of the country.
Fund Allocation Process	Competitive bidding scheme for private operators, in which local entrepreneurs in each community will operate the tele-centres.
Governance	Law 1341 approved in 2009 created the Unidad Administrativa Especial, a legal entity directed to administered the FTIC under the direction of the Ministry of Communications.
Level of Activity	**High Activity** **Financial reporting** COMPARTEL[76] has overseen the development and completion of a broad range of projects including the following: ▪ Installation of 12,797 rural community telephony lines/access points using 9,745 sites situated in these rural locations thereby covering all municipalities, including low population areas, police headquarters and villages with more than 100 inhabitants that previously did not have any form of communications ▪ Provision of internet services through 1,440 tele-centres located in all cities and in locales with a population of more than 1,700 people. The programme also facilitates access to the internet via dial-up to 40 cities of more than 30,000 inhabitants who pay only the local telephone rates for the service. ▪ The internet programme includes a training component which focuses on basic introduction of: (1) the use of computers, faxes, scanners, web cameras, etc., (2) use of computer tools such as spreadsheets, word processors, etc., and (3) the use of e-mail and internet navigation. In addition, content generation is promoted. ▪ Based on population size and its needs, the tele-centres offer 2 to 12 computers with internet access and 2 to 12 telephone lines. Most centres also offer fax services, scanner, printers and web cameras. Additionally, 500 of these tele-centres have a training room with capacity for 20 people with a television, VHS, and a computer with internet access. ▪ 'computadoras para educar' – 'computers to educate' initiative in which there is one computer for every 15 students in the schools. The government target is to increase the number of computers to reach a ratio of one computer for every ten students. Major national connectivity project that encompasses four major elements: ▪ National Fibre-optic Project - PNFO

[76] This department has recently been renamed Direccion de connectividad

	○ Coverage for the 39M Colombians who belong to the three lowest socio-economic strata ○ Coverage for the SME's constituting 96% of all companies in the country ○ Quadruple number of internet connections ○ Triple number of connected municipalities ▪ Complementary High Speed Connectivity Project ○ To address some 44 communities totalling approximately 359,000 inhabitants that will not be covered by PNFO above ○ Free access to the internet in educational institutions and tele-centres for a three year period ▪ Puntos Vive Digital ○ 800 mega-centres serving the two lowest socio-economic strata; the centres will be dedicated to training individuals in the use and application of new technologies and connectivity to increase the development of telecommunications and information ▪ Community Access in Population Centres ○ Ensure that 100% of the DANE[77] population centres have a community access point by 2013

6.6.7 Dominican Republic

Dominican Republic	Year Fund Established: 1998
Underlying Framework for Fund	General Telecommunication Law Nr.153 in May 1998 created and independent, administratively decentralized regulator, Instituto Dominicano de las Telecomunicaciones (INDOTEL) which has the policy setting and regulatory responsibilities for the sector. The same law established the Fondo de Desarrollo de las Telecomunicaciones
Overall Fund Structure and Operation	Independent unit created by the Telecommunications law and subsequently regulated.
Contribution Type and Frequency	Each operator of public telecommunication services contributes **2% of its gross income**. 40% of the fund is used to finance regulatory activities of INDOTEL and 60% to finance development projects which are eligible for funding.
Services Currently Authorized Under the Existing Framework	Objectives of the Fund: ▪ Provide access to broadband services for all Dominicans ▪ Achieve an internet penetration of 40% of the population ▪ Achieve a penetration rate of personal computer users of at least 50% of the population ▪ Rural Broadband Connectivity Project
Fund Allocation Process	There is a two year planning cycle for UAF financed projects. Once projects are approved by INDOTEL, the execution can begin, the first step being the elaboration of a bidding document, explaining the purpose, objectives and characteristics, as well as its technical specifications and terms of reference of the bidding process. Subsidies are paid 20% at contract signing, 40% on completion of installations and 40% in six month instalments over a period of five years.

[77] El Departamento Administrativo Nacional de Estadística (National Administrative Department of Statistics) is the entity responsible for the planning, collection, processing, analysis, and dissemination of Colombia's official statistics

Governance	Fondo de Desarrollo de las Telecomunicaciones (FDT) with INDOTEL as the regulatory agency. INDOTEL is headed by a five member Executive Council appointed every four years by the Executive Branch of the government; The President of the Executive Council has the rank of Secretary of State.
Level of Activity	**High Activity** **No financial reporting** ▪ In 2007, there were 357 CAC (Community Tele-centres) operating in all 31 provinces and the national district. These centres give access preference to students, teachers and professionals - and the rest were open to all. ▪ In 2008, 635 CACs were added and another 135 by the end of 2010. Each of these centres allows access to an average of 10 PCs, depending on the area in which they are located, and based on the number of inhabitants served. ▪ The Digital Libraries programme installs computers with internet access and other media resources which include digital education content, in public school and high school libraries in the underserved areas of the country with a total of 109 virtual libraries having been selected and implemented. ▪ FDT has also expanded this project to include the provision of broadband to the schools involved. This upgrade will be tested as a pilot project in 100 schools and depending on the results, INDOTEL plans to expand the service to other schools. ▪ For the period 2009 – 2011, FDT engaged in the second phase of broadband provision to improve rural connectivity as well as in providing services to the hearing impaired. In 2007, only 56 communities had access to broadband services whereas by September 2011, INDOTEL reported more than 500 communities as having received broadband access.

6.6.8 Ecuador

Ecuador	Year Fund Established: 2001
Underlying Framework for Fund	Special Telecommunications Law Nr. 2000-4 and Executive Decree Nr.1790 on August 2001 fully liberalized the market and placed universal access obligations on fixed lines and mobile operators for all operators through Fondo para el Desarrollo de las Telecomunicaciones en Areas Rurales y Urbanos Marginales (FODETEL).
Overall Fund Structure and Operation	The Board of Directors of FODETEL is formed by the President of CONATEL, who presides over the Board, the Secretary of the Ministry of Telecommunications, and the Director of Planning of the Presidency of the Republic.
Contribution Type and Frequency	**1% operator levy** on fixed line operators. Funds can also be provided by the Ministry of Telecommunications and the Ministry of Finance. Also, the Fund may receive from time to time allocations from the government for projects considered top priorities.
Services Currently Authorized Under the Existing Framework	The projects focus on the creation of community tele-centre and educational centres. The newest priority is internet infrastructure and systems.
Fund Allocation Process	Disbursement of the funds will be considered as part of the agreement signed by the selected bidder and depending of the project and total value of the service/equipment required.
Governance	Ministry of Telecommunications through Dirección de Acceso Universal
Level of Activity	**Moderate activity**

	No financial reporting All projects are part of the National Investment Plan of the government (PIA) and of the Annual Operative Plan (POA), and they are geared to the provision of internet connection to schools. The goal is to achieve 100% connectivity in urban schools, and 50% in rural schools.

Guatemala

Guatemala	Year Fund Established: 1996
Underlying Framework for Fund	General Telecommunications Law in 1996 opened the market and established the guidelines for the establishment of Fondo para el Desarrollo de la Telefonía (FONDETEL)
Overall Fund Structure and Operation	FONDETEL Guatemala was created as an autonomous agency by the General Telecommunications Law and the Ministerial Decree 214 on 1998.
Contribution Type and Frequency	Transfers from government and 70% of the amount collected through spectrum auctions plus World Bank funding.
Services Currently Authorized Under the Existing Framework	Funds to finance telephony projects awarded through auction were the main goal until 2006, but presently it has moved towards the development of community internet access
Fund Allocation Process	Funds are given to winning bidder when the work has been completed for capital projects and biannually for operational type projects.
Governance	Ministry of Communications operating through the Consejo de Administración, formed by four members, two selected by the President of Guatemala and the other two by the Ministry of Communications, from among a group of public employees working in the Telecommunications Sector.
Level of Activity	**Low activity** **No financial reporting**

6.6.9 Jamaica

Jamaica	Year Fund Established: 2005
Underlying Framework for Fund	Main framework was established by the Telecommunication Act of 2000 which included the provision of universal service obligations (USOs) on telecommunication provider companies while liberalizing the telecommunications market and establishing the basis for a Universal Service Fund. The Fund was established by Ministerial Order on April 19, 2005 and Cabinet Decision Nr. 18/05 on May 16, 2005 mandate a universal access levy to be imposed on incoming international calls. The Fund began operations on June 1, 2005.
Overall Fund Structure and Operation	The Office of Utilities Regulation (OUR) is the regulatory body, and is in charge of advising the Minister in charge of Telecommunications about the mechanism to achieve universal access and possible ICTs areas to be included by the Fund.
Contribution Type and Frequency	Mainly external carriers pay **USD 0.02 per minute for calls terminating on mobile** phones and **USD 0.03 per minute to fixed-line phones**.
Services Currently Authorized Under the Existing Framework	Funds collected through the USO levy are not only to provide universal access to telephones throughout the island providing this service to all Jamaicans at a reasonable price, but are used to finance a national e-learning project, called e-Learning Jamaica. The project involves the utilisation of state of the art ICTs in Jamaican schools (primary, secondary and tertiary level) in order to improve the overall quality of education. In addition, the ICT policy gives the fund the power to support programmes benefitting vulnerable groups, including the elderly, youth and persons with disabilities
Fund Allocation Process	Competitive bidding process.
Governance	The Universal Access Fund Company Limited (UAF) is a subsidiary of Spectrum Management Authority (SMA) created to administer the day to day operations of

	the Fund; collection and management of the universal service levy and the disbursing of the funds collected in a transparent and non-discriminatory manner.
Level of Activity	**High activity** **Financial reporting** As reported by the CEO in March 2013, the UAF is providing the following services: ▪ Island-wide Broadband network (112 Schools, 34 Libraries and 57 Post Offices connected) ▪ 58 additional Community Internet Centres ▪ 118 Community Internet Centres being evaluated with 40 more slated for installation by YE2013 ▪ Upgrading of 7 additional Open University Campuses ▪ Computers and audio-visual equipment to six schools for the deaf ▪ Deploying campus-wide WiFi at one main University Campus. ▪ Upgrading of the Caribbean Maritime Institute. ▪ New projects regarding the e-learning mandate plus provision of broadband connectivity for hospitals and health centres island wide.

6.6.10 Mexico

Mexico	Year Fund Established: 2002
Underlying Framework for Fund	Federal Telecommunications Law in 1995 created the Fondo de Cobertura Social de Telecomunicaciones (FCST) as a temporary Fund. Although the possibility of creating a fund for universal service in telecommunications is contained in Article 50 of the Federal Telecommunications Act (1994), it was not until 2002 that FCST was created by the Federal Budget Decree on 2002 (Transitory Article 19). This Decree is issued by the legislative branch and states the federal budget for this year.
Overall Fund Structure and Operation	FCST (Fondo de cobertura social) is a trust fund which receives funds from the national budget. So far, the only funding that FCST has received is from the Federal Government, although the two trust agreements that are referred to list the possibility of receiving funds from private sources.
Contribution Type and Frequency	Government's budget allocation
Services Currently Authorized Under the Existing Framework	Programmes to be funded: rural area telephone services, digital community centres (CCDs) as per needs referred by all levels of government units and public foundations. FCST can provide telephone and Internet to rural or underserved areas. There is another project of the Mexican Federal Government made directly through the Ministry of Communications and Transportation was called "e-Mexico" and now "Unit for Information and Knowledge Society" the Digital Community Centres dependent on this.
Fund Allocation Process	Funds are awarded via public tender. The last two projects awarded in 2007 to Telmex are still unfinished. Unfortunately, the lack of both political will and new programmes has resulted in a lack of activity by the Mexican authorities.
Governance	The FCST is managed by a technical committee through the Secretary of Transport and Communications. The Technical Committee is formed by 3 members of the Ministry of Transportation and Communications and two members selected from the operators in the telecom market.

	The Technical Committee of the FCST consists of representatives of 6 Secretaries of State (SCT, SHCP, SE, SEDESOL, SEP and SSA), chaired by the Secretary of Communications and Transport SCT and with the participation of two representatives owners and their respective alternates, Private Sector Telecommunications "proposed unanimously by all the chambers and industry associations." To date the two private sector representatives are appointed by the National Chamber of Industry of Information Technologies by other associations like the Chamber of Industry of Radio and Television and National Association of Telecommunications.
Level of Activity	**Inactive** **No financial reporting** There is some recent discussion of an SCT programme set up to subsidize up to a one thousand pesos (around USD 70) purchase of computers. However, there is no information at this time on the origin of the funds for this grant.

6.6.11 Nicaragua

Nicaragua	Year Fund Established: 2003
Underlying Framework for Fund	Executive Decree 84-2003 on March 2003 established Fondo de Inversion de Telecomunicaciones (FITEL) The FITEL was re-established, this time under the umbrella of TELCOR by Executive Decree Nr.5 on January 2006.
Overall Fund Structure and Operation	FITEL is a financial mechanism embedded in TELCOR to help to expand and better the telecommunication system in Nicaragua, making is accessible to all.
Contribution Type and Frequency	**2% operator levy**.
Services Currently Authorized Under the Existing Framework	Public telephones in rural areas. Internet access for public schools.
Fund Allocation Process	Funds are awarded through public tender.
Governance	TELCOR - Instituto Nicaragüense de Telecomunicaciones y Correos - is the regulatory agency responsible for fund oversight.
Level of Activity	**Low activity** **No financial reporting** The first FITEL project in 2005 was the extension of public telephony and mobile services to the rural sector to 30 municipal districts in the Central and Pacific zones. In addition, the project included the installation of a minimum of one public telephone to almost 350 communities with more than 400 inhabitants thereby tripling the number of communities with access to service. Since then, activity has been sporadic.

6.6.12 Paraguay

Paraguay	Year Fund Established: 1998
Underlying Framework for Fund	Telecommunications Law Nr. 642 from December 1995 established CONATEL, the legal entity in charge of all telecom projects and programmes in Paraguay.
Overall Fund Structure and Operation	The universal access fund is managed by CONATEL.

Contribution Type and Frequency	**20% of operators' corporate taxes.**
Services Currently Authorized Under the Existing Framework	Projects supported include payphones, internet access for schools and nation-wide 911 emergency calling systems. The government launched the National Telecommunications Plan (PNT) for the period 2010-2015. Through PNT, CONATEL aims to reach 50% of homes with broadband by 2015 and deploy 1,000 km of urban fibre optic cable per year.
Fund Allocation Process	Public bidding. First part of the subsidy is paid within 30 days of signing the contract with the Fund. The rest is paid once it has been confirmed by the Fund administrator, CONATEL, that all installations are operating and services are being provided.
Governance	The universal access fund is managed by CONATEL
Level of Activity	**High Activity** **Financial reporting** Plan "Paraguay Conectado" is being supported by the fund at this time. From Mar 2009 until Aug 2013, operators will provide access to telephone services and internet to all municipalities in the country. Conatel has granted mobile operator Tigo the licence for universal service provision. Tigo will receive subsidies of PYG 5B from the USF to deploy mobile telephony lines in areas currently not covered by the network of Paraguay's state-owned operator incumbent Copaco. Over the next 6 months, Tigo will have to deploy mobile phone lines in the department of San Pedro. Overall subsidies for this area are PYG 1.15B. Additionally, subsidies for the department of Concepcion exceed PYG 2.3B, while the Amambay region has been allocated PYG 1.12B and the Canindeyu area will receive up to PYG 377M in universal subsidies.

6.6.13 Peru

Peru	Year Fund Established: 1993
Underlying Framework for Fund	Telecommunications Law of 1993 and subsequent Decrees and Regulations from 1998, 1999, 2002 and 2004 opened the market, set the rules for all operators and established the Fondo de Inversion de Telecomunicaciones (FITEL).
Overall Fund Structure and Operation	Since 2007, FITEL Peru is an independent agency, managing its own funds. FITEL is defined as a Technical Secretary and is formed by the Technical Secretary appointed by the Council of Ministries and a group of six professional appointed by the Ministry of Transportation and Communications.
Contribution Type and Frequency	**1% of all telecom and CATV operators' gross revenues**; percentage of all amounts collected by the Ministry for usage of the radio electric spectrum of the telecommunication public services and will be determined every fiscal year by the Ministry, but may never be less than 20%; funds given to FITEL through the federal budget and all amounts FITEL itself can generate as a result of its functions.
Services Currently Authorized Under the Existing Framework	Funds are allocated towards services as telephone, fax and data, and free emergency calls in priority locations as determined by the government: ▪ rural towns with more than 400 inhabitants; ▪ district capitals; and ▪ towns in high social interest areas

<table>
<tr><td>Fund Allocation Process</td><td>After MTC approval, FITEL allocates funds in three ways:
Public bidding;
Auction by invitation;
Direct award.
The payout scheme depends on the particular project and contract. Generally subsidies are paid out over a 4-5 year period for projects costing more than USD 1M. For lesser amounts. the payout is agreed in the contract signed with the Fund.</td></tr>
<tr><td>Governance</td><td>Organismo Supervisor de Inversión Privada en Telecomunicaciones was the regulatory agency till Law 28900 in 2007 transformed FITEL into an independent legal entity under the supervision of the Ministry of Transportation and Communications.</td></tr>
<tr><td>Level of Activity</td><td>High Activity
Financial reporting

In Latin America, FITEL was the first successful example of a USF administration adopting innovative approaches, now widely respected, to achieve access in rural areas i.e., lowest-subsidy and technology neutral auctions. FITEL’s pioneering programmes resulted in a number of social benefits and activities that have since been expanded from public telephony to include broadband internet access and many of these concepts have been used as models in other jurisdictions.
Project examples are as follows:
3 lowest-subsidy auctions resulted in the first public telephone coverage to 6500 rural localities[78] that had previously not been connected to the telephone network. In the served areas, these projects reduced tenfold the average distance to reach a payphone which, before the FITEL programme, ranged from 25 to 90 km. After, the average distance was less than 5 km.
In 2001, FITEL initiated projects to provide Internet services: the first, using VSAT to cover district capitals at an average cost of USD 16,800 per town.
Projects became more ambitious regarding the number of locales and the requirement that tele-centres must be installed to provide effective use of the internet access. The projects for expanding internet access included an additional allocation of resources (training subsidy) for teaching multimedia usage to local residents, creating local content and fostering the development of micro enterprises responsible for the management and operation of the tele-centres.
After 2004, all Internet service projects included broadband and a training subsidy.
The following table shows the number of towns served by each of the 11 FITEL programmes from 1998 to 2011 for rural town coverage.
<table>
<tr><th>Programme</th><th>I</th><th>II</th><th>III</th><th>IV</th><th>V</th><th>VI</th><th>VII</th><th>VIII – XI</th></tr>
<tr><td>Year</td><td>1998</td><td>2000</td><td>2002</td><td>2005</td><td>2007</td><td>2009</td><td>2010</td><td>2011</td></tr>
<tr><td>Towns</td><td>213</td><td>2231</td><td>2526</td><td>1616</td><td>68</td><td>1050</td><td>3878</td><td>5681</td></tr>
</table></td></tr>
</table>

[78] The goal of the Guidelines of Decree SD020-98-TCC was 5000 rural villages.

6.6.14 United States of America

United States of America	Year Fund Established: 1997
Underlying Framework for Fund	In 1996, US Congress passed the Telecommunications Act, which mandated the creation of a Universal Service Fund. On 1997, the United States Federal Communications Commission (FCC) created the Universal Service Fund (USF).
Overall Fund Structure and Operation	The Universal Service Administrative Company (USAC) has a 19 member Board of Directors representing the different interest groups affected and interested in universal services (e.g., regulatory and business sectors). Members are nominated by their respective interest group and approved by the Chairman of the FCC. Also has an Executive Team which manages the day to day operations, formed by experienced professionals with expertise in business, administration, accounting, and legal matters. USAC functions and responsibilities include: ▪ Administration of each of the programmes; ▪ Billing contributors, collecting and disbursing universal service support; ▪ Reporting quarterly to the FCC on disbursements.
Contribution Type and Frequency	All companies providing interstate and international telephone and VoIP services must contribute to the USF. Contributions are based on projected quarterly earnings, reported to USAC. **Exemption:** a company where reported revenues are such that the calculated contribution to the USF is less than USD 10,000
Services Currently Authorized Under the Existing Framework	As mandated by the Telecom Act: promote the availability of services at affordable rates. Increase access to advanced telecom services. To make services accessible to all, including those in low income, rural, insular and high cost areas at a rate comparable to those charged in urban areas. **1. The Universal Service High-Cost programme:** This programme is designed to ensure that consumers in rural, insular and high-cost areas have access to telecommunications services at rates that are affordable and reasonably comparable to those in urban areas. The programme fulfills this universal service goal by allowing eligible carriers who serve these areas to recover some of their capital and operating costs from the federal Universal Service Fund. **2. Lifeline:** This programme provides a discount on phone service for qualifying low-income consumers. Lifeline is available to eligible low-income consumers in every state, territory, commonwealth and on tribal lands. Consumers with proper proof of eligibility may be qualified to enroll. To participate in the programme, consumers must have an income that is at or below 135% of the federal Poverty Guidelines or must participate in a qualifying state, federal or tribal assistance programme. **3. The Schools and Libraries** Universal Service: This programme provides affordable telecommunications services, including broadband, to all eligible schools and libraries, especially those in rural and economically disadvantaged areas. Funding is subject to a cap that is adjusted annually to account for inflation. **4. Rural Health Care Programme**: This provides funding to eligible health care

	providers for telecommunications services, including broadband, that are necessary for the provision of health care. The goal of the programme is to improve the quality of health care available to patients in rural communities by ensuring that eligible health care providers have access to affordable telecommunications services. It provides discounts on the purchase of telecommunications services by eligible rural health care providers. These discounts result in rates for service that are nearly the same as those in urban areas, where telecommunications rates typically are lower. To provide broadband networks in rural areas where service is lacking, the Commission launched the Rural Health Care Pilot Programme, which provides funding for up to 85 per cent of the costs associated with: (1) the construction of a state or regional broadband network and the advanced telecommunications and information services provided over that network; (2) connection to Internet 2 or National LambdaRail (NLR); and (3) connection to the public Internet.[79]
Fund Allocation Process	USF funds the High Cost, Lifeline, Rural Health Care and Schools and Libraries Programmes. Entities eligible for support from these programmes submit information to USAC for processing and evaluation, leading to disbursement of support to those approved for funding.
Governance	FCC designated the Universal Service Administrative Company (USAC) to manage the contribution of revenues and the distribution of funds from the USF. FCC is the regulatory agency.
Level of Activity	**High Activity** **Financial reporting** Disbursements were made to all Fund programmes. On October 27, 2011, after lengthy public consultations and deliberations, the FCC approved a six-year process that would transition money from the legacy Universal Service Fund High-Cost Programme to a new USD 4.5B a year **Connect America Fund** for the expansion of fixed and mobile broadband-capable networks ("voice telephony" remains the supported service, but recipients of support must deploy networks that can deliver voice and broadband service meeting minimum requirements established by the FCC). As regards specific provisions for persons with disabilities, regulations and conditions vary from state to state. Discounts for persons with disabilities on basic telephony services are available in Missouri, Virginia, Colorado, Illinois, Texas, Pennsylvania, and Vermont. Specific provisions are also made for disabled end users in the following states: For example: **Wisconsin**: 1) Telecommunications Equipment Purchase Programme allows person with disabilities to purchase

[79] References for section above: Federal Communications Commission. "Universal Service Fund Contribution Factor & Quarterly Filings"; "Connect America Fund & Intercarrier Compensation Reform Order and FNPRM Executive Summary". Federal Communications Commission; Aufderheide, P., & United States. (1999). Communications policy and the public interest. New York: Guilford Press; Jayakar, K. (2009). Universal Service. In Schejter, A. (2009); And communications for all: A policy agenda for a new administration. Lanham, MD: Lexington Books; Universal Service Administrative Company. Federal Universal Service Support Mechanisms Quarterly Contribution Base for the First Quarter 2009.

	assistive devices to use telephone services through vouchers. 2) Access programme is a grant programme to enable affordable access to telecommunications and information services to low income users or users with disabilities. 3) Technology for Educational Achievement Program subsidizes fully or partially costs of providing telecommunications to eligible schools, libraries and educational institutions. **California**: 1) California Telephone Access Programme provides telecommunications assistive technologies and devices for persons with disabilities. 2) California Relay Service provides trained operators to facilitate relay services for persons with speech or hearing disabilities.

6.6.15 Venezuela

Venezuela	Year Fund Established: 2000
Underlying Framework for Fund	Telecommunication Law Nr. 36.970 on July 2000 established CONATEL which is mandated to establish the Fondo de Servicio Universal (FSU).
Overall Fund Structure and Operation	FSU is a dependent Unit with assets separate from CONATEL.
Contribution Type and Frequency	**1% levy on all operators' revenues**.
Services Currently Authorized Under the Existing Framework	Installation of tele-centres and connecting agricultural estates and government offices
Fund Allocation Process	Public bidding is the main method of granting subsidies. The Fund operator defines the payout schedule as part of its bid offer.
Governance	A Board consisting of the head of the telecom regulator, representatives from three ministries and a representative of contributing operators.
Level of Activity	**High Activity** **No financial reporting** In 2010, the FSU spent Bs. 293.6M (approx. USD 68.2M to cover the following projects: TELCEL, expansion of Broadband, extension of internet access in rural areas, and other expenses for furnishing and equipment for tele-centres in rural areas.

7. ALTERNATIVE SOLUTIONS TO ACHIEVING BROADBAND UNIVERSAL COVERAGE

7.1 Overview

There is a widespread recognition amongst governments and indeed, many other stakeholders, that access to high speed broadband contributes to economic growth and international competitiveness. In many countries, the transition from copper to fibre networks has proven to be slow or the fibre covers only densely populated areas, mainly due to the heavy investments involved. This results in a situation in which people in rural and remote areas frequently do not have access to reliable, high speed broadband at an affordable price. A growing number of governments want to ensure that the majority of the population has access to high speed broadband at reasonable rates and this is reflected in a greatly increased and ever multiplying number of national broadband plans and in the frequently expressed desire to include broadband deployment (both fixed and mobile) in the USF funding mechanism. However, existing conditions in many countries do not always facilitate widespread broadband deployment, whether fixed or mobile, and the current structure of many USFs does not permit the desired broadband deployment. Therefore, to assist in such deployment, there have been a number of approaches to increase fibre based and wireless based broadband penetration, especially when there

is no USF or where the current USF is not geared for broadband and cannot accommodate it without major structural changes to the USF framework. In addition, the current economic situation in many countries has reinforced the need for broadband to be used to help stimulate the economy. Therefore, it is not uncommon to see an increase in direct government intervention and investment in fibre roll-out. The degree of government intervention is driven by:

- the priority attributed to broadband as a contributor to economic growth and a driver of international competitiveness
- perceived (in)ability of incumbent operator to efficiently deliver fibre investments in a pro-competitive manner
- regulatory philosophy and views regarding the optimal market structure needed to deliver fibre investment and competition
- the desire to create a stimulus effect through substantial new investment

In situations where direct government intervention is either not possible or is not the preferred option, there is a growing interest in PPPs (Public Private Partnerships) and other structures or partnerships as an alternate approach. A few select examples of some of the different, alternative broadband approaches are addressed below.

7.2 European Union (EU)

In Europe, most fibre network operators are regulated to some degree. Direct financial intervention by governments is allowed only if there is persistent market failure and in many EU countries, there has been a move away from USFs because basic universal coverage is close to being or has been achieved. Government investment (i.e., state aid) may be applied only in unprofitable areas ("white spots") that would otherwise remain unserved in the medium term. With fibre substituting copper, it has been increasingly important both for the European Commission as well as the different national regulators to find a suitable solution regarding how to regulate new fibre networks in order to keep competition alive while at the same time providing incentives for investment, especially in the absence of a USF. The previously used "ladder of investment"[80] has been amended to address new technology. There is basically a two funding model approach depending on the circumstances[81].

Model 1 – Private Sector Investment	Model 2 – Public Private Partnership
European approach in which the operators build (with support for areas where competition does not reach)	Government invests in NGA roll-out in regions where competition does not reach
The objective of the regulation is: ▪ Provide certainty to investors ▪ Apply the principles of open access to bottleneck facilities	Tender process to select private sector partner(s)
Remedies are imposed by EC regulators	Contract terms stipulate access terms and conditions for other parties
EC recommendation on NGA (Next Generation Access)	Functional separation can be imposed

[80] Regulatory approach proposed by Martin Cave (2006), which has been widely adopted by national regulatory authorities in the EU telecommunications sector. The approach entails providing entrants, successively, with different levels of access -the "rungs" of the investment ladder, while inducing them to climb the ladder by setting an access charge that increases over time or by withdrawing access obligations after some pre-determined date (i.e., by setting sunset clauses).

[81] M. Grape: Qtel Group March 2013

7.3 Oman

The provision of universal service is enshrined in the Telecommunications Regulatory Act issued by Royal Decree No. 30/2002. In accordance with Article 38 of the Act, the Minister of Transport and Communications is required to consult with the Council of Ministers in order to:

1. Expand the telecommunications services and networks in defined areas according to their geographical location, or number of inhabitants; and to establish public telecommunications centres including the installation of public payphones in these areas
2. Specify the basic public telecommunications services which the licensee is obliged to provide to any requesting beneficiary at a reasonable price as decided by the Authority in the service areas
3. Provide maritime telecommunications services
4. Provide telecommunications services to persons with special needs

Based on a public consultation conducted with all stakeholders, the TRA issued an implementation policy in 2009[82] in which it defined what constituted universal service and the markets/population elements to be covered in unserved and under-served areas. This policy was viewed as being a reflection of the Digital Oman strategy and within that policy, it stated that: '*Broadband services were to be provided to institutions (for schools, hospitals, Wali offices, government offices, post offices and police) in a phased approach, by region or area'*.

On June 9, 2012, the Ministry of Transport and Communications announced plans to increase the Internet broadband access service (National Broadband Plan) over the next five years to cover more than 60 percent of the Omani population at affordable prices as part of Oman's 2020 Vision for economic and social development. The Ministry's plan is to provide government departments, universities, industrial estates and commercial complexes with a broadband download speed of 1GB/second, while 80 per cent of urban areas will get speeds of between 20MB/sec to 100MB/sec. Other areas are slated to receive between 5MB/sec and 20MB/sec download speeds, while the target for remote areas is to deliver Internet access speeds of 3MB/sec to 5MB/sec.

The scheme is still in the planning stages. It remains to be seen whether the government will move forward with this initiative but the expectation is that parts or all of the strategy will be implemented in the near future.

7.4 Japan

Created in 2006, the Universal Service Obligation Fund (USOF) in Japan was a compensation fund used to cover deficits from the provision of universal service. Eligible telecommunications carriers, namely NTT East and NTT West (local) were entitled to use the fund. Telecom service providers that interconnected with the eligible telecom carriers and that earned over 1B JPY (Japanese Yen) were required to contribute to the USOF. The USOF contributions were calculated based on the number of telephone numbers that interconnected with the eligible carriers and this was multiplied by 8JPY per interconnecting number. However, the Fund could support only fixed subscriber lines, emergency calling and payphones.

Following the establishment of the USOF, in 2010, the government adopted the 'Hakari no Michi'[83] New Broadband Super Highway vision and policy as regards the state of broadband development by year end 2015:

[82] Universal Policy and its Implementation Strategy – June 2009

[83] Speedway as fast as the light

- All households shall have broadband
- 90% of all households shall have Ultra High Speed Broadband (UHS BB) i.e., more than 30Mbps for the downlink

However, it was determined that overall market conditions might not be optimal for the stimulation of broadband deployment and, based on the then mandate of the USOF, compensation could not be paid for broadband deployment. At the same time, many fibre based networks were being built by local governments and then subsequently operated and used by telecom operators under the "indefeasible right of use (IRU) scheme". Therefore, the Japanese government undertook a study to address the best means for achieving the broadband targets in which it examined regulatory and related policy changes required to spur the broadband deployment.

Based on this review, the government determined that high speed broadband needed to be classified as a universal service requirement and that the scope of the USOF should be extended to incorporate this. It also determined that although the construction of the facilities needed to deploy high speed broadband should be primarily a private sector initiative, in areas where there were no facilities, local government funding support should be provided as follows:

- The national government provides financial support for local governments constructing broadband networks
- The grant programme covers one third of the total construction costs
- Local governments make these broadband networks available to the private sector by means of the IRU scheme, and the private sector then provides broadband access services to users

Based on this innovative PPP approach, by March 2012, 97.3% of Japanese households had access to Ultra High Speed Broadband and 100% of Japanese households had access to regular Broadband.

8. CONCLUSIONS AND STRATEGIC RECOMMENDATIONS

As examined in the preceding sections, there are many laudable objectives associated with USFs and many governments have made all efforts not only to create suitable USFs that respond to the needs of rural and other target population sectors, but to subsequently administer these funds. Nonetheless, many funds face numerous challenges and pitfalls that need to be overcome to ensure that society as a whole can benefit from these funds today and in the future. Although a number of success factors have been explored and many detailed recommendations have been presented, the following is a set of general conclusions that set the stage for the strategic recommendations designed to serve as takeaways from this report.

8.1 Conclusions

- It is necessary to arrive at a strategically balanced combination of innovation, flexibility, autonomy and solid governance in order for a USF to be successful.
- In order to 'future proof' USFs to the greatest practical extent, the underlying legal and regulatory frameworks must be structured so as to ensure that policies and parameters can be modified quickly and effectively to accommodate the need for a new USF vision and respond to rapidly changing and evolving priorities.
- It is critical that USFs move as quickly as possible towards increased transparency and accountability so as to demonstrate the often hereto unreported accomplishments that have been achieved; this will improve buy-in and commitment from stakeholders across the board.
- In situations where funds are struggling or where the existing framework is in need of modification or enhancement, initiate a public consultation process and make concrete use of the feedback that will be provided to effect change.

- Ensure that in general, the critical need for a much greater emphasis on and detailed attention to digital inclusion is globally accepted and implemented.
- In cases where USF constraints currently exist, pro-actively seek interim and creative work-around solutions that can be applied until such time as philosophical and structural changes can be made to the USF.
- Consider models to further expand the scope and reach of the USF whether that be PPPs, supplementary direct government funding, contributions in kind (e.g., access to national, regional or local infrastructure, rights of way, etc.).
- In cases where the collected levies for the USFS have not yet been disbursed, prepare disbursement plans to make use of the funds as fairly and transparently as possible.
- In cases where the fund is currently constrained by the existing legal and regulatory framework, initiate the steps required to set the necessary changes in motion.

8.2 Strategic Recommendations

By following these strategic recommendations, many USFs will be actively participating in achieving greater effectiveness and recognition.

1. **RECOMMENDATION 1: Planning for the Future**

In order to 'future proof' USFs to the greatest practical extent, the underlying legal and regulatory frameworks needs to be structured so as to ensure that policies and parameters can be modified quickly and effectively to accommodate the need for a new USF vision and respond to rapidly changing and evolving priorities. It is essential for regulators and policy makers to be able to change the scope and/or direction of the USF legal or regulatory framework. In order to achieve this, it is recommended that the legal and regulatory framework not only be technology neutral but also flexible enough to carry out any needed changes or improvements. Where the fund is constrained by the existing legal and regulatory framework, it is essential to initiate the steps to effect the necessary changes.

2. **RECOMMENDATION 2: Well-articulated policy and vision**

In order to respond effectively to the evolving vision and requirements of the Government and society, and taking into account that technology and services evolve at such rapid pace, it is highly recommended that there is a clear and precise articulation regarding the policies and strategies of USFs and the digital agenda of the Government. A periodic review and adjustment of the overall USF vision, policy and administrative mechanisms needs to be put in place.

3. **RECOMMENDATION 3: The need for social and digital inclusion**

Today, in general terms, the overall concept of social and digital inclusion has been overlooked by the majority of USFs. In order for universal service to truly bring benefits to all, it needs to be re-examined and redefined to ensure that all communities as well as targeted population groups have access to information and communications technologies (ICTs). It is recommended to ensure that USFs legal and legislative framework incorporate the need for development of specific content and applications and for digital inclusion. Ensuring connectivity and provision of ICT equipment for anchor institutions – such as schools, universities, libraries, hospitals and cultural institutions – should be a primary goal of addressing digital inclusion.

4. **RECOMMENDATION 4: Transparency, Visibility and Accountability**

Best practices recommend the establishment of an independent unit to manage the USFs in a transparent, autonomous and competitive manner. This would trigger innovation in connecting rural and underserved areas and would provide the best possible quality of service to users. Increasing transparency and accountability will improve buy-in and commitment from all stakeholders. In addition, there is a need for a regular and consistent form of financial reporting. It is also important to have a clearly defined governance and governance structure.

5. **RECOMMENDATION 5: Capacity Building, Sustainability and Complementary Services**

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 previously had little or no access to telecommunications of any kind. Therefore, in addition to providing basic telecommunications infrastructure and services, it is recommended that USFs take into account the need for sustainability.

6. **RECOMMENDATION 6: Availability of Resources and Knowledge**

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. The programmes and targets established for the deployment of tele-centres, community information centres and cyber labs have 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.

7. **RECOMMENDATION 7: Establish USFs to address broadband access**

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 should be removed. USFs could move in three main directions, namely:

- An increase in importance as a facilitator and coordinator. In this role, it would act to stimulate market forces by piloting innovative rural service and application concepts, creating demand for advanced ICT connectivity and services (e.g., through financing broadband access for schools, more direct support of users and applications) and establishing an enabling regulatory environment.
- A funding mechanism to extend broadband networks into rural and economically difficult areas through support at both the retail (e.g., national roaming through shared access of active network components) as well as the wholesale level (e.g., sharing network facilities such as backbones, wireless towers and other passive infrastructure).[84]
- The use of funds for targeted ancillary/complementary ICT related activities relevant to the government digital agenda, e-services/e-inclusion and digital inclusion.

8. **RECOMMENDATION 8: Alternative financing mechanisms**

A growing number of governments want to ensure that the majority of the population has access to high speed broadband at reasonable rates and this is reflected in a greatly increased and ever multiplying number of national broadband plans and in the frequently expressed desire to include broadband deployment (both fixed and mobile) in the USF funding mechanism. In situations where the current USF is not geared for broadband and cannot accommodate it, it is recommended that other models be considered to further expand the scope and reach of the USF such as PPPs (Public Private Partnerships), supplementary direct government funding, and contributions in kind (e.g., access to national, regional or local infrastructure, rights of way, etc.).

9. **RECOMMENDATION 9: Regulators as a partner for development and social inclusion**

The evolving role of regulators including socio-economic activity may be best achieved by universal service initiatives in which the USFs are used to support projects for the underserved and people with special needs. The various relevant agencies can also team up with other social partners and stakeholders to engage in public education, forums and other

[84] ICT Regulation Toolkit

information dissemination measures which will benefit the general population and promote understanding of benefits of the various technologies.

9. BIBLIOGRAPHY AND REFERENCES

9.1 Africa

- General
  - Africa's ICT Infrastructure, Building on the Mobile Revolution, Mark D. J. Williams, Rebecca Mayer, and Michael Minges, The International Bank for Reconstruction and Development / The World Bank, Washington D.C., 2011
  - Insights to the African telecom market 2011: Analysis, forecasts and commentary, by TelecomsMarketResearch.com, in association with Buddecomm, August 2011
  - Is the Universal Access Fund in Africa Creating an Enabling Environment for ICT Infrastructure Investment in Rural and Perceived Uneconomic Areas?, Enrico Calandro, http://ssrn.com/abstract=1724465
  - Report on Universal Access and Service Funds in the Sub-Saharan African Region, ITU, Edgardo Sepulveda, April 2010
  - Report On Utilisation and Management of Universal Access/Service Funds, Association of Southern Africa, Gaborone, Botswana, 2009
  - Rural Broadband, CTO, CRC Africa Forum, Tanzania, August, 2011
  - SADC Toolkit on Universal Access Funding and Universal Service Fund Implementation, Harmonization of ICT Policies in Sub-Sahara Africa, ITU 2011
  - Mobile operators: Bharti Airtel, Etisalat, Orange, Vodacom, Vodafone
- Burkina Faso:
  - Autorité de régulation de communications électronique de Burkina Faso, www.arce.bf
- Cameroon
- Côte d'Ivoire:
  - Agence des télécommunications de Côte d'Ivoire (ATCI): http://www.atci.ci
- DRC:
  - Autorité de Régulation de la Poste et des Télécommunications du Congo (ARPTC): http://www.arptc.cd
- Gabon:
  - Agence de Régulation des Télécommunications de Gabon (ARTEL): http://www.artel.ga
- Ghana:
  - National Communications Authority (NCA): http://www.nca.org.gh
  - GIFEC: http://gifec.gov.gh
  - UNDP, www.undp-gha.org
- Lesotho:
  - Lesotho Telecommunications Authority: http://www.lta.org.ls
- Madagascar:
  - Office Malagasy d'Etudes et de Régulation des Télécommunications (OMERT): http://www.omert.mg
- Mali
- Mauritius:
  - Information and Communication Technologies Authority (ICTA): http://www.icta.mu
- Mozambique:
  - Instituto Nacional das Comunicações de Moçambique (INCM), http://www.incm.gov.mz

- Ministerial Diploma 79/2007 dated 4 July 2007 on the annual contribution to be paid by the telecom operators to the Universal Service Access Fund
- Mozambique Country Report, Francisco Giroth, Instituto Nacional das Comunicações de Moçambique, ITU Regional Workshop on ICT Accessibility for Persons with Disabilities for the Africa Region, Lusaka (Zambia), 15 and 16 July 2008, http://www.itu.int/ITU-D/sis/PwDs/Seminars/Zambia/Documents/Presentations/025-Giroth%20Francisco-E.pdf
- http://www.africantelecomsnews.com/resources/AfricaOpp_Morocco.shtml
- http://allafrica.com/stories/201008300391.html
- http://www.internetworldstats.com/africa.htm#mz
- http://www.intel.com/content/dam/www/public/us/en/documents/white-papers/usf-support-ict-broadband-programs-paper.pdf
- http://mybroadband.co.za/news/business/12023-mozambique-s-tmo.html
- Vodacom Mozambique website, http://www.vodacom.com/av_wwa_where.php

- Niger:
  - Autorité de Régulation Multisectorielle (ARM): http://www.arm-niger.org
- Nigeria:
  - Nigerian Communications Commission (NCC): http://www.ncc.gov.ng
  - Universal Service Provision Fund (USPF): www.uspf.gov.ng
  - USPF Strategic Plan, 2007-2011
  - Universal Service Provision Annual Report, 2009
  - http://www.itu.int/ITU-D/ICTEYE/Regulators/Regulators.aspx#
  - http://www.africantelecomsnews.com/resources/AfricaOpp_Nigeria.shtml
  - http://thenextweb.com/africa/2011/08/08/getting-the-next-50-million-nigerians-on-broadband/
- RSA:
  - Independent Communications Authority of South Africa (ICASA): http://www.icasa.org.za
  - Universal Service and Access Agency of South Africa (USAASA): http://www.usaasa.org.za
  - Electronic Communications Act, No. 36 of 2005
  - Regulations: Prescribed Annual Contributions of Licences to the Universal Service and Access Fund, ICASA, February 2011
  - http://www.africantelecomsnews.com/resources/AfricaOpp_South_Africa.shtml
  - http://mybroadband.co.za/news/broadband/39777-broadband-penetration-and-gdp-sa-still-sucks.html
  - http://www.mbendi.com/indy/cotl/tlcm/af/sa/p0030.htm
- Rwanda:
  - Rwanda Utilities Regulatory Agency (RURA): http://www.rura.gov.rw
- Senegal
- Swaziland:
- Tanzania:
  - Tanzania Communications Regulatory Authority (TCRA): http://www.tcra.go.tz
- Togo:
  - Autorité de Réglementation des Secteurs de Postes et Télécommunications (ART&P): http://www.artp.tg
- Uganda:
  - RCDF Annual Report, 2009/10
  - Brochure, Uganda Communications Commission, Rural Communications Development Fund
  - List of Secondary Schools ICT Laboratory for Publication, March 2012
  - Rural Communications Development Fund (RCDF) Supplement, Leveraging ICT into Rural Areas of Uganda, October 21, 2010

- Rural Communications Development Fund (RCDF) Supplement, UCC connects Mpondwe border post to ICT highway, October 12, 2011
- Rural Communications Development Fund (RCDF) Supplement, UCC supports MoES in retooling of ICT teachers in government-aided secondary schools, March 5, 2012
- Micro Credit Mechanisms: Case of the Village Phone Model in Uganda, John Paul Bagiire, MTN Uganda Limited, Presentation to the ITU Public & Private Sectors Partnerships Forum: PPPF, Nairobi, Kenya, June 2007
- http://www.itu.int/ITU-D/ict/newslog/Successful+Liberalization+Transforms+Ugandas+Mobile+Market.aspx
- http://www.itu.int/net/itunews/issues/2009/06/31.aspx
- http://www.telecompaper.com/news/uganda-rural-broadband-penetration-rises-to-14-study
- http://www.ratio-magazine.com/201009223662/Uganda/Uganda-Where-is-the-Space-for-Competition-in-Uganda-s-Mobile-Market.html

- Zambia:
  - Zambia Information & Communications Technology Authority: http://www.zicta.zm
- Zimbabwe:
  - Postal and Telecommunications Regulatory Authority of Zimbabwe (POTRAZ): http://www.potraz.gov.zw

9.2 Arab States

- **Algeria**
  - Telecom Law Nr. 2000-03 on August 5th 2000
  - Executive Decree Nr. 03-232 on June 24th 2003
  - Decree Nr. 09 -310 on September 23rd 2009
  - Nedjma (Wataniya Algerie)
- **Egypt**
  - www.ntra.gov.eg
  - Workshop on **Access to Broadband** *"Universal Service Opportunities and Challenges* - Ahmed Abd-El Aziz – 2005
  - Application of DOI in Egypt – Shindy - 2006
  - Global Information Society Watch – Egypt – Leila Hassanin – April 2007
  - Vodafone Egypt
- **Mauritania**
  - www.access.mr
  - Telecommunication Law of July 11, 1999
  - Decree Nr.2001-06 on June 27, 2001
  - Decree Nr. 2002-06 of February 7, 2002
  - Mauritel
- **Morocco:**
  - Agence Nationale de Réglementation des Télécommunications (ANRT): http://www.anrt.ma
  - http://mpra.ub.uni-muenchen.de/8675/1/telecom-paper-Morocco.pdf
  - http://www.internetworldstats.com/af/ma.htm
  - France Telecom Orange
  - Maroc Telecom
- **Oman**
  - Oman Telecommunications Law 2002

- Universal Service Policy and Its Implementation Strategy - Telecommunications Regulatory Authority (TRA) Sultanate of Oman - June 2009
- Arabian Busines.com - June 15, 2012
- Nawras
- Developing a national broadband strategy for Oman – A Report to the Ministry of Transportation and Communications – May 2012

- **Saudi Arabia**
  - CITC Annual Report 2010
  - USF Programmes – Presented by Andrew Dymond on Feb.29, 2012 published by INTELECON
  - The Universal Access and Service Policy – Ministry of Communications and Information Technology – 17/06/2006
  - Decision Number 165/1428 dated 04/06/2007
  - http://www.mcit.gov.sa/english/news/News130_en.htm
  - Mobile operator: Zain KSA

- **Sudan**:
  - National Telecommunication Corporation (NTC): http://www.ntc.org.sd
  - National Strategy for Building the Information Industry in Sudan, http://www.ntc.org.sd/index.php?page=subject2&lng=eng&pid=168.
  - ICT Fund, http://www.ntc.org.sd/index.php?page=subject2&lng=eng&pid=169
- **Tunisia**
  - Telecommunications Law Nr. 2001-01 of January 15th 2001
  - Law Nr. 2002-46 on May 7th 2002
  - Law Nr. 2008-01 on January 8th, 2008
  - Tunisiana

9.3 Asia and the Pacific

- General
  - Universal Service Funds – Review from Staatskoerant – August 2010
  - ITU Workshop on What rules for Universal Service in an IP enabled NGN environment? – Background Paper – April 2006
  - TAU Project – Full Report – 2007 – www.pustral-ugm.org/tau/download/ final/Completion Report.pdf
  - Asian USF Leaders Meet in Jakarta – US AID – June 2011 – GBI Portal: www.gbiportal.net
  - Mobile operators: Axiata, Bharti Airtel, Indosat,
- Afghanistan
  - Universal Access Programme – Operating Manual

- Australia
  - Universal Service Policy in the NBN – www.dbcde.gov.au
  - USO Australia – TELSTRA's USO Policy – www.telstra.com.au/abouttelstra/commitments/uso
  - Universal Service Assessment 2010-11 – Australian Communications and Media Authority
  - New USO Body – www.itnews.com.au/news/2011current-events
  - ACMA Industry Monitoring Section – Ed Walton – Policy Analyst

- Bangladesh
  - Bangladesh Telecom Regulatory Commission

- ICT Sector Performance Review for Bangladesh – Includes 2011 TRE Survey – Department of Computer Science and ICT – Asian University for Women
- Grameen Telecom's Village Phone Programme in Rural Bangladesh: a Multi-media Case Study – Final Report March 17, 2000, prepared by Dr. Don Richardson, Ricardo Ramirez and Moinul Haq- TeleCommons Development Group (TDG)
- IFC International Finance Corporation – World Bank Group – The Village Phone Programme 25/02/2008.
- Bangladesh – "Phone Ladies" wire up village life – www.seeingisbelieving.ca
- www.grameenphone.com - Corporate Responsibility

- China
  - Pages on Google Books – China's Telecommunication Revolution – Eric Harwit - Oxford University Press – https://play.google.com/store/books
  - Pages on Google Books – Information Science and Technologies in China – Guojie Li –Springer – http://books.google.ca/ books?id=K3Qo6D3GI
  - http://en.chinatelecom.com.cn/corp/index.html
  - US Department of Commerce http://web.ita.doc.gov/ITI/itiHome.nsf/9b2cb14bda00318585256cc40068ca69/7a19947d610987658525788c0041ea3d/$FILE/telecom%20market%20snapshot-china.pdf

- Fiji
  - Acting Director of Communications, Mr. Shivnesh Prasad
- India
  - Universal Service Obligation Fund of India – Electronic Brochure
  - Office Memorandum – Constitution, powers and functions of the Universal Service Fund Administrator – September 2002
  - USOF India – Overview by Archana Gulati – ITU Asia Pacific Centre of Excellence Workshop - November 2011
  - USOF India – A Critique of the Consultation Paper by the Telecom Regulatory Authority of India – August 2001
  - Universal Service Obligation Fund of India – www.dot.gov.in/uso/usoindex/htm

- Indonesia
  - Innovative Business Model for USO – BTIP Presentation – TAU Project – Jakarta September 2007
  - Digital Review of Asia Pacific 2009-2010 – Indonesia
  - Ministry of Communication and Information Technology of the Republic of Indonesia – 2010 Annual Report
  - National Policy on Intersectoral Approach for Rural ICT Development; Eddy Satriya – Coordinating Ministry for Economic Affairs; ITU Workshop; March 23, 2011
  - BPT3I
- Japan
  - Japanese USO System and Broadband Deployment - Mamoru UDAKA - Senior Researcher - 2010
  - Foundation for MultiMediaCommunications, Japan
- Malaysia
  - Universal Service Fund and Malaysia – Abu Saeed Khan - February 2010
  - Universal Service Provision Policy and Fund in Malaysia – SKMM May 2010
  - SKMM Official Web page: www.skmm.gov.my
  - Universal Service Fund and Malaysia –Abu Saeed Khan www.lirneasia.net

- http://www.telegeography.com/products/commsupdate/articles/2010/03/23/myr2-8-billion-from-usp-fund-to-be-used-for-national-broadband-projects/

- Mongolia
  - Rural ICT Policy Advocacy.... Mongolia – Presented in Bangkok. Thailand – July 2011
  - Evaluation and Assessment of the Universal Access Programmes of Mongolia – Ulaanbaatar, October 2010 – Andrew Dymond – Intelecon
  - Case Study of USOF Program of Mongolia – Berlin, November 2010 – Sonja Oestmann – Intelecon
  - Universal Service Obligation Fund of Mongolia – Government of Mongolia Website at January 2012
  - Universal Service Obligation Fund of Mongolia – Compilation by L.Antunaa, CEO, INTEC Co. Ltd. – Academy of ICT Essentials for Government Leaders – Ulaanbaatar, December 2008.
  - White Paper: Information and Communications Technology Development of Mongolia – ICTPA 2010
- Nepal
  - Nepal Telecommunications Authority – An Introduction – 2004
  - Telecommunication Policy 2060 – 2004
  - Bureaucracy and red tape stifling Nepal's rural telecom development – CommsUpdate – Jan 2012
- New Zealand
  - TCF - TSO Report July 2008 – Final
  - Universal Service Reform in N.Z – Webpage: www.voxy.co.nz/...universal-service-reform-new-zealand-ovum-comment March 10,2010
  - Ministry of Economic Development – www.med.govt.nz
  - New Telecomm Service Obligations Deed - November 2011
  - New Bill to improve Telecom Services –www.beehive.govt.nz -Steven Joyce December 2010
  - http://www.beehive.govt.nz/release/rural-telecommunications-plans-finalised
  - Telecom Act – Section 90
- Pakistan
  - Mr. Parvez Iftikhar – former head of USF Co - Pakistan
  - Universal Service Fund Company –www.usf.org.pk
  - As 2011 Comes to a Close - Parvez Iftikhar – December 2011
  - Universal Service Fund Policy – 2005 – Ministry of Information Technology - Government of Pakistan
  - Telenor Pakistan Becomes the First Cellular Operator to Complete USF Project – Published on September 29th 2009 – "Cellular-News

- Philippines
  - Universal Access in the Philippines – Cheryl Ruth Soriano – Paper for the CPR South 2 2007 – Research for improving ICT governance in the Asia-Pacific – December 2007
  - Achieving Universal Access through Liberalization, Regulation and Deregulation: The Case of the Philippine Telecom and ICT Sector- Mary Grace Mirandilla – Paper for the CPR South 2 2007.
  - Total Telecom: Cover Story – Universal Service. September 2000
  - Sourcing Brazil – Global News – Philippines Presidents Dissolves IT Commission – July 11, 2011
  - ADOC – GMA News –Aquino dissolves ICT Commission – July 2011

- Thailand
  - Act on Organization - 2010
- Vanuatu
  - www.trr.vu
  - Interviews with Allan Horne, former Regulator of the TRR, and Ron Box, newly appointed Regulator of the TRR
- Vietnam

- Chapter 20 – Telecommunications in Viet Nam – August 2001 – Roy Chun Lee –Associate Research Fellow, Taiwan WTO Center, CIEER
- Law 191 – November 2006 – Government of Vietnam
- Viet Nam Public Utility Telecommunication Service Fund - website: www.vtf.vn/en/intro

9.4 Europe

- General
  - Mobile operators: Telecom Italia, Vodafone,
  - Insights on the European Telecoms Market: Analysis, forecasts and commentary, TelecomsMarketResearch.com, in association with Buddecomm, August 2011
- Bulgaria:
  - The Communications Regulation Commission (CRC): http://www.crc.bg/index.php?lang=en
  - Telecommunications Law: http://www.crc.bg/files/_en/LAW_OF_THE_TELECOMMUNICATIONS.htm
- Czech Republic:
  - Czech Telecommunications Authority (CTU): http://www.ctu.eu/main.php?pageid=178
- Hungary:
  - The National Communications Authority Hungary: http://www.nhh.hu/index.php?id=hir&cid=892
- Italy:
  - Italian Communications Authority: http://www2.agcom.it/eng/eng_intro.htm
- Poland:
  - Office of Electronic Communications (UKE - Urząd Komunikacji Elektronicznej): http://www.en.uke.gov.pl
- Romania:
  - National Regulatory Authority for Communications: http://www.anrcti.ro/
- Russian Federation:
  - Ministry for Communications and Informatization of the Russian Federation: http://minsvyaz.ru/ru/
  - Institute of the Information Society: http://www.iis.ru/en/content/view/54/91/
  - Russian Association of Electronic Communication (RAEC): http://raec.ru/en/about/
  - Ukraine:National Commission for the State Regulation of Communications and Informatization: http://en.nkrz.gov.ua/nkrs_sostav/
- EU:
  - Community Guidelines for the application of State Aid Rules in Relation to Raid Deployment of Broadband Networks, 2009/C235/04, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:235:0007:0025:EN:PDF
  - EC decisions at http://ec.europa.eu/competition/sectors/telecommunications/broadband_decisions.pdf
  - Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services.
  - Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector and Regulation (EC) No 2006/2004 on cooperation between national authorities responsible for the enforcement of consumer protection laws.

9.5 The Americas

- General
  - APC Universal Access funds in the Andean Region – Analysis, reflections and proposals

- CEPAL – Uso de los fondos de acceso universal de telecomunicaciones en países de América Latina y el Caribe –United Nations - September 2011
- Regulatel – UAF in Latin America
- Regulatel, World Bank and CEPAL – New Models for Universal Access to Telecommunications Services in Latin America – Peter A. Stern and David N. Townsend – November 2006
- Presentación de Regulatel en el Foro México 15-17 de febrero de 2006
- Mobile operators: Nextel, Telefonica, TIM

- Argentina
  - Telecomunicaciones – Decreto 558/2008, Ley de Telecomunicaciones.
  - Order Reports on the Implementation of the Universal Service Funds from the Argentinian Senate on March 2012
- Bolivia
  - Telecomunicaciones – Ley No. 164 August 2011 – new Telecommunications Law for Bolivia
  - ASETA – El sector de las Telecomunicaciones de Bolivia
  - Políticas Publicas de acceso a las tecnologías de información y de inclusión digital en Bolivia (2007-2010) – Research document by Marlene Choque Aldana for IDRC/CRDI
- Brazil
  - ANATEL
  - Telecommunication Law 9.472/1997 and Decree 2.592/1998Research Document "Agencia Nacional de Telecomunicacoes (ANATEL) and the Universal Service in Brazil" by Andrea Mamprim Grippa presented to CEPAL on July 2009
  - http://www.teleco.com.br/cobertura.asp
  - ANATEL, RELATÓRIO DE GESTÃO DO EXERCÍCIO 2011FUNDO DE UNIVERSALIZAÇÃO DOS SERVIÇOS DE TELECOMUNICAÇÕES, 2012,at 20, available at http://www.anatel.gov.br/Portal/verificaDocumentos/documento.asp?numeroPublicacao=285674&assuntoPublicacao=Relat%F3rio%20de%20Gest%E3o%20do%20Fust%20-%20Exerc%EDcio%202011,%20de%2030/03/2012&caminhoRel=null&filtro=1&documentoPath=285674.pdf.
  - ANATEL, RELATÓRIO DE GESTÃO DO EXERCÍCIO 2011FUNDO DE UNIVERSALIZAÇÃO DOS SERVIÇOS DE TELECOMUNICAÇÕES, 2012,at 20, available at http://www.anatel.gov.br/Portal/verificaDocumentos/documento.asp?numeroPublicacao=285674&assuntoPublicacao=Relat%F3rio%20de%20Gest%E3o%20do%20Fust%20-%20Exerc%EDcio%202011,%20de%2030/03/2012&caminhoRel=null&filtro=1&documentoPath=285674.pdf.
  - ANATEL, Fundo de Universalização dos Serviços de Telecomunicações, 2009, at 13, available at http://www.anatel.gov.br/Portal/verificaDocumentos/documento.asp?numeroPublicacao=241303&assuntoPublicacao=Relat%F3rio%20de%20Gest%E3o%20do%20Fust%20-%20Exerc%EDcio%202009&caminhoRel=null&filtro=1&documentoPath=241303.pdf.
- Canada
  - Denis E. Henry - Vice President- Regulatory, Government Affairs and Public Law - Bell Aliant
  - Telecom Decision CRTC 2000-745
  - Telecom Decision CRTC 2011-653
  - Telecom Decision CRTC 2011-529
  - Telecom Notice of Consultation CRTC 2010-43
  - Telecom Regulatory Policy CRTC 2011-291
- Chile

- Políticas Públicas y Modelos de Negocio para el Desarrollo de la Infraestructura de Acceso Universal a la Sociedad de la Información; Gobierno de Chile Subsecretaria de Telecomunicaciones – diciembre 2005
- Informe Ejecución - FDT Primer Trimestre 2012 -Gobierno de Chile

- Colombia
  - CILAC Incidencia Regional Colombia
  - Compartel (number of presentations)
  - Juan David Olarte Torres – Coordinador Fondo de Tecnologías de la Información y las Comunicaciones
  - Patricia Corales Martinez - Compartel
  - Encuesta Regulatel 2012: Desarrollo de los Fondos de Acceso y Servicio Universal (FASU)
  - Online Telecom Reports – Colombia's fixed market still controlled by the 3 incumbents in 2011 – Isabelle Paradis – February 2011
  - www.mintic.gov.co/compartel
- Dominican Republic
  - The Experience of the Dominican Republic – by Edwin San Roman - ITU 2009
  - Indotel web site : www.indotel.org.do
  - "El Informador Dominicano" – December 6, 2009 – www.elinformadordominicano.com
- Ecuador
  - CILAC Incidencia Regional Ecuador
  - www.conatel.gob.ec
  - Nuevo Reglamento FODETEL – 05.01.10 – Secretaria Nacional de Telecomunicaciones.
- Guatemala
  - FONDETEL Guatemala – www.fondetel.gob.gt
  - Ministerio de Comunicaciones, Infraestructura y Vivienda Civil – Unidad de Administración Financiera – UDAFE Ejecución Presupuestaria al mes de diciembre 2010
  - Programa de Desarrollo Económico desde lo Rural – Secretaria de Planificación y Programación – SEGEPlan – 15 de febrero 2011
- Jamaica
  - Mr. Hugh Cross – Chief Executive Officer Universal Service Fund
  - Jamaica – Universal Service Fund – CTO – November , 2012
- Mexico
  - El acceso universal: el caso de México by Judith Mariscal Avilés and Fernando Ramírez Hernández for IDRC-CRDIPedro Francisco Guerra Morales – Ministerio de la Economía – Gobierno de México
  - mx.finance.yahoo.com/noticias – Feb.17,2012
- Nicaragua
  - FiTEL Nicaragua –: www.telcor.gob.ni
- Paraguay
  - CONATEL website: www.conatel.gov.py
  - http://www.telecompaper.com/news/tigo-wins-universal-service-licence-in-paraguay
  - RCR Wireless - November 8, 2011
- Peru
  - Government of Peru – Información Presupuestal del FITEL – www.peru.gob.pe
  - Ministry of Transportation and Communications -: www.mtc.gob.pe
- United States
  - Employees of the FCC

  - FCC website: www.fcc.gov
  - Testimony of D.Scott Barash Acting Chief Executive Officer of FCC – www.usac.org
- Uruguay
  - ANTEL – www.antel.com.uy – Social Responsibility
  - ANTEL – www.antel.com.uy – Annual Report – 2009
  - Evolución del Sector Telecomunicaciones en Uruguay – URSEC – www.ursec.gub.uy
- Venezuela
  - CILAC Incidencia Regional Report on Venezuela – Jun 2009
  - Informe Anual del Fondo de Servicio Universal correspondiente al año 2010 – CONATEL Venezuela

9.6 General

- Bashir Patel – COO Commonwealth Telecom Organization
- The Benefits of Applying Universal Service Funds to Support ICT/Broadband Programs, Intel Corporation, 2011, http://www.intel.com/content/dam/www/public/us/en/documents/white-papers/usf-support-ict-broadband-programs-paper.pdf
- BEREC Report on Universal Service – reflections for the future, June 2010
- ICT Regulation Toolkit, www.ictregulationtoolkit.org/en/Section.3289.html
- Intelecon – Universal Access and Service Funds – 2009 Update – October 2009
- Making Mobile Phones and Services Accessible for Persons with Disabilities, A joint report of ITU – The International Telecommunication Union and G3ict – the global initiative for inclusive ICTs, August 2012,
- http://www.un.org/disabilities/
- http://ec.europa.eu/information_society/activities/einclusion/policy/accessibility/index_en.htm
- http://globalaccessibilitynews.com
- Mobile Applications for Agriculture and Rural Development, Christine Zhenwei Qiang, Siou Chew Kuek*, Andrew Dymond and Steve Esselaar, ICT Sector Unit World Bank, December 2011
- Trends in Telecommunication Reform 2012 Smart Regulation for a Broadband World, ITU 2012
- Universal Service Policies in the Context of National Broadband Plans, OECD, Working Party on Communication Infrastructures and Services Policy, Paris, 28-29 March 2012