

I n t e r n a t i o n a l T e l e c o m m u n i c a t i o n U n i o n

Establishment of Harmonized Policies for the ICT Market in the ACP

**SADC ICT Policy
and Legal Framework:
A Review and Update
in the view of Convergence**

HIPSSA **Harmonization of
ICT Policies in
Sub-Sahara Africa**



Review and Update of SADC ICT Policy and Legal Framework

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Table of content

SUMMARY	8
> EXECUTIVE SUMMARY	8
1 <i>Assessment of SADC policy and legal framework's national implementation</i>	8
1.1 Independent regulatory authority	8
1.2 Licensing regime	9
1.3 Management of scarce resources.....	9
1.4 Human resource development.....	9
1.5 Infrastructure security and cybersecurity	9
1.6 E-strategies	9
1.7 Diffusion of services.....	10
1.8 Universal access / service fund	10
1.9 Multi-sectoral regulation.....	10
2 <i>Broad evolutions and specific changes to the existing SADC policy and legal framework</i>	11
2.1 Challenges and opportunities for SADC Policy Framework on Convergence.....	11
2.2 Broad evolutions proposed for the Protocol on Transport, Communication, and Meteorology	13
2.3 Broad evolutions proposed for the Telecommunications Policies for SADC.....	14
2.4 Broad evolutions proposed for the Telecommunication Model Bill for SADC	15
REPORT	18
> ASSESSMENT REPORT ON SADC MEMBER STATES ICT POLICY AND REGULATORY	
FRAMEWORKS	20
1 <i>The Republic of Angola</i>	20
1.1 Legal and Regulatory Framework.....	20
1.2 Responsibilities of the Ministry	21
1.3 The Regulatory Agency	21
1.4 Universal Access / Service	22
1.5 Licensing	22
1.6 Reform Process.....	22
2 <i>The Republic of Botswana</i>	23
2.1 Policy Framework	23
2.2 Sector Reform	24
2.3 Legal and Regulatory Framework.....	24
2.4 Financing	25
2.5 Licensing Framework.....	26
3 <i>Democratic Republic of Congo</i>	27
3.1 Policy Framework	27
3.2 Legal and Regulatory Framework.....	28
3.3 Structure of the Authority	28
4 <i>The Kingdom of Lesotho</i>	28

4.1 Policy Framework	28
4.2 Regulatory Decisions	29
4.3 Functions of the Authority	30
4.4 Legal and Regulatory Framework	30
4.5 Reform Process	31
4.6 Establishment of Lesotho Telecommunications Authority (LTA)	31
4.7 Institutional Structure	32
4.8 Finances	32
5 The Republic of Madagascar	32
6 The Republic of Malawi	32
6.1 Policy Framework	32
6.2 Legal and Regulatory Framework	33
6.3 Institutional Framework	34
6.4 Finances	34
6.5 Sector Reforms	34
6.6 Comments	35
7 The Republic of Mauritius	35
7.1 Policy Framework	35
7.2 Legal and Regulatory Framework	36
7.3 Institutional Structure of the Authority	37
7.4 Finances	38
7.5 Licensing Framework	39
8 The Republic of Mozambique	39
8.1 Policy Framework	39
8.2 Reform Process	41
8.3 Legal and Regulatory Framework	41
8.4 ICT Implementation Strategy	41
9 The Republic of Namibia	42
9.1 Policy Framework	42
9.2 Legal and Regulatory Framework	43
9.3 Finances	43
9.4 Licensing Framework	43
9.5 Universal Service	45
10 The Republic of Seychelles	45
10.1 Policy Framework	45
11 The Republic of South Africa	46
11.1 Policy Framework	46
11.2 Legal and regulatory Framework	47
11.3 Licensing Framework	48
11.4 Universal Service Agency of South Africa (USASA)	50
11.5 Institutional Framework	50
12 The Kingdom of Swaziland	51
12.1 Policy Framework	51

12.2 Legal and Regulatory Framework.....	52
12.3 Minister's Powers under the Act	53
12.4 Licensing Framework.....	53
12.5 Universal Access and Universal Services.....	54
12.6 Transition Provisions	54
12.7 Broadcasting Services	54
13 The United Republic of Tanzania	55
13.1 Policy Framework	55
13.2 Legal and Regulatory Framework.....	56
13.3 Secondary Legislative Framework.....	57
14 The Republic of Zambia.....	59
14.1 Policy Framework	59
14.2 Policy Making Functions	60
14.3 Legal and Regulatory Framework.....	60
14.4 Institutional Structure of the Authority	61
14.5 Financing	62
14.6 Market Structure	62
14.7 Regulatory Challenges	63
15 The Republic of Zimbabwe	63
15.1 Policy Framework	63
15.2 Legal and Regulatory Framework.....	65
15.3 Institutional Structure	65
15.4 Licensing	66
15.5 Universal Service and Universal Access	66
15.6 Comment	67
16 Overall Assessment of ICT Policy, Legal and Regulatory Development and Best Practices	67
16.1 Independent Regulatory Authority	67
16.2 Licensing Regime	68
16.3 Management of Scarce Resources.....	68
16.4 Human Resource Development.....	69
16.5 Infrastructure Security and Cyber-Security	69
16.6 E-Strategies	69
16.7 Diffusion of Services	69
16.8 Universal Service Fund.....	69
16.9 Multi-Sectoral Regulation.....	70
16.10 Reform Process	70
16.11 Implementation Challenges	70
17 Recommended Best Practices	70
> BROAD EVOLUTIONS AND SPECIFIC CHANGES TO SADC ICT POLICY AND LEGAL FRAMEWORK	72
1 Convergence: challenges and opportunities for SADC ICT policy.....	72
1.1 Definition of convergence	72

1.2 Technology and service neutrality	74
1.3 Content	74
1.4 Insititutions.....	75
1.5 Bottlenecks	75
1.6 Consumer Interests	76
1.7 Mediation	76
1.8 Competition and investment	76
<i>2 Broad evolutions and specific changes proposed for the TCM protocol.....</i>	<i>77</i>
<i>3 Broad evolutions and specific chanes proposed for the Telecommunications Policies for SADC.....</i>	<i>81</i>
<i>4 Broad evolutions and specific changes proposed for the Telecommunication model bill for SADC.....</i>	<i>86</i>
ANNEXES	89
> INTERVIEWS'REPORT	89
<i>1 Background and project introduction</i>	<i>89</i>
<i>2 Purpose of interviews and methodology.....</i>	<i>89</i>
2.1 Purpose of interviews	89
2.2 Selection of stakeholders.....	90
2.2.1 Legislators	90
2.2.2 Ministries and Policy Makers	90
2.2.3 Regulators	90
2.2.4 Regional bodies	91
2.2.5 Telecom operators (SATA)	91
2.2.6 Broadcasters.....	91
2.2.7 Consumer organizations	91
2.3 Description of methodology: questionnaire and telephone interviews	92
3 Results.....	93
3.1 Results per topic	93
3.1.1 Status of policy and impact of regional harmonization (questions 1 to 4)	93
3.1.2 Fulfilment of policy goals (question 5).....	93
3.1.3 Role of incumbent (question 6)	93
3.1.4 Comparison of SADC policy against other regional harmonization approaches (question 7)	93
3.1.5 Role of regional bodies (SATA, CRASA) (questions 8, 9)	94
3.1.6 Role and achievement of regulator (question 10)	94
3.1.7 Policy areas (question 11)	94
3.1.8 Status of competition achieved (question 12)	94
3.1.9 Areas for action (questions 13 to 15)	94
3.2 Results on a per country basis	95
3.2.1 Angola	95
3.2.2 Botswana.....	95
3.2.3 Democratic Republic of Congo	95
3.2.4 Lesotho	95

3.2.5 Madagascar	97
3.2.6 Malawi	97
3.2.7 Mauritius	97
3.2.8 Mozambique	99
3.2.9 Namibia	99
3.2.10 Seychelles	102
3.2.11 South Africa	104
3.2.12 Swaziland	104
3.2.13 Tanzania	104
3.2.14 Zambia	107
3.2.15 Zimbabwe	107
4 Summary	109
5 Questionnaire	109
> SUMMARY OF SADC MEMBER STATES' NATIONAL POLICY, LEGAL AND REGULATORY FRAMEWORKS DEVELOPMENT	115
> SADC MEMBER STATES ICT/TELECOMMUNICATIONS NATIONAL POLICIES AND LEGISLATIONS	116
1 Republic of Angola	116
2 Republic of Botswana	116
3 Democratic Republic of Congo	116
4 Kingdom of Lesotho	116
5 Republic of Malawi	116
6 Republic of Mauritius	116
7 Republic of Mozambique	117
8 Republic of Namibia	117
9 Republic of South Africa	117
10 Kingdom of Swaziland	117
11 Republic of Tanzania	117
12 Republic of Zambia	118
13 Republic of Zimbabwe	118

Summary

summary

> EXECUTIVE SUMMARY

The first step of the ambitious project to “review and update the SADC ICT policy and legal framework” agreed to during the Meeting of SADC Ministers responsible for Telecommunications, Post and ICT held in Namibia in 2009 was an assessment of SADC member states’ national ICT policies and legislations. The purpose of this was to identify best practices as well as gaps in the region. The second step of the review and update process was to prepare a proposal for the broad evolution of the existing SADC ICT policy and legal framework starting with some immediate specific changes.

This executive summary, therefore, combines the relevant aspects of the assessment of national ICT policies and legislations, interviews with stakeholders from SADC member states and benchmarks from other regional economic communities in Africa. Most importantly, this document summarises the proposed broad evolutions towards a new *SADC Policy Framework on Convergence* together with some specific changes to the existing *SADC Protocol on Transport, Communications and Meteorology* (hereafter Protocol on TCM), *Telecommunications Policies in SADC* and *Telecommunication Bill Model for SADC*.

1 Assessment of SADC policy and legal framework’s national implementation

The assessment of national ICT policies and regulations concluded with regard to the implementation of a regional harmonised framework that SADC member states appreciate the important role that ICT play in the development of their economies. This is seen in the new thrust the policy frameworks and legal regulatory frameworks are taking. The various countries are at different levels of developing ICT policy and legal regulatory frameworks.

Out of the ten countries assessed in the region it is apparent that they are being compelled to address the convergence of communications, broadcasting and internet services which are now commonly viewed as electronic communications services and networks. This necessitates the establishment of a regulatory system that provides a technology neutral and service neutral licensing regime. There is also recognition that there is a need to adopt a harmonised approach to regulation within the framework of the SADC protocol, policy guidelines and model legislation.

The following best practices can be drawn from the policy, legal and regulatory regimes prevailing in the region:

1.1 Independent regulatory authority

The frameworks emphasise the need to develop and adopt a legal and regulatory regime that strengthens the institution of the regulator and ensures its independence.

1.2 Licensing regime

The trend that is permeating in the regime is the establishment of a technology and service neutral licensing regime or a horizontal licensing framework¹. This is being done to ensure that the converged services can be diffused through appropriate, effective and cheaper technologies. Furthermore, the licensing regimes being established seek to reduce regulatory burden through the introduction of competition which if done effectively can result in reduced price and quality of service regulation.

The trend is also towards establishing ex-ante regulation whereby the expected regulatory conditions are presented by the regulator in advance. For instance the requirement to (1) publish an Interconnection Reference Offer (IRO); (2) provide minimum terms and conditions that should be reflected in an IRO or an interconnection agreement, (3) networks be unbundled so that an operator requiring interconnection only secures these network components he requires; (4) have the costs of network components and rates/tariffs to be cost based and costs to be based on forward looking principles; (5) the classification of services into wholesale and retail services; and (6) the definition of market categories and the designation of the dominant market power operator for each market segment².

1.3 Management of scarce resources

The responsibility of managing and controlling the radio frequency spectrum, numbering plan and other resources has been left fully in the hands of the regulatory authorities with the responsible Ministries being mainly responsible for policy formulation.

1.4 Human resource development

The development of relevant expertise and skills is seen as a strategy of paramount importance. There is a general understanding that this can be achieved through greater budgetary commitments to training and education for the attendance at existing ICT policy and regulatory training programmes, the investigation of the need for Centres of Excellence and also integrating ICTs into the educational system.

1.5 Infrastructure security and cybersecurity

The importance of national security and the development of effective legislation to deal with issues of personal privacy, data protection and countering cybercrime is coming out as a critical requirement in the policy frameworks.

1.6 E-strategies

The adoption of e-strategies and e-applications is of strategic importance to the member states and there are strategies that need to be implemented urgently to ensure accelerated social development especially in areas such as e-education, e-health, e-commerce etc.

¹ Horizontal licensing refers to technology and service neutral licensing as opposed to vertical licensing which is service and technology specific, such as GSM licensing for mobile services, ISP authorisation for internet access services. Horizontal licensing emerged as a response to a market structure evolution from vertically integrated operators to horizontal service provision as a result of convergence of services and applications across historically distinct platforms like broadcasting and telecommunications, and within these, such as fixed and mobile.

² It does however require complex access regulation around cost based interconnection and facilities for new entrants and market definitions for the determination of significant market power, which require considerable capacity and competency. Though once this is determined there is the potential for less regulatory intervention in competitive markets.

1.7 Diffusion of services

There is also recognition that the internet is an integral part of convergence and services such as Voice over Internet Protocol (VoIP) cannot be prohibited anymore. The need to rapidly deploy the infrastructure belonging to utilities such as electricity, water, rail is seen as a possible solution towards easing infrastructure development challenges. The need to share network facilities has also been seen as a critical measure to reduce the cost of infrastructure development.

1.8 Universal access / service fund

The major challenge with respect to universal service funds relates to implementation. This conclusion is made on the backdrop of the fact that almost all the legislation in the region captures this concept but very few of the funds are functional. There is a need to conduct cost-benefit analyses, and investment decision impacts of such initiatives in relation to what they can achieve, explore 'play' alternatives to 'pay' (levies) and explore and recommend the best mechanism of operationalising the fund if they are found to be most effective.

1.9 Multi-sectoral regulation

Most of the jurisdictions in the region have seen the value of combining the regulation of telecommunications and broadcasting under one regulator. This is another measure of reducing regulatory burden and avoiding the duplication of administrative and technical functions in resource constrained environments. Of note is the fact that some of the countries keep the two regulators separate mainly for political reasons.

Whilst the region has made considerable strides in embracing convergence and ICTs, there are still challenges which militate against the member states achieving optimal policy and regulatory goals. These challenges relate to the (1) development of a robust infrastructure that supports broadband services; (2) lack of financial resources due to competing social obligations on the part of Governments; (3) reluctance by Governments to relinquish their shareholding in the incumbent fixed network operators and allow private participation; (4) the slow pace of implementing policies and regulations to support the deployment of services, (5) lack of human resources, there is a lot of movement of human capital from Government institutions and regulatory authorities to the private sector where there are more attractive incentives and remunerations, (6) cumbersome and bureaucratic processes for investment approvals.

From the foregoing assessment, the following recommendations arise:

- support of a horizontal licensing regime by the legal and regulatory environment should;
- urge member states to support a multi-sectoral regulatory framework whereby there is established one regulatory authority to regulate communications and broadcasting sector;
- focus sector reforms on permitting full competition in response to convergence between broadcasting and communications is rapidly transforming the regulatory and policy environment;
- strengthen human resource capacity and ensure independence of regulatory authorities by enjoining ministries to establish appropriate institutional arrangements;
- reduce red-tape and bureaucratic investment rules and approval processes to attract investment in the sector

- increase the utilisation of excess capacity with other utilities such as electricity, water road and rail to increase deployment of electronic communications networks and services ;
- develop more robust mechanisms to operationalise universal access / service funds borrowing from the experiences of other regions' economies and adapting the mechanisms to the regional context;
- encourage member states to implement to pro-actively develop and adopt policy, legal and regulatory frameworks in line with the most current regional reference framework as the information society is dynamic and technologies and services continuously evolve;
- foster genuine public-private partnerships;
- raise awareness amongst all stakeholders on the benefits of ICTs and involve them in policy, legal and regulatory framework development.

2 Broad evolutions and specific changes to the existing SADC policy and legal framework

The broad evolutions and specific changes listed below is an overview with respect to changes foreseen as necessary in light of the assessment of national policies displayed above. This list of proposals contains the specific changes recommended as well as their rationale and motivation. Thereby, the issue of convergence is an aspect that motivates changes in other areas. Convergence is an ongoing process and is accelerating change in markets triggering modifications of the other policy documents. Convergence as a specific issue is today not summarised in a separate policy document within the SADC region therefore its challenges and opportunities will be captured in a new policy framework document. This document will serve as a reference for the integration of convergence in the SADC telecommunications policy as well as the model bill.

The analysis is based on various documents³, such as those constituting the SADC ICT policy and legal framework but it also includes some further SADC policy guidelines. These documents were mainly developed by TRASA / CRASA, the telecommunications regulators' association of Southern Africa and cover the period from 2000 to 2006. Furthermore, policy and legal frameworks from other regional economic communities were taken into account, such as the ICT policy framework as well as the model bill from the COMESA countries and also the ECOWAS supplementary acts⁴. Furthermore, sources regarding the legislation in specific countries where included in the analysis⁵.

2.1 Challenges and opportunities for SADC Policy Framework on Convergence

Convergence is a major motivation for updating the existing SADC ICT policy and legal framework. It is one of the areas in which the SADC region currently has not developed a common policy approach. As industry reorganises, policies and legislations need to

³ See http://www.itu.int/ITU-D/projects/ITU_EC_ACP/hipssa/documents-sadc.html. Furthermore, on specific items documents e.g. from the CRASA workshop on convergence have been assessed, see http://www.crasa.org/conver_wks.htm. Also the country specific status documented at <http://www.crasa.org/10agm.htm> has been analysed.

⁴ With respect to ECOWAS, the following documents were analysed: (a) the supplementary act of the management of radio-frequencies spectrum (2007), (b) the supplementary act of the harmonisation of policies of the regulatory framework for the information in communication technology sector (2007), (c) the supplementary act on access and interconnection in respect of ICT sector networks and services (2007), (d) the supplementary act on the legal regime applicable to network operators and service providers (2007), (e) the supplementary act on numbering plan management (2007), (f) supplementary act on universal access/service (2007).

⁵ E.g. the legislation mentioned at <http://www.researchictafrica.net/index.php/browse-resources> containing the telecommunications acts and other relevant legislation.

recognise this evolution. A shared understanding among SADC member states of this transformational changes once formulated within its regional framework and constituting documents (Protocol on TCM, SADC Telecommunications Policy, Model Bill) would provide the region with a shared common vision to address the challenges of convergence and reap its potential benefits for economic development.

The first challenge in achieving this common understanding lies with definition of convergence. International comparison and benchmarking does not come up with such a universally accepted definition. From an economic and technical perspective convergence refers to the integration of different technologies into a common digital technology of information and communications that allows delivery of video, audio, text, graphics, data and other content. Different industries like broadcasting and telecommunications have evolved in parallel to the development of the Internet. The new digital technologies now allow both for traditional and new communication services to be provided over many different networks. This whole process of integrating infrastructure, service and content provision, and end user equipment is denoted as convergence.

As market convergence occurs, companies are no longer limited to original markets such as telecom operators to voice or cable companies to TV. This leads to a situation, where regulatory frameworks, which were traditionally designed for markets with clear functional differentiations between services and infrastructure, cannot fully cope with the changing requirements of industry. In order to support countries' economic growth, telecom regulation at national level must therefore be dynamic and responsive to evolving conditions. With regard to the implementation of regulating convergence, there exist in general three major approaches:

- Legislative approach with the implementation of a new legal framework
- Regulatory approach through incremental adaptation of past rules and regulations rather than fundamental redesign of existing legal regimes
- Self-regulation approach, without intervention of the administration.

The clear advantages of a legislative approach are that it is transparent, removes the legal constraints of existing laws and offers the possibilities to eliminate contradictions and inconsistencies. Thus, such an approach implemented on regional level contributes to harmonisation and supports compliance by national administrations.

Based on this initial assessment, the new regulatory framework shall focus on the following aspects.

- **Technology and service neutrality:** In a converging environment, the possibility to transport different services via different technologies and infrastructures calls for technology and service neutrality, which also needs to be reflected in the licensing policy approach.
- **Content:** As content is provided by different sectors, the laws and regulations from these sectors have to be streamlined in a converged framework. This raises the question of whether the country's legal framework contains the necessary legislation to support an ICT environment (e.g., intellectual property laws, computer crime, electronic transactions, data privacy and security).
- **Institutions:** A convergent approach leads to the question of which institutions shall be responsible for the execution of the new framework(s). This may be done by separated organisations that have to coordinate their approach closely or by one single merged multi-utility regulatory authority. In the SADC member states the assessment report shows that the establishment of converged authorities is further advanced than the development of converged ICT policies.
- **Bottlenecks** and aspects of telecommunications regulation are mainly to be found in the areas of (1) market entry and licensing, (2) interconnection / interoperability and

access to networks including network unbundling, access and to content, (3) access to frequency spectrum, (4) pricing, (5) universal service/access, (6) standards, (7) network security / robustness, and (8) converged numbering.

- **Licensing:** Modifications to regulations have focused mainly on reducing market-entry requirements for new technologies by introducing a simpler and technology-neutral licensing regime. In the area of spectrum management, the concept of technology and service neutrality is being proposed, as well as spectrum trading and in-band migration, to allow the more flexible introduction of new services and obtain a more efficient use of the spectrum. Interconnection practices are also shifting and concepts are being implemented such as “access” and “capacity based interconnection”.
- **Consumer interests:** In an environment characterised by competition and enhanced technological capabilities with respect to the processing and storage of data, a large number of options for products and tariffs and a variety of charging and payment methods, consumer rights remain an important topic to be covered by the ICT policy with respect to the security of their personal data as well as for ensuring consumer rights towards operators and service providers.
- **Mediation:** The implementation of the new regime shall be a transparent process and shall respond to the needs of the actors in the market. This covers issues like standardised consultation processes including publication of consultation documents, deadline and format for responses.
- **Competition and investment:** A new converged legal framework shall continue to support full competition and encourage investments in the relevant sectors. In this respect, investments to facilitate broadband (for the transmission of voice, data, video, content) will play a crucial role. Thereby, backbone transport is a critical requirement.

2.2 Broad evolutions proposed for the Protocol on Transport, Communication, and Meteorology

With respect to the now outdated TCM protocol, the following changes are proposed in chapter 10 referring to telecommunications.

- **Article 10.1** regarding the objectives would have to be updated and should encompass some new elements such as considering (1) how to foster further investment into the market, (2) how to encourage the diversity of telecommunications and multimedia services, (3) how to take advantage of convergence of e.g. networks, content and services, and (4) how to support the overall economic and social development of each country and the SADC region as a whole.
- **Article 10.2** deals with telecommunications policy and its focus needs to be put upon the management of a more competitive market.
- **Article 10.3** deals with universal service in more detail and does not require much change with respect to the level contained in the TCM protocol. However, with respect to more detailed policies and the implementation of universal service/universal access concepts, additional provisions and new legislation are required.
- **Article 10.4** on broadcasting needs to be further developed with respect to a stronger integration of telecommunications and broadcasting (“convergence”).
- **Article 10.5** deals with network provision and maintenance and needs to be updated and streamlined. With respect to the development of the region this topic should also

take into consideration the network interoperability and network integrity throughout the SADC member states.

- **Article 10.6** deals with regional co-operation. Experience in the region and from other jurisdictions suggests that joint approaches to further policy making and harmonisation should be further intensified. The TCM protocol should therefore reiterate the member states' intention for such harmonisation.
- **Article 10.7** deals with the regulatory framework. There is a need to add policy elements relevant to a more open market such as licensing and market entry, access and interconnection, tariff regulation for retail and wholesale services, the management of scarce resources etc. This reflects the technical and competitive development over the last 10 years.
- **Article 10.8** identifies the responsibilities of national regulatory bodies. Some issues have progressively developed over the past decade and there are some changes that need to be introduced such as the role of the regulator, the functionality of dealing with convergence issues, a higher relevance of competition issues. Another aspect to consider would be the relation between sectoral regulation and competition law.
- **Article 10.9** refers to technical standards. It is recommended that references to the international standards which may overrule the national/regional developments shall be added.
- **Article 10.10** on human resource development is important in sectors which are crucial for a country's development. Working in a regulated, competitive environment requires specialised know-how on all sides (incumbents, new entrants, policy makers, regulators etc.). The availability of local know-how in these areas is key to effective implementation of policies.
- **Article 10.11** relating international co-operation requires refinement of its wording and the addition of a new sub-paragraph, which deals with the common initiatives towards regional and continental harmonisation. This new sub-paragraph should cover collection and publication of market data to undertake benchmarking and the exchange of information for the purpose of planning, monitoring and evaluation of regulatory reform and policy implementation.

2.3 Broad evolutions proposed for the Telecommunications Policies for SADC

The objective has been to identify broad evolutions in light of the available information that was collected from benchmarking countries and other regional economic communities and to propose the resulting changes to the current policy document.

- The general objective of the revised ICT or converged policy should be reflected in the preamble. Furthermore, the policy document contains an *introduction* and a first part referring to *problems and objectives*. These two parts would also have to be substantially revised.
- Looking at the documents prepared in other regional economic communities, one can identify the following objectives and actions for the SADC countries: (a) an enabling policy, legal and regulatory framework; (b) fostering of research and development in ICTs; (c) supporting investment capacity of network and service providers; (d) managing technology challenges; (e) removal of barriers to entry to new market entrants and management of competition; (f) baselining the current knowledge basis and further development of skills in ICTs; (g) affordability of services for users; (h) universal access/service; (i) awareness of literacy of population and potential users as a factor impacting interest in technologies and potential usage; (j) human resources development (with the reservations mentioned above); (k) mainstreaming of gender and other empowerment issues to ensure inclusivity, internalisation,

participation and achievement of the right to communicate by all; (l) effective participation in regional and global e-governance; (m) creating an attractive business environment for a sustainable development of the ICT sector and (n) developing a policy framework for information (systems) security. Although all these items are not objectives in themselves, but partly also driving factors, a policy objective compilation of relevant issues comprising all these items would be helpful also for the SADC member states.

- Where the objectives are modified, the strategies for achieving the policy objectives need to be amended as well. The overall functions of the government, the policy responsibility as well as capacity building will need to be revised in light of the sector development. In the meantime many more detailed provisions have become relevant such as the role of the regulator to develop of a long term vision for the market in terms of allocation resources such as spectrum, the integration of issues of common relevance for the broadcasting in telecommunications sector and the resolution of disputes.
- Some of the regulatory issues contained in the check lists need to be expanded. Such additions should refer to the issues of investment, competition, interconnection, tariff policies, consultation and international participation. All these issues have gained in relevance of the last years. However, the appropriateness of checklists in such policy document should be discussed.
- Section 2.6 needs to address the issue of what the roles of the different players are and what the private sector is expected to perform.
- In part 3 of the policy document the issues that are addressed (from universal access and service to regional and international participation) all remain relevant and important for the future, however that some new issues have emerged which need to be addressed which are (1) access topics which go beyond current interconnection regulation, (2) number portability (3) rights of way, (4) dispute resolution mechanisms, (5) consumer protection and user rights, (6) data protection, (7) broadcasting issues in order to fulfil the goal of convergence.

It is proposed that these items are added to the list of principles in part 3 and furthermore that the items that are already listed there are updated.

2.4 Broad evolutions proposed for the Telecommunication Model Bill for SADC

The model bill has to be treated in a similar way to the ICT policy to align them. Therefore the following is proposed:

- **Part I:** The definitions need to encompass exhaustively all relevant terms that are used in the bill and which are used in the market today. Therefore, the list of definitions needs to be updated.
- **Part II:** It is important to ensure the independence of the regulatory authority and its accountability through the transparency of its processes and decisions. Therefore, the model bill should continue to give clear guidance to member states as to the criteria and processes to fulfil with respect to the nomination of independent decision makers and the financial autonomy of national regulatory authorities.
- **Part III:** An update will be necessary in order to reflect upon the items that have been updated in the SADC policies. In part 2 of the regional policy, issues like the role of government, the role of the regulator and thereby with specific details of its missions, its functions, the check-list of its activities, its structure, its composition are addressed. Changes implemented should also be reflected in part III of the Model Bill.

- **Part V:** In this part, dealing with the licensing of telecommunications service providers, it is proposed that changes are introduced in order to facilitate market entry and to contribute to a competitive market. Restrictions for market entry should be removed or at least loosened in order to allow market entry with a less strict regime (such as e.g. general authorisation, unified licensing or other forms) and thus to allow a new set of operators and service providers to enter the market. Where scarce resources are required (such as spectrum and partly also numbering and rights of way) certain rules and provisions may be necessary to organise market entry. Managed competition should remain possible.
- **Part VI:** The main point here is the duties of public telecommunications service providers. It is important to have a general list of rules and obligations that apply to operators and service providers that enter the market. A differentiation between different kinds of operators and service providers is missing. The original model bill lacks differentiation between companies with significant market power and others with usually new entrants among them. Companies with significant market power that have the possibility to influence market developments to a certain extent by their behaviour need to be regulated in a stricter sense by asymmetric regulation based on a finding of significant market power (SMP). Therefore, it is recommended to differentiate the provisions in this part.
- **Part VII:** This part deals with additional powers and responsibilities of the authority regarding equipment, standard and type approval and inspection. The section needs to be updated in light of international developments, especially work in standardisation bodies.
- **Part VIII:** The management of radio frequency spectrum requires greater strategic planning in order to develop a spectrum strategy and spectrum plans. Also the definition of standard procedures for the allocation of spectrum will be necessary. While the decision which allocation procedure to use should be left to the individual regulator guidelines should be developed for the authority on how to address such issues. This also should encompass procedures on how to consult with stakeholders.
- **Part IX:** The issue of access to and of use of public and private property is addressed in this part. This is the issue of rights of way which is not reflected in the policy document, but is covered in the model bill. It will have to be updated also in light of international developments.
- **Part X:** This part deals with offences, penalties and enforcements. With respect to this part, such provisions are standard elements of telecommunications bills around the world and need to be updated in light of technical and commercial developments.
- **Part XI:** Regarding the restructuring of the national operator this part should reflect market developments since 1998.

These proposals and suggestions were presented and discussed at the SADC technical meeting of Sub-Sectoral Committee on Communications, ICT and Postal held in Johannesburg from 8 to 10 March 2010. They will be observed and integrated into a full report on broad evolutions and specific changes and furthermore be detailed in drafts of

- the new SADC ICT Convergence Policy,
- the revised article 10 of the TCM protocol,
- the revised SADC Regional ICT Policy and
- the revised SADC ICT Model Bill.

summary

These draft documents shall be presented for finalisation and validation at a workshop with policy makers and regulators to be held at the beginning of April to present final versions for adoption at the next SADC ICT Ministerial Meeting in Angola from 10 to 13 May 2010.

Report

introduction

The SADC Ministers responsible for Telecommunication, Postal and ICT decided at their last meeting in Swakopmund, Namibia, held from 23 to 26 June 2009 to use the joint ITU and European Commission project supporting “Harmonization of ICT Policies in Sub-Sahara Africa” (HIPSSA) to implement the policy and regulatory reforms identified for the region.

The SADC Secretariat and the HIPSSA Project Team launched the first activity, the review and update of “SADC ICT Policy and Legal Framework” and hired a consulting team to undertake firstly the assessment of SADC member states’ most recent national ICT policies and legislations. The consultants who were selected to be part of this team are Alice Karonga from AKODAC Consultancy Services (Zimbabwe), Alison Gillwald from Research ICT Africa (South Africa) and Ernst-Olav Rhule from SBR Juconomy Consulting AG (Germany).

At the SADC Technical Meeting held in Johannesburg, Republic of South Africa, from 8 to 10 March 2010, the consultants’ team presented the country profiles, which were reviewed, discussed and validated by represented Member States. After incorporation of all feedback from the comprehensive questionnaires sent to the member states in order to establish the status of reform in their countries, 11 of the 13 currently active members will have been fully captured. As an output of the assessment, the consultants identified gaps in some countries where regional policy objectives were not yet addressed and further highlighted best practices from the region to fill these gaps.

Based on the regional assessment as well as on continental and international benchmarks, the consultants proposed changes to the existing “SADC Telecommunications Policy and Legal Framework” including (i) the “SADC Protocol on Transport, Communication and Meteorology” (hereafter Protocol on TCM), (ii) the “Telecommunication Policy in SADC” and the (iii) “Telecommunication Bill Model for SADC”, adopted more than ten years ago.

The consultants captured the challenges and opportunities of convergence between the historically distinct platforms of telecommunications and broadcasting with information technology that have resulted in the plethora of Information Communication Technologies (ICTs). The broad evolutions that this sector is currently undergoing is discussed in the second part of their final report, which presents a wider perspective on the changes required to update the regional “ICT Policy and Legal Framework” and align it with technological and economic trends.

In this perspective, the revised framework will also comprise a new “SADC Policy Framework on Convergence”, providing Member States with clear indications in how to address the challenges of convergence and harness the potential developmental opportunities that emerge with the transformation of the sector.

Changes to the chapter 10 of the Protocol on TCM dedicated until now to telecommunications only, will be prepared under two formats. Necessary amendments to the Protocol, specifically Chapter 10 on telecommunications, to update it will be identified so they are ready when changes to all parts of the Protocol including those related to the others sectors, namely transport and meteorology, are submitted to the Ministers of Justice and the

SADC Council – as required for its adoption. The SADC Technical Meeting requested the SADC Secretariat to check the appropriateness of further submitting to the next Ministerial Meeting the amendments to the chapter 11 related to Postal, prepared in 2006-2007 with the assistance of UPU and to co-ordinate the changes between these two chapters where necessary. In addition to this high level process which may take some time to complete, the SADC Secretariat requested and the technical committee supported the preparation of a comprehensive annex encompassing ICT at large which could be swiftly added to the current Protocol, in parallel to the protocol amendments.

Further, the SADC Technical Meeting instructed the consultants to undertake an ambitious, full rewrite of the existing “Telecommunications Policies in SADC” into a contemporary and comprehensive “SADC ICT Policy”, instead of merely amending the existing one. This rewrite shall be undertaken through the development of a new “SADC Policy Framework on Convergence” and the necessary changes to be incorporated in the “Protocol on TCM” identified. Likewise the revisions to the ICT Model Bill to align it with the convergence policy will be proposed.

Finally, the issues of the sessions dedicated to the Review and Update of SADC ICT Policy and Legal Framework, were captured in a briefing note to be appended as an executive summary to the extensive report comprising (i) the assessment of national ICT policy and legal frameworks and its conclusions, as well as (ii) the broad evolutions of the sectors to addressed in the new SADC Policy Framework on Convergence, and changes to other existing documents.

This report will be used by the consultants to draft the revised framework and submit draft documents. CRASA was asked if they could accommodate a presentation of these outcomes and potentially share the draft documents. Finally, the draft documents will be presented for amendments and validation during a joint workshop of policy makers and regulators called by SADC and CRASA Secretariats for the validated drafts to be submitted to Ministers for approval at their next meeting.

> ASSESSMENT REPORT ON SADC MEMBER STATES ICT POLICY AND REGULATORY FRAMEWORKS

The SADC Members States have taken great strides within their various countries to be part of the information society through embracing the convergence ushered in by the use of Information and Communication Technologies (ICT). The Member States are not blind to the challenges that continue to dog their developmental efforts such as lack of adequate infrastructure, lack of financial resources, the digital exclusion of vulnerable groups such as women, youth and the disabled. They realise the need to continue exerting effort in their endeavours, empower their people and develop their economies through the utilisation of ICTs. The fundamental stepping-stone to achieve economic growth and empowerment is the development of policy, legal and regulatory tools that meet the developmental needs of their countries while being transparent and conducive to investment.

Member States view ICTs as a panacea for economic growth, eradication of poverty, societal empowerment, unemployment reduction and a measure of reducing the digital divide between the urban and rural communities and between countries of the region. To meet these goals however, the next generation of policy, regulation and networks that support the convergence between telecommunications, broadcasting and the internet, will need to be.

This assessment report was developed through desk research. More work still needs to be done through interviews with member states, regulatory authorities and other stakeholders in the various countries so that we gather detailed and verified data on the policies in place, the legal and regulatory implementation plans, strategies and challenges being encountered and the work and activities of regional bodies are impacting on the member states.

The assessment report starts by looking at those countries which are viewed as the policy, legal and regulatory front-runners and ends by looking at those countries that are making an effort to catch up. It recommends best practices and looks at challenges that seem to militate against accelerated development.

1 The Republic of Angola

1.1 Legal and Regulatory Framework

The Basic Telecommunications Law of Angola was adopted in 2001. The law acknowledges that due to the evolution in technology public enterprises on their own are not capable of providing the diversity of services that is demanded by consumers. The main objective of the new legislative approach as adopted in 2001 is to create a legal framework that allows and guarantees the expansion and modernisation of the national telecommunications system and the provision of quality telecommunications services at affordable prices.

The specific objectives to be achieved are as follows:

- Promote public and private investment;
- Guarantee competition among service providers;
- Eliminate exclusive or special rights to service providers;
- Promote competition on the basis of transparent rules for licensing of services;
- Determine universal service obligations and extending basic services to rural and remote communities;
- Promote the development of new services and networks using the best;
- Avail technologies that facilitate cost efficient service provision;
- Ensure efficient use of the frequency spectrum and numbering resources; and

- Protect consumer rights.

1.2 Responsibilities of the Ministry

The Department of Telecommunications in the Ministry of Posts and Telecommunications is charged with the responsibility to supervise and monitor the telecommunications sector. The Department establishes general policies and plans and ensures sectoral compliance with the policies.

Its other responsibilities includes managing the radio-frequency spectrum, awarding licenses, examining the level of competition, approving and supervising the fees payable by operators and rates and tariffs charged to consumers. The Department is also the Telecommunications Authority to which the Regulatory Agency reports to.

1.3 The Regulatory Agency

The Regulatory Agency in Angola is known as Angola Institute of Communications (INACOM). INACOM's responsibilities are defined as:

- Managing and supervising the radio-frequency spectrum and the numbering plan,
- Licensing operators;
- Establishing regulations;
- Determining procedures and conditions of interconnections;
- Establishing procedures for the approval of equipment;
- Enforcing universal access into rural and remote areas through levying licensed operators; and
- Establishing the provision for interception of telecommunications services.\

The Agency is also mandated to regulate telecommunications and broadcasting services and all ICT related services as well as promote respect for the privacy of telecommunications users and ensure effective competition in all areas of the country. As indicated above the Agency reports to the Telecommunications Authority which is effectively the Department of Telecommunications and the Head of the Authority is the Minister for Posts and Telecommunications. Such a set up has the effect of compromising the Independence of the Regulatory Agency as there is no clear- cut demarcation between the roles of the Ministry and the Agency. There is high risk of regulatory capture by Government.

The law also promotes human resource development and that responsibility is directed at Department of Telecommunications.

The law creates the National Telecommunications Council (NTC) which is a Government consultative body charged with the responsibility for the development of national policies, regulations and deployment of telecommunications services. The introduction of the NTC means that policy development is handled at two levels, by the NTC and the Department of Telecommunications. The Regulatory Agency reports directly to the Department of Telecommunications from which it derives policy and regulatory direction.

In order to ensure effective deployment of telecommunications the law provides for the inclusion of the deployment of telecommunications infrastructure in any plans for buildings, roads, railway and urban centres development. It provides for a consultative process within the Ministries of Telecommunications, Public Works, Urbanisation and Housing.

The basic telecommunications network is managed by the incumbent operator but all licensed operators have equal access to it, thus the law prescribes that it shall operate as an

open network. This provision effectively entrenches the monopoly of the incumbent operator who has the right to operate the network while the other operators have the right of access to that network. This also has the effect of slowing down network development because if the incumbent operator fails to secure the necessary resources to deploy the network every other operator is caught up in the bottleneck.

1.4 Universal Access / Service

Universal service obligations are imposed on the incumbent operator by operation of law and the Department of Telecommunications regulates the Universal Service obligations. The law also establishes the Universal Service Fund and licensed operators are obligated to contribute a prescribed levy into the Fund on terms provided under a Charter issued by the Department of Telecommunications.

1.5 Licensing

Foreign companies are prohibited from holding a majority stake in any telecommunications licensee and cross ownership of licensed operations is limited to 10%.

Interconnection terms and conditions are subject to commercial arrangements. The Regulatory Agency however issues regulations on the process and procedures for interconnection.

The Department of Telecommunications is empowered to intervene in the operations of a licensed operator wherever it is considered that;

- There is unjustified service stoppage;
- A licensee has failed to meet universal service obligations targets;
- A licensee unjustly refuses to offer interconnection;
- There is insufficient or inadequate service delivery;
- The licensee has seriously violated the license or concession terms and conditions.

In so far as rates or tariffs are concerned the Agency is empowered to regulate the segment of the market where competitive forces are not effective. In determining rates in those segments of the market where there is not sufficient competition, the Agency takes into account the service cost margin and allows for fair profit margin. Cross-subsidisation among services offered is prohibited.

Licenses are issued under the following categories:

- Radio frequency spectrum licence public;
- Public telecommunications services;
- Private telecommunications services.

1.6 Reform Process

Since the enactment of the legislation in 2001 four operators were awarded licences to offer fixed network services, that is Mercury Telecommunications Services (MS Telecom), MundoStatel, Nexus and Wezacom. Only one operator Wezacom failed to roll out its network as it failed to raise the required investment finance.

There are two mobile operators, Unitel which was launched in 2001 and Movitel, a subsidiary of Angola Telcom, and it also offers data services. Four companies Angola

Telcom, MS Telcom, Snet and Multitel operate the Angola Internet Exchange Point which was launched in 2006.

By 2007 the mobile subscriber base was 3.75 million thus giving a mobile tele-density of 20-25%. According to the information on INACOM's website there were 13570 internet subscribers by 2004.

Since the promulgation of the law in 2001 the following regulations have been put in place according to information from INACOM's website:

- Regulations on access for the supply of telecommunications services establish the rules for management and operation of infrastructure and provision of services to the public;
- National Frequency Plan was published in 2001 and is available on INACOM's website;
- New numbering plan was established and published in 2005 to take account of the liberalised telecommunications environment and competition;
- Decree on the General Regulation of Interconnection Networks and Telecommunications services was published in 2003;
- Regulations on pricing of the Public Telecoms Services Decree were enacted in 2003.

Angola has made tremendous strides in the development of its legal and regulatory framework considering its political history in the last ten years. However, more work still needs to be done to level the playing field for the operators and to strengthen regulatory independence.

2 The Republic of Botswana

2.1 Policy Framework

In 2007 the government adopted the National Information and Communications Technology (ICT) policy dubbed *Maitlamo*. The fundamental principles of the policy are to:

- Make valuable information relating to health, jobs and education easily accessible to the people;
- Ensure government information and services are provided on-line;
- Stimulate increased levels of e-commerce;
- Connect all schools and libraries to the internet;
- Increase ICT related education for both students and adults;
- Increase the number of computers and their usage in the homes;
- Provide internet access centres and training in rural villages;
- Provide all citizens with high speed affordable internet access.

The national vision on ICT aims at making the country a globally competitive, knowledge and information society where effective use of ICT is a means of ensuring an improvement in social, economic and cultural development. Therefore the goals of the policy are stated as the:

- Creation of an enabling environment for the growth of an ICT industry;
- Provision of universal service and access through information and communications facilities ;

- Making Botswana the regional ICT hub in order to make the country's services globally competitive.

In order to kick start the policy implementation process a national e-readiness assessment has been undertaken, the ICT legal framework has been re-defined which provides for the review of a spectrum of legislative instruments and various programmes are to be developed to implement the activities in the various sectors identified. These programmes relate to:

- Connecting communities;
- Ensuring government services are available on-line;
- Making e-learning programmes part of the education system;
- Fostering e-health programmes within the health system;
- Developing e-commerce and e-business to foster economic growth and job creation;
- Deploying robust infrastructure that ensures security of communication and data;
- Reviewing legal and policy instruments to make them compliant and supportive of the diffusion of ICT.

The implementation for the policy is to be effected through an Information Age Council.

2.2 Sector Reform

The Minister responsible for Communications made additional liberalisation pronouncements in June 2006. The liberalisation called for the lifting of the restriction on the provision of VoIP, self provision of transmission links by mobile operators, allowing the existing fixed line and cellular operators to provide all telecommunications services irrespective of whether the service is transmitted wirelessly or on a wire, and the liberalisation of the international voice gateway. At the same time, the government also made a decision to privatise BTC, and engaged the International Finance Corporation (IFC) in October 2007 to act as transaction advisers.

2.3 Legal and Regulatory Framework

The following legislative instruments are in place:

- The Telecommunications Act, 1996;
- Cybercrime and Computer Related Crimes Act, 2007.

The Telecommunications Act, 1996 provided for the creation of the Botswana Telecommunications Authority (BTA) whose powers and functions are to:

- Supervise and promote the provision of efficient telecommunications services.
- Promote the interests of the public and consumers
- Promote and maintain competition in the sector and ensure a level playing field for all sector operators.
- Set tariffs principles to be used by operators in the provision of services.
- Licence operations of telecommunications services and settle disputes between operators as well as manage the frequency spectrum and numbering plan and set licence fees.

The Board of the Regulatory Authority consists of five Board Members. The Telecommunications Act, 1996 provided that the Chairman of the Authority was also the Chief Executive Officer. However, this situation was amended by the Telecommunications Act, 2004 which separated the roles of the Chairman and Chief Executive Officer to ensure

transparency and accessibility as well as separation of roles between the board and management and comply with good corporate governance practices.

Originally the Board was composed of persons nominated by Ministry of Works, Transport and Communications, Finance, Commerce, one person from business community and one person from the consumer of telecommunications services. However this position changed when the Act was amended and appointment to the Board is now based on qualifications, expertise and experience of the individual members, in the fields of information and communication technologies, law, consumer protection, financial accounting economics or business management. This approach ensures that Board members have the skills and competency to steer the sector and it avoids board appointments on the basis of pure patronage or politics. Board appointments are done by the Minister. The Minister does not consult either Parliaments of the President, as is the case with other legislative frameworks in the region. Such a situation may result in a regulatory environment of patronage, as the Minister does not account for his/her actions in the appointment of the Board.

While the Authority under the 1996 Act had the power to determine licence fees under section 10(i)(b) these powers now vest in the Minister by virtue of the amendment act 2004. In the 1996 Act, the Authority also had power to make regulations, however these powers now vest in the Minister by virtue of the 2004 amendments. These amendments have raised concerns from the other regulatory bodies within the region as they see it as a precedent setting step for the regional Governments to usurp the powers of the regulatory Authorities. Furthermore under the Amendment Act, the Authority is now required to seek the approval of the Minister on all decisions made in relation to applications for fixed line telephony or cellular telephony licences.

Previously under section 30 of the 1996 Act, the Authority in considering whether to grant a licence or not was guided by three principles which are:

- Whether the grant or renewal of a licence will facilitate the performance of the general functions of the Authority.
- Whether the grant or renewal of the licence would bring any benefit to the national economy and consumers.
- Whether the applicant can provide the service in a safe and sustainable manner.

This again has been raised as a concern by regional regulators who see the move as creating uncertainty in the regulatory environment, as the regulators' decision can be adjusted by the Minister on fundamental service market segments.

In terms of the Telecommunications Amendment Act, 2004 the Authority is required to submit to the Minister five year strategic plans which outline the goals of the Authority, objectives and budgets. While this is a commendable requirement since it assists the Government to keep track of its policy plans, it assumes that the responsible Ministry has the requisite human resource base to follow up on the strategic plans and raise alarm when there are deviations. Unfortunately experience shows that in most countries the Ministries have even greater human resource capacity challenges than regulators, due to the continuous movement of staff from Government to the private sector. The majority of Government Ministries in the region lack capacity in policy development and implementation.

2.4 Financing

The funds for the operations of the Authority are derived from licence fees, any fees imposed on operators as well as funds appropriated to it by Parliament.

2.5 Licensing Framework

The services that can be licensed are cellular telephony services, paging services, pocket switched data services and voice over internet protocol services. Two types of licences can be issued, a service licence and or a system licence, in terms of sections 27 and 28 of the Telecommunications Act as amended. This assessment suggests that there is a need for the licensing regime to reflect the realities of convergence on the sector by issuing technology and service neutral horizontal licenses. Some of the licences being prescribed have become value added services due to the impact of convergence.

The regulatory approach on pricing and tariffs is that prices should reflect a return on investment and price regulation is imposed on regulated services only. These regulated services are:

- National long distance services
- Cellular telephone services
- Local network services

Interconnection issues are dealt with under the Guidelines on Interconnection for Botswana Telecommunications Sector that were published in August 2003. The guidelines provide for fair and non-discriminatory arrangements for dealing with interconnection related matters. In terms of the guidelines the fundamental interconnection principles to be applied by operators when negotiating interconnection agreements are transparency, non-discrimination and cost orientation of charges. All charges for interconnection are expected to reflect the underlying cost of providing interconnection facilities and services and licensed operators are required to provide the authority with detailed cost accounting systems. Operators are encouraged to apply the Long Run Average Incremental Costing methodology to calculate rates on interconnection.

Operators designated as dominant service providers are obliged to provide interconnection without showing any preferential treatment. In terms of the guidelines, operators who are obliged to offer interconnection are required to publish a Reference Interconnection Offer (RIO) which details of the terms and conditions upon which interconnection will be provided including interconnection points, technical interconnection rules to be applied and the unbundled network components. The guidelines clearly state that an operator requiring interconnection, should pay for those network components they require to provide their service and nothing more.

All interconnection agreements are to be negotiated and completed within 90 days and any dispute arising is dealt with by the Authority. An appeal lies to the High Court where a party is aggrieved by the decision of the Authority.

In terms of the policy document, the incumbent operator is required to maintain accounting separation for specific identified services which it offers in competition with other new market entrants and the principle of accounting separation was to be enforced through a performance agreement between the Government and the incumbent operator. Accounting separation is to be effected in three areas:

- network operations maintenance,
- services that are expected to remain sub-economic for a considerable time
- other services

In view of the complexities and new services being ushered in by convergence, it might not be appropriate to maintain accounting separation in these three identified areas alone. Therefore there is an urgent need for the Government and the regulator to start a process of revising the current policy, legal and regulatory framework so that it conforms to the convergence of trends.

3 Democratic Republic of Congo

3.1 Policy Framework

The Democratic Republic of Congo (DRC) under the leadership of the Ministry of Posts, Telephones and Telecommunications (MPTT) has adopted in 2009 its national ICT sector policy.

To take full advantage of the opportunity provided by changes in the sector, the Government of the DRC has defined a strategy that will work to maximize the benefits for the community as part of a policy sustainable development.

Overall, this sectoral policy aims to have the DRC enter the global information society. The Government expects a significant increase in the contribution of Information Technology and Communication (ICT) to economic development and social development, benefiting traders, utilities and households. This overall objective will result in the following specific objectives:

- Improve the accessibility of telecommunications services
- Create a national infrastructure and international broadband
- Ensure universal access to information technology across the territory
- Promote a competitive telecommunications market, coherent and innovative
- Improve the contribution of new information technologies (ICTs) to economic and social development.

To achieve these objectives the Government of the DRC has defined sectoral policy based on major thrusts:

- Adapt and complete the legal and regulatory sectors to promote the development of a healthy and fair competition for the benefit of users and to optimize network interconnection and access to key infrastructure and capacity;
- Clarify the respective roles of sector institutions and make sector regulation more efficient, particularly in the regulation of access and interconnection and management of radio frequencies;
- Adapt the system of networks and telecommunications services, to eliminate unequal treatment and related anomalies are not taken into account the convergence of services;
- Strengthen the regulatory function to ensure the implementation of laws and regulations relating to competition, interconnection and access;
- Define and implement a national plan of allocation and management procedures for radio frequencies to optimize the use of frequency resources, eliminate harmful interference and to stop fraudulent use;
- Streamline and clarify the taxation of the telecommunications industry;
- Develop a plan for implementation of universal access with the objective of achieving the objectives of opening up;
- Restructure public sector operators (and OCPT RENATELSAT) in the context of public-private partnerships to ensure their consolidation and sustainability;
- Create a national network for broadband network operators and service providers to develop their offer on the whole extent of territory;
- Establish international broadband access to significantly reduce the cost of access to the Internet and ICT;
- Establish the institutional framework of ICT;

part 1

- Gradually computerize all government services;
- Mentor businesses and people in the appropriation of ICT

3.2 Legal and Regulatory Framework

The Posts and Telecommunications Regulatory Authority for the Democratic Republic of Congo was established in 2002 and is known as the Authority for Regulation of Post and Telecommunications of Congo (ARPTC).

The authority's mandate includes:

- Ensuring that operators comply with laws, regulations and conventions established for the sector;
- Defining and adopting guidelines that comply with the policy and legal framework;
- Issuing licences, suspending licences, redrawing authorisations, preparing licensing specifications and related fees for licensees;
- Defining the principles under which licensed operators are to interconnect with each other as well as the pricing methods for services;
- Managing and controlling the frequency spectrum as well as the numbering plan;
- Ensuring that consumer interests are protected; ensuring the existence of effective competition in the sector;
- Ensuring that universal service funds are utilized for delivery of universal services;
- Ensuring that services provided through the medium information and communications technologies reach the intended beneficiaries, that is, the citizens of the country.

The authority has powers to arbitrate in disputes arising between licenced operators and those powers have to be exercised in a transparent, impartial, objective, non-discriminatory, fair and just manner.

Any party aggrieved by the decision of the authority has the right to appeal to the Supreme Court.

3.3 Structure of the Authority

The affairs of the regulatory authority are managed by a College of seven members. The President and Vice-President of the College are appointed by the President of the country and are sworn into office by the Supreme Court while three members are nominated by the Minister and two others by Parliament. The appointments are based on the members' expertise, knowledge and competence in technical regulation, economic, legal, postal and telecommunications fields. The College exercises the management functions of the authority.

The law guarantees the authority of its independence in that the College reports directly to the President of the country. Its income is obtained from administrative services offered, licence fees and taxes levied on services, grants and loans.

4 The Kingdom of Lesotho

4.1 Policy Framework

The Communications Policy of Lesotho was adopted in 2008 thereby replacing the Telecommunications Policy of 1999. The Policy was also built on the back of the broad Information and Communications Technology Policy adopted in 2005.

The policy document establishes the framework for the convergence of telecommunications, broadcasting and postal sectors and it aims to achieve the following goals:

- Increase reforms and strengthening the regulatory capacity of the Lesotho Communications Authority (LCA formerly LTA);
- Reflect and promote the convergence of services and networks based on the Internet Protocol (IP);
- Foster universal access at affordable prices;
- Promote a competitive communications market through infrastructure sharing and co-operation in the development of infrastructure.

The policy framework commits to the letter and spirit of the WTO principles in the Reference Paper on Telecommunications in that the Government will put in place a legal and regulatory framework that ensures:

- Prevention of anti-competitive practices by operators with significant market power;
- Adoption of procedures that facilitate non-discriminatory interconnection at cost-oriented pricing;
- Definition of operators with significant market power and regulation to be directed at such operators.
- Regulatory independence of the Authority;
- Objective, timely and transparent procedures for the allocation of source resources;
- Adoption of transparent, non-discriminatory and competitively neutral universal service regime.

That licensing criteria and terms of individual licenses are publicly available.

The role of the Ministry is defined as that of establishing basic policy for the converged environment and ensuring that the Authority acts are consistent with the law and policy. The Minister is barred from exercising influence over initial decisions on the granting of a licence, approval of inter-connection agreements, on operational and technical matters, or the adoption of standards. He acts as the first level of reviews on regulatory decisions.

The Authority will be overseen by a Board of Directors composed of six members. The Board is nominated by the Minister with the approval of the House of Assembly. The removal of a Board member from office is by a 2/3 majority of the Members of the National Assembly.

4.2 Regulatory Decisions

In the event that a party is aggrieved by the decision of the Authority that party may seek reconsideration of the decision where the decision remains unchanged, the party seeks a review by the Minister. The Minister's powers of review are limited to situations where it is concluded that the Authority's decision is:

- Inconsistent with the law or policy;
- Procedurally improper;
- Not supported by substantial evidence;
- Arbitrary and capricious.

Where a party is aggrieved by the decision of the Minister the party shall seek judicial review.

4.3 Functions of the Authority

The Authority's functions are provided as:

- Protection of consumers;
- Promotion and preservation of competition, where ever feasible;
- Transparent and reasoned decision making on a timely basis;
- Provision of technology neutral licenses;
- Reduction of regulatory burden by focusing licensing procedures on operators with significant market power and eliminating unnecessary regulation;
- Effective enforcement of regulations, through the adoption of proportionate, transparent, non-discriminatory and consistent enforcement procedures;
- Allocation and assignment of scarce resources;
- Oversight of interconnection and facilities access agreements between operators in the wholesale market and regulation of wholesale rates where appropriate;
- Oversight over the establishment and administration of the Universal Service Fund.

The policy provides that the Communications Act being drafted shall replace the current Telecommunications Act and the Communications Act should provide for:

- Unbundling of networks and facilities for interconnection and cost oriented interconnection rates;
- Significant market power operator to allow physical interconnection at any technically feasible location at forward looking cost based prices;
- Determination of methodologies for setting interconnection rates and cost based rates;
- Price cap regulation of tariffs;
- Specification of the interconnection wholesale services that the significant market power operator must provide;
- Retail tariffs regulation imposed on designated operators using only the price cap model;
- Market liberalisation where new operators are allowed to enter the voice services market and offering new services using any technology.

The policy pronounces the establishment of four categories of broadcasting and these are;

- Public service broadcasting;
- Community broadcasting;
- Private broadcasting;
- Commercial broadcasting.

It is expected that the Communications Act will also provide for content regulation and will seek to promote convergence in broadcasting by allowing deployment of IP based content services such as IPTV.

4.4 Legal and Regulatory Framework

Following the adoption of the ICT policy in 2008, the Government is working on the Communications Act to address the legal issues proposed in the policy framework. Until the Communications Act is adopted, which will govern and define the legal and regulatory

framework for the converged environment and regulation of ICTs, the present assessment report on the legal and regulatory framework will focus on the Telecommunications Act 1999 as it applies until repealed by the new law under consideration.

The Act provides for the partial liberalisation of the Telecommunications sector, the restructuring of Lesotho POSTS and Telecommunications Company, the establishment of the Lesotho Telecommunications Authority (LTA). It also promotes the introduction of competition by attracting new players and the promotion of networks expansion to increase penetration and improve quality of service.

4.5 Reform Process.

The telecommunications sector was partially liberalised in 1999. Lesotho Telecommunications Company was granted exclusivity to provide basic telecommunications services for a period of approximately five years. However that exclusivity has since been extinguished through the adoption of the Communications Policy 2008. The 1999 Act allowed competition in the provision of the following services;

- Mobile cellular;
- Radio paging;
- GMPCS;
- Data communication services including internet, email;
- Customer premises equipment importation, manufacture, distribution installation and maintenance.

4.6 Establishment of Lesotho Telecommunications Authority (LTA)

The Act established the Lesotho Telecommunications Authority (LTA) who is empowered to:

- Regulate telecommunications and information technology;
- Regulate transmission of broadcasting services excluding content;
- Manage, control and allocate radio frequency spectrum;
- Stimulate investment in the public info-communications networks;
- Ensure a level playing field where competition was permitted as prescribed by policy;
- Promote development of national human resources for the sector;
- Provide a wide-range of info-communications services to stimulate and support economic growth;
- Contribute to the development of social goals of info-communication policy including the provision of universal services and universal access.

The functions of the Authority as prescribed by the Telecommunications Act 1999 include:

- Licensing of operators for services as well as spectrum usage;
- Management of the scarce resources;
- Implementation of the Universal Services / Access through the establishment of the Universal Service Fund;
- Monitoring of performances of the service providers;
- Promotion of fair competition;

- Determination of interconnection and provision of guidelines, facilitation of interconnection regulations, approval of interconnection agreements and regulation of tariffs.

It would be valuable to ascertain during the interview process how the Universal Service Fund has been functioning and to what extent it has achieved its intended objectives.

4.7 Institutional Structure

The Authority is overseen by a Board of five members, on of whom is a full time Chief Executive Officer. This structure has been removed in the new policy document and the Chairman and Chief Executive Officer's post are now separate. The new approach upholds the principles of corporate governance and accountability. Board members are appointed by the Minister on recommendations of an Appointments committee. The Appointments Committee is composed of representatives from the Ministers of Communication, Finance and Trade and the Attorney General's Chambers, but with no non-state representation.

Members are appointed on the basis of their skills, knowledge and experience in the fields of economics, accountancy, info-communications technologies, engineering, public policy, business practice, finance and law.

4.8 Finances

The finances of the Authority are derived from:

- A percentage contribution of annual revenue from licensed operators;
- License fees;
- Spectrum usage fees;
- Donations and loans;
- Government budget allocation.

5 The Republic of Madagascar

The Republic of Madagascar was suspended by the SADC Summit at its 29th meeting held in Kinshasa, Democratic Republic of Congo, in September 2009. On that basis all technical assistance and cooperation between the Republic and the SADC Secretariat was equally suspended. Therefore no work was undertaken with regards to the assessment report in that country.

6 The Republic of Malawi

6.1 Policy Framework

The Information and Communications Technologies policy framework was adopted in July 2006. The Ministry charged with the responsibility to lead the implementation process is the Ministry of Information and Communications Technologies. The policy aims at developing the ICT industry, promoting the development and use of ICT's in all sectors for the greatest impact in socio-economic development. It rests on seven key pillars in Malawi Economic Growth Strategy and these are:

- Strategic leadership;
- Human capital development;
- Governance;

part 1

- ICT growth;
- Infrastructure development;
- Community access to ICT;
- Responsive ICT legal and institutional regulatory framework.

The purpose of policy is to provide a framework for deployment, exploitation and development of ICT's to support the process of mobilizing, allocating and utilizing resources in order to realize institutional community, sectional and national development.

From the outset the policy recognizes that the country faces a number of challenges that need to be taken into account in order to achieve sustainable development processes and outcomes and promote the development and use of ICT. Such challenges affect and can derail the implementation of policies and strategies as well as intended outcomes the major challenges identified relate to:

- Under developed telecommunications infrastructure especially in the rural area;
- Outdated laws to support ICT development;
- Inadequate institutional capacity at national, sectional and organizational level;
- Under developed ICT private sector;
- Fragmented administrative and political leadership in the ICT sector;
- Inadequate resources and poor resource allocation.
- Over-dependence on donor aid with the risk that there is disconnection between the recipient nation's priorities and the donor objectives;
- Lack of adequate electricity power supply.

The main objectives of the policy document are to:

- Promote support for the acquisition, development, utilization and exploitation of ICT's within the economy and society,
- Develop a competitive local ICT industry;
- Develop an ICT literate nation;
- Develop a competitive high value-added service sector through the utilization of ICT;
- Establish an effective, focused and visionary leadership that will harness ICT initiatives.

The policy framework advocates for mechanisms that will ensure the protection of the public and general citizen from the undesirable impact of pornographic materials, cyber crimes and digital fraud. The development and implementation of e-strategies such as e-government, e-health, e-education, e-agriculture, e-commerce applications are highlighted. Another important aspect recognized by the policy document is the need to prevent the damping of sub-standard ICT products in the market as well as the need to promote and facilitate domestic and foreign private sector investments in infrastructure development through the provisions of investment incentives.

6.2 Legal and Regulatory Framework

The legal and regulatory framework is governed by the Malawi Communications Act 1998, which provides for the establishment of the regulation of telecommunications, posts and broadcasting under the Malawi Communications Regulatory Authority (MACRA). The Act further provides for:

- Restructuring of the Malawi Posts and Telecommunications Corporation by separating postal functions from telecommunications operations;
- Privatization of the telecommunications business;
- Regulatory convergence of telecommunications and broadcasting.

The Communications Act as promulgated in 1998 was in some aspects forward looking as it addressed the concept of convergence between telecommunications and broadcasting even though but it fell short in addressing the diffusion of the same services through the medium of the internet.

6.3 Institutional Framework

The Act provides that the Authority shall be an independent body corporate. The members of the Board of Directors are appointed by the President, with the Secretary to the President and Cabinet and the Secretary for Information sitting as ex-officio members. Of concern is the fact that the appointment of these two persons to all intents and purposes might compromise the independence of the Authority. There is no rationale to be derived from the policy documents or the letter and spirit of legislation as to why these two offices should be part of the Authority. The independence of the Authority could best be preserved if the Board composition would reflect the provisions of section 6(2)(b) which states that persons to be appointed to the Authority as Board members should be persons who possess qualifications, expertise and experience in the fields of posts, telecommunications, broadcasting, law, economics, business, finance, frequency planning, public administration and public affairs.

The Act further prohibits the appointment of any person who is a Member of Parliament, a Minister or Deputy Minister, a member of a political party, and this further entrenches the independence of the Authority.

The technology and services neutral licences are issued in terms of section 18(1) which provides for the issuance of two types of licenses, (a) a general license and (b) an individual license. As in any other developing economy where the communications markets are still immature licensing conditions are still detailed. The regulation of the sector is focused on those operators who are deemed to have dominant market power. The Authority has the power to review any interconnection agreements entered into by operators and has the power to make a determination on such issues. The Authority is empowered to issue interconnection guidelines which act as the basis upon which operators negotiate interconnection agreements.

Aggrieved parties appeal to the High Court where any party is aggrieved by the decision of the Authority.

Broadcasting licensees are expected to adhere to a Code of Conduct which to all intents and purposes guarantees them freedom to broadcast freely, but ensuring that they protect the public from indecent or obscene or offensive materials.

6.4 Finances

The operations of the Authority are financed from its internal operations such as license fees, levies, fines, donations, loans or funds appropriated by the Parliament to the Authority.

6.5 Sector Reforms

The Communications Act provides for the liberalization of the telecommunications sector in that, under section 15(b), the Authority is empowered to open entry into the provision of public telecommunications services.

6.6 Comments

The telecommunications sector in Malawi has not grown at a fast pace despite the progressive legal and regulatory framework put in place in 1998. A thorough investigative process has to be put in place to understand the challenges that were encountered which resulted in the sector taking a sluggish growth. It may appear that developing countries take up ambitious programmes that they cannot fulfil given the inherent challenges such as lack of financial and human resources, competing social obligations on Government, the reluctance by Government to let go incumbent operators for what is often cited as security reasons. Many countries in the developing economies regard telecommunications as strategic security institutions which should remain in the hands of Government. Most probably answers to these questions can be found during the interview process. From these answers the Regional bodies may develop appropriate strategies to strike a balance on the need to expand telecommunications through private sector financing and national security concerns.

There is an urgent need to review the 1998 legislative framework so that it is aligned with the new policy framework.

7 The Republic of Mauritius

7.1 Policy Framework

Mauritius has been at the forefront of the telecommunications reform process within SADC. The Minister of Information and Communications Technologies is responsible for developing policy and the promulgation of relevant regulations on the advice of the Authority.

The current National ICT Policy has been designed to cover the period 2007-11. Government's vision is to make ICTs the fifth pillar of the economy and to transform Mauritius into a regional ICT hub. Other pillars of economic activity are manufacturing, sugar, tourism and financial services. Objectives of the National ICT policy are to:

- Provide a framework that will enable ICT to contribute towards achieving national development.
- Develop the export markets for ICT services
- Position Mauritius as a regional ICT centre of excellence and as a knowledge hub.
- Ensure that ICT infrastructure and capacity are effectively utilized and are internationally competitive.
- Establish a trusted and secure information infrastructure and a culture of cyber security at all level, of society.
- Enhance the exploitation of ICTs across the economy for increased productivity and efficiency.

The Government emphasises that the development of a comprehensive framework for the ICT sector should always take into account the need to harmonise the legal and regulatory institutional framework with international norms, convergence in technologies and sciences and the promotion of increased uptake of ICT in the economy and society. The policy enumerates its main priorities as:

- Strengthening the legal and regulatory framework
- Developing ICT infrastructure
- Mainstreaming ICT in education
- Developing a culture of cyber security

- Accelerating e-governance
- Boosting ICT exports
- Harnessing ICTs for social development.

7.2 Legal and Regulatory Framework

The primary legislation that governs the ICT sector is the Information and Communications Technologies Act 2001. The purposes of the Act are to establish the Information and Communications Technologies Authority, the Information and Communications Technologies Advisory Council, the Information and Communications Technologies Tribunal. Steps to be taken to realise the Government vision are outlined in the National ICT Strategic Plan, a plan that pronounces the different programmes and projects to be initiated, include:

- Aligning the primary ICT legislation, the Electronic Communications Act, with international legislation such as the UNCITRAL convention of 2005.
- Changing to the Data Protection Act 2005 so that it is compliant with the European Union norms.
- Enacting of anti-spam legislation.
- Strengthening legislation and policy for the protection of children from the dangers of the internet.
- Developing fair, trusted and transparent regulatory regime.

The Data Protection Act, 2004, lays down the legal principles upon which data may be collected, stored and/or released for commercial or public interest or national security reasons. The act establishes the office of Data Protection whose primary responsibilities are;

- Ensure compliance with the Act and in regulations,
- Issue codes of practice or guidelines as the market is designated as a self-regulating market.
- Register and maintain a register of data controllers within and outside Mauritius.
- Exercise control on all data processing activities.
- Research and monitor developments in data processing and computer technology.
- Conduct investigations and complaints.

The law recognises eight principles that guide the protection of data and hence the protection of and safety of business, consumers and users of ICT services. These principles are;

- Personal data should be processed fairly and lawfully;
- Personal data should be obtained only for specified and lawful purposes;
- Personal data has to be adequate and the collection of that data should not exceed the purpose it is being obtained;
- Data should be accurate and be kept up to date;
- Data processed should be kept for a period necessary for the purpose it was collected;
- Data should be processed taking cognisance of the rights of the person whose data is to be collected;
- Adequate security measures have to be put in place to ensure that personal data is not processed illegally or lost or destroyed accidentally;

part 1

- Transfer of personal data to third countries where similar laws that protect personal data are in place.

The Computer Misuse and Cyber-Crime Act 2003 provides for the criminalisation of acts or conduct or activities committed through computer systems and the following acts, conduct or activities are considered crimes under the Act;

- Unauthorized access to computer data,
- Access with intent to commit offences,
- Unauthorized access with intent to and/or interception of computer services,
- Unauthorized modifications of computer material,
- Damaging or denying access to computer systems,
- Unauthorized disclosure of passwords
- Unlawful possession of devices and data,
- Electronic fraud.
- Taking, distribution, possession, publication or granting permission to take indecent photographs of children.

The offences committed under (a) to (e) and (h) are subject to extraditable crimes for which an extradition order may be granted. By inserting extradition provisions the legislature was trying to address the common challenge resulting from the borderless nature of the internet. The letter and spirit of the law is to make it difficult for criminals to use Mauritius as a computer systems crime haven.

The Electronic Communications Act, 2000, provides for;

- The establishment of the legal infrastructure to implant e-commerce;
- Regulate e-commerce and other electronic transactions
- Use of electronic signature;
- Grants authenticity and integrity to electronic correspondence;
- Establishes uniform rules and regulations and standards for the authentication of electronic records;
- Promote public confidence in the integrity and reliability of electronic commerce.

7.3 Institutional Structure of the Authority

The Authority's affairs are administered by a Board of Directors where the Chairperson is appointed by the Prime Minister and five other members are appointed by the Minister. The Secretary of Home Affairs is also a member by virtue of the operation of law. This again is suggestive of strong political influence over the outcome of appointments.

The appointments by the Minister are done in consultation with the ICT Advisory Council.

All members appointed to the Board are selected on the basis of their qualifications, expertise and experience in any one of the fields of their information and communications technologies, computer science, broadcasting and telecommunications law, business and finance, internet, electronic commerce and related educational and training services.

The Minister is empowered after consultation with the Board to appoint an Internet Management Committee whose duties include to:

- Advise the authority on internet and related policies;

- Be used as a forum for stakeholders to discuss issues related to the administration of the internet;
- Administer and management of domain names to foster the development of the information and communications technologies.

The obligations of the Authority are enumerated as:

- Democratised access to information and ensuring availability of diverse services that are provided within set quality of service standards;
- Create a level playing field for all operators;
- Provide services at affordable rates and that they are supplied efficiently and economically;
- Encourage the optimum use of information and communication technologies in commerce and industry;
- Support introduction of new service technologies and investment in infrastructure and services;
- Support the advancement of technology, research and development, taking into account convergence;
- Develop accounting requirements and draw up a cost allocation manual to be used by public operators;
- Regulate protection and security of data;
- Ensure safety and quality of data;
- Efficient and effective management of the frequency spectrum;
- Manage the Universal Service Fund.

Broadcasting services are regulated by the Independent Broadcasting Authority as provided under the Independent Broadcasting Authority Act 2000.

7.4 Finances

In terms of section 20 (3) the Authority's funds are derived from;

- Any sum appropriated from the Consolidated Fund
- Any charges or fees levied on the operators.
- Such other monies source as may be approved by the Minister.

The Universal Service Fund is established in terms of section 21 and the funds into the USF are levied from licensed operators who pay an annual contribution into the USF.

Any applications for a licence made to the Authority are published for interested persons to comment or object. In the consideration of applications the Authority is guided by issues relating to:

- Public interests;
- National security;
- Technical compatibility of the application with any other licensed services;
- Bi-lateral or multi-lateral agreements.

7.5 Licensing Framework

The ICT (Amendment of Schedule) Regulations 2003 provide a detailed structure of the licences that can be issued by the Authority and these are:

- Commercial,
- Private Network, and
- Engineering.

The Commercial licence category provides for three types of licences, that is, infrastructure provider, networking services provider and network application provider. The Authority is further looking at introducing more reforms in the licensing regime to make it more flexible and simpler. The new approach seeks to provide for the issuance of two types of commercial licences, that is facility based operator (FBO) and services based operator (SBO).

The Authority is mandated to determine or prescribe interconnection rates charging principals and it is empowered to arbitrate in any interconnection dispute between licensed parties.

All interconnection and network facilities access agreements are time framed in terms of the time it should take to negotiate and conclude an agreement, appeal to the Authority and the expected response time from the Authority.

The Act provides for the designation of a dominant operator in the information and communications technologies sector. Factors that determine dominance as having substantial power in the market by virtue of the:

- Terms of the licence;
- Market share;
- Availability to the operator of technological ability, infrastructure or capital.

Tariffs are proposed to the Authority by the operators and are subject to the Authority's approval. Tariffs are approved provided they do not have an adverse effect on the development or maintenance of commercially sustainable competition in the market.

In boosting itself as both an ICT business destination and export country the policy thrust is to make a concerted effort to advertise its inherent and emerging strength as an emerging offshore location. Government proposes the setting up of an Export Development Fund. Added to that is the adoption of a comprehensive branding strategy for ICT exports and participation at selected international ICT trade fairs and exhibitions, to assist local operators in establishing contents with foreign outsources and business partners.

8 The Republic of Mozambique

8.1 Policy Framework

The Government of Mozambique adopted the national Information and Communications Technologies Policy 2000. The legal framework is still under Law 8/2004. The Mission Statement recognizes that Information and Communications Technologies have given rise to the global information society with the internet being its highest exponent. In order to be part of that global information society the Government says its policy framework is aimed at:

- Making the country a relevant and competitive partner in the global information society;

part 1

- Contributing to poverty reduction in the country;
- Guaranteeing citizens' access to the benefits of global knowledge;
- Improving governance and public administration;
- Raise the efficiency and efficacy of state institutions and services;
- Make the country a consumers as well as a producer of ICTs.

The policy document realises the importance of the provision of universal services to under serviced and commercially unviable regions of the country by establishing the Universal Service Fund. The fund is to be financed from levies charged to licensed operators. Other incentives addressed in the policy document to be given as incentives to operators providing services in rural and under-served areas include;

- Removal of import tariffs on information and communications material and equipment destined for under-served and rural areas;
- Establishment of a single tariff for ISB nationally;
- Uniformity in tariffing for electricity and communication services supplied to universal access points.
- Encouragement of the deployment of modern technologies which are cost effective for the cheap diffusion of ICTs.

It is unfortunate that, while the policy framework addresses the principles of universal service and the modalities of how it will be operationalised, these principles are not captured in legislation. Policy alone without the supporting legislative framework does not give the sector confidence, clarity and certainty that the sectors policy legal and regulatory framework will not change.

In order to encourage the expansion of the infrastructure for ICTs the policy framework stipulates that the Government shall;

- Accelerate the restructuring and privatisation of the public telecommunications incumbent;
- Liberalisation of the telecommunications sector;
- Adopt public-private partnerships programmes for the development of infrastructure;
- Institutionalise a legal framework for the development of infrastructure;
- Attract investment and international partners.

One would hope to gather more information on how far the government has gone in implementing these core practical steps but which always prove to be a challenge to implement both at the political level and the economic level.

The policy framework further recognises the importance of protecting commerce, business and the public against abuse and electronic crime. It therefore highlights the need to;

- Guarantee the protection of personal data;
- Adopt solutions and cryptographic systems that are not susceptible to cyber violations
- Combat human rights violations, attacks against the public and preserve socio-cultural values;
- Support the production of internet content that reflects the country's values;
- Work with non-governmental organisations to achieve its goals.

The issues highlighted above required the development of strong legal frameworks that conform to other international jurisdictions where abuse on the internet mainly originates

from, it should also be supported by a robust and ubiquitous ICT infrastructure. These are fundamental steps that should be fulfilled by the Government for the policy to be credible enough to give investors comfort. The policy plans highlighted above need to be supported by a large ICT skilled human resource base.

In order to fund the policy objectives and plans enumerated in the policy framework and the policy strategic plan the Government proposes to create incentives for operators who invests in ICTs. Infrastructure development is recognised as the priority area for investment and directing financing to the national computerisation programme.

8.2 Reform Process

TDM still the one company which provides fixed networks services which is the main infrastructure to guarantee the provision of cheap access to ICT services, such as internet, e-commerce, e-business, etc. The provision of basic voice services over fixed networks is the exclusive right of TDM (the National Telecoms Operators).

It would be informative during the interview process to understand the steps taken so far to realize the goals and objectives outlined and the ICT policy implementation strategy adopted in 2002.

The mobile sector has seen some levels of liberalisation in mobile service provision. There are currently two mobile operators Mcel and Vodacom Mozambique operating as VM and was licenced in 2003.

8.3 Legal and Regulatory Framework

The regulatory body in Mozambique is the Institute of Nacional das Comunicacoes de Mozambique (INCM). Its responsibilities include:

- Advising government in the exercise of its supervising functions.
- Licensing operators.
- Managing the frequency spectrum.
- Formulating and interpreting of policy.
- Defining and monitoring performance targets set for TDM.
- Approving tariff schedules for basic services.

The authority was established in 1992 and is overseen by a Technical Council which comprises of representatives from various Ministries. INCM is responsible for the management of the Universal Service Fund.

8.4 ICT Implementation Strategy

The ICT implementation strategy acknowledges that legal changes are needed in areas such as electronic commerce, intellectual property, privacy and security as well as the embracing of international commerce to ensure the effective use of infrastructure. The implementation strategy document identifies six priority areas, that is, education, human resource development, health, universal access, infrastructure and governance that the Government has to address urgently in order to make the country an effective provider of ICT products and services. Therefore the following programmes are to be embarked upon;

- Human capacity development;
- Content and applications development;

- E-government;
- Policy and regulation review and update;
- Infrastructure;
- Enterprises development.

9 The Republic of Namibia

9.1 Policy Framework

The Government of Namibia adopted the ICT policies comprising telecommunications, postal, information technology and broadcasting in 2009. The policy recognises that ICT is both a prerequisite for economic progress and a major potential contributor to economic development. The policy statement views ICTs as an ideal means of achieving the National Vision 2030 whose fundamental focus is economic growth, industrial development, poverty eradication, equal opportunity, regional co-ordination.

The policy objectives are provided as to;

- Increase access;
- Improve IT literacy and skills;
- Increase competition and open markets;
- Increase independent regulation of the sector;
- Protect the rights of consumers;
- Ensure fair and transparent industry practices with the aim of growing the ICT sector.

In order to achieve these objectives, the Ministry of Information and Communications Technology's mandate is, among other things, that of :

- Being responsible for overall policy development and the establishment of the legal framework for the ICT sector;
- Defining policy conditions on the ICT sector (i.e. telecommunications, postal, IT and broadcasting);
- Developing legislation;
- Establishing an ICT Policy Unit in the Ministry responsible for research, providing advice on policy and development for the ICT sector;
- Monitoring policy implementation and legislation.

The role of the Regulatory Authority as defined by policy is that of a multi-sectoral regulator for the ICT sector and is responsible for:

- Implementation of government policy;
- Providing advice and make policy recommendations;
- Regulating and directing the ICT sectors;
- Issuing licences, overseeing and monitoring implementation and compliance with licence terms and conditions;
- Promoting competition and attracting foreign investment;
- Managing the Universal Service Fund.

9.2 Legal and Regulatory Framework

The Communications Act No. 8 of 2009 provides for among other things:

- Regulate and control communication activities including network and spectrum management by an independent regulatory authority;
- Promote the availability of high-quality, reliable and efficient ICT networks and services;
- Encourage participation in the ICT sector by locals;
- Increase access to telecommunications services at affordable prices;
- Enhance regional and global integration and co-operation in electronic communications;
- Establishment of a Universal Service Fund;
- Administration of the ccTLD;
- Consumer protection.

The Act establishes the Communications Regulatory Authority of Namibia (CRAN), a regulatory authority for the combined telecommunications and broadcasting sectors and its main functions among others are to:

- Grant, renew, amend, transfer, suspend, revoke licences;
- Develop and enforce licence conditions;
- Manage the radio frequency spectrum;
- Make regulations prescribing the fees for licences, prescribing the procedure and process to be followed by licence applicants, and applicable penalties;
- Regulate electronic communications including broadcasting and postal services.

9.3 Finances

The funds of the Authority are derived from:

- Funds appropriated to the Authority by Parliament
- Licence fees
- Spectrum licence fees
- Any other fees or levies prescribed under the Act.

9.4 Licensing Framework

The regulatory framework provides for a horizontal licensing regime (as opposed to the vertical licensing framework that was in place) where licences issued are technology and service neutral. The new law provides for the issuance of two categories of licences;

- Individual licence.
- Class licence.

A class licence is defined as a licence where the service to be provided do not have a significant socio-economic impact while an individual licence is defined as a licence where the service or networks required are of a considerable significant socio-economic impact. Furthermore in section 38 (6) it is provided that the Authority, after concurrence with the Minister may prescribe that only a certain number of individual licences may be issued with respect to any specific category of services or networks. However the consideration should

not result in more than one licence being issued for each category of services at any given point in time.

The law places restrictions on the number of licences that can be issued in an identified market segment in a bid to manage the liberalisation process, most notably in the issuance of individual licenses. While this may be viewed as militating against the diffusion of converged services this is necessitated by the need (on the part of Government) to ensure orderly development of the sector. The Government is also confident that such an approach will result in the issuance of individual licences to well established operators with the capacity to deliver on its policy objectives and goals.

Individual licence holders are subject to mandatory Universal Service obligations. The new legislation provides for the conversion of licensee issued under the old legislative framework within 24 months to the new licensing regime.

The law restricts foreign ownership in a licence to 49% of the company that applies for licence in Namibia.

Individual licence holders are obliged to provide facilities access to other networks operators and access shall be provided:

- On a non-discriminatory basis;
- Network elements have to be unbundled;
- Access should be provided at any technically feasible point at rates and on terms and conditions as to be agreed between the parties.

Reviews on decisions of the Authority can be taken on appeal to the High Court.

The new law prohibits anti-competitive behaviour, and anti-competitive behaviour is defined as:

- Practice or activity which has the effect of preventing, restricting or distorting competition.
- Any abuse of a dominant position in the market

To determine whether an operator has a dominant position or not the Authority in consultation with the Competition Authorities can prescribe the criteria. However another licensee can request the Authority to conduct a hearing to determine that another operator has a dominant position in the market.

The incumbent operator is deemed to be dominant in the following areas:

- Provision of access to the public telecommunications network;
- Public availability of local, national and international voice services;
- Call origination and termination on the public telecommunications network;
- Transit services in the public telecommunications network;
- Wholesale termination and trunk segments of leased lines.

Dominant licences are obliged to provide co-location facilities to competition operators while all individual licence holders are obliged to provide interconnection to competing licence holders and the rates for interconnection shall be calculated using the forward-looking incremental cost principles.

Interconnection agreements are based on an Interconnection Reference Offers (IRO) published by the dominant licensee within 6 months from the commencement date of the Act.

Interconnection shall be allowed at:

- Any technically feasible point within the network;

part 1

- Cost oriented prices and rates;
- Non-discriminatory terms and conditions;
- Equal quality of interconnection to that of the dominant operator or its own subsidiaries or affiliated operators.

The Authority is empowered to intervene and conclude any interconnection agreement where the parties have failed to agree. Section 50 provides for the sharing of not just network facilities but includes infrastructure that is owned and operated by a dominant licensee. The challenge with this provision is that in a developing economy like Namibia, such an approach might not encourage new entrants to build their own networks hence reduce network expansion unless the licence conditions or regulations provide time frames within which new entrants who share infrastructure in terms of this clause should have build their own networks.

Licensed operators are allowed to lease spare capacity in utilities such as electricity and railway, water, broadcasting. This is an innovative approach that is meant to encourage the rolling out of services at a faster rate.

It is now a regulatory requirement that dominant licensees should adopt accounting separation principles for communications activities provided by them. In addition the accounting system used must be based on current cost, and all regulated operators are expected to conform to this legal requirement within two years after the commencement date of the Act.

However given the complexity of drawing up appropriate accounting separation methods it would be interesting to see how the regulatory authority plans to implement this requirement. It also demands that the regulatory be adequately resourced with expertise and skills knowledgeable about costing models and telecommunication regulatory accounting systems.

9.5 Universal Service

The law provides for the establishment of the Universal Service Fund which is managed by a Board appointed by the Minister, the mandate of the Fund is to:

- Promote universal service;
- Identify schemes that promote and support universal service;
- Recommend to the Minister appropriate policy approaches on universal service;
- Manage the universal service fund.

The Funds for the Universal Service Fund (USF) are realised from levies charged on licensed operators. Those operators designated to provide universal services receive subsidies as prescribed by the Authority.

10 The Republic of Seychelles

10.1 Policy Framework

The policy position of the Republic of Seychelles ICT policy focuses on five main areas which have been identified as being core in the development of the economy and these are;

- ICT infrastructure development;
- Strengthening of the legal and regulatory framework;
- Human resource development;

part 1

- ICT industry development; and
- Government role in the sector.

Recognising the cross-sectional nature of ICTs the policy acknowledges that ICTs have lead to the convergence of broadcasting, telecommunications, computing and content. Furthermore it emphasises that international experience has proven that ICT utilisation has had a positive impact in the way business is conducted, has facilitated learning and knowledge sharing, generated accelerated global information flow and empowered citizens and communities.

The National Vision seeks to promote the country into globally competitive nation with a modern ICT enabled economy and knowledge based information society, where strong, efficient and sustainable improvements in social, economic, cultural, and good governance are guaranteed. It also seeks to foster regional integration through the development and effective application of ICT".

Policy objectives are stated as;

- Provision of accessible, universal, affordable, reliable, modern and high quality levels of ICT facilities and services;
- Creation of an enabling legal and regulatory environment that ensures growth and development in the ICT sector;
- Utilisation of ICTs to enhance education and skills development.
- Utilisation ICTs to create a conducive environment for the promotion of investment and a sustainable economy; and
- Purchase by the Government as a user and support by the regulator of ICT for the innovative, effective and efficient delivery of information and services to citizens and within the public sector.

In the development of infrastructure Government commits to promoting competitive markets for ICT service provision and ensure that the infrastructure already deployed is utilized effectively. It further commits to encourage infrastructure and facilities sharing and encourage the private sector to develop ICT infrastructure.

It commits to promote wide spread access to ICTs and the development of infrastructure that supports e-commerce and secure transactions. On the legal and regulatory front the policy commits to review existing legislation taking into account information and best practices to support ICT development. It seeks to establish a legal and regulatory environment that promotes confidence through the enactment of legislative instruments that address issues relating to computer and computer related crime, consumer protection, intellectual property rights, dispute resolution and security.

The policy framework emphasises the need to establish a framework that ensures fair and equitable competition and promote rapid growth of new services and applications. At the Government level the policy seeks to create a high level ICT leadership that supports the use of ICT to efficiently and effectively deliver services and promote affordable access to computers and the internet at the community level.

11 The Republic of South Africa

11.1 Policy Framework

There is no policy framework for the Information and Communications Technology sector in South Africa, other than the 1995 White Paper on Telecommunications Policy. The

Department of Communications is charged with the responsibility of giving policy direction in the communications sector.

The primary legislation that guides the sector is the Electronic Communications Act 2005. The Minister is empowered to give policy direction with respect to the granting of certain licences for purposes of fulfilling the Government's objective of ensuring a managed liberalisation policy [section 5(6)] in the electronics communications sector and the Authority's power to grant such licences is guided by such policies.

11.2 Legal and regulatory Framework

The Electronic Communications sector in South Africa is governed by the Telecommunications Policy document of 1996, the Electronic Communications Act 2005, the Independent Communications Authority of South Africa Act 2000 as amended in 2005, the Promotion of Access to Information Act 2000.

The Electronic Communications Act, which is the primary legislation was promulgated in 2005 and signed into law in 2006. It replaced the Telecommunications Act 1996, as amended in 2001 and 2003. The Act has sought to create a horizontal and technology as well as service neutral regulatory environment.

The objectives of the Act are to:

- Promote convergence in the broadcasting, broadcasting signal and telecommunications sector;
- Provide for the regulation of electronic communications services;
- Promote the convergence of electronic communication network services and broadcasting services;
- Provide a new framework for the granting of licences;
- Manage and control of the frequency spectrum;
- Provide for the combined existence and management of the Universal Service Agency and the Universal Service Fund.

The authority is empowered to make regulations for the purposes of controlling and overseeing the electronic communications sector. Such regulations relate to among other things:

- Fees and charges relating to licence granted by the Authority;
- The procedure for application consideration and granting of electronic communications licences.

As indicated below, the regulator is established by separate statute, the Independent Communications Authority Act of 2000, which merged the telecommunications and broadcasting regulators and which was amended in 2006 to align with the Electronic Communications Act and which amongst other things, gave the Minister greater power of appointment of the Council.

In anticipation of the needs to provide a secure environment for electronic transaction the Electronic Communications Transactions Act was passed in 2002. It provides for the:

- Facilitation and regulation of electronic communications and transactions;
- Provision of the development of a national e-strategy for the Republic;

- Promotion of universal access to electronic communications and transactions and the use of electronic transactions by SMMEs;
- Provision of human resource development in electronic transactions;
- Prevention of information systems' abuse and
- Encouragement of e-government services' use.

The Act is complex with monitoring and policing functions and as a result has still not been fully implemented.

11.3 Licensing Framework

The new licensing framework provides for the granting of two types of licences that is individual and class licences.

- **Individual licences are issued for:**
 - Electronic communication networks of provisional and national scope operated for commercial purposes;
 - Commercial broadcasting and public broadcasting of national and regional scope provided both under free to air or subscription;
 - Electronic communications services consisting of voice telephony using numbers from the national numbering plan;
 - Any electronic communications network service, broadcasting service or electronic communications service where a state entity (directly or indirectly) hold an ownership interest of 25% of the share capital of the person providing such service;
 - Other services where the Authority determines that the service has significant impact on socio-economic development.
- **Class licenses are granted for the provision of:**
 - Electronic communications networks of district municipality or local municipality scope operated for commercial purposes;
 - Community broadcasting and local services provided free-to-air as by subscription;
 - Any other services where the Authority determines that the service does not have significant impact on socio-economic;

The licences to be issued have specific durations and are renewable. Some of the fundamental terms and conditions that have to be captured in a license document may include:

- Licence duration;
- Licence area of the authorized service;
- Service interoperability, non-discrimination, interconnection and facility showing;
- Interest of consumers as they relay to complaints handling, tariffs and general rights;
- Universal service obligations and universal access.
- The distribution of broadcasting services;
- Maintenance and facilitation of competitive electronic communications environment, the control and regulation of the anti-competitive practices;

part 1

- The efficient use of the radio frequency spectrum and migration to digital use of the frequency spectrum.

Universal access and universal service obligations apply to designated licensees who are granted subsidies from the Universal Service Fund.

All licences issued under the Telecommunications Act 1996 and the Broadcasting Act were to have been converted within the new legal and regulatory framework within 24 months from the date of coming into effect of the new law.

As a measure to ensure the speedy deployment of electronic communications networks and facilities the new law seeks to reduce red tape and bureaucracy arising from the various applications to the different Government institutions licensee has to make. Therefore the Minister is empowered to develop guidelines providing for the procedures and processes for obtaining permits, authorisations, approvals and the resolution of disputes arising between licensees and other governmental authorities. The Ministries to contribute to such guidelines are those responsible for Provincial and Local Government Affairs and Environmental Affairs.

In terms of interconnections, the law provides for interconnection between the parties requiring interconnection to be provided:

- At technically and financially feasible points;
- For the efficient use of electronic communications networks and services;
- Based on mutually agreed commercial terms and conditions.

The Authority however has powers to intervene where parties fail to agree. The Authority is also empowered to make regulations which stipulate interconnection agreement principles to be followed by licensees. The principles include a framework for a Reference Interconnection Offer. All interconnection agreements for designated operators are to be filed with the Authority and are subject to the Authorities review and approval. In addition to that the Authority is also responsible for establishing a framework for wholesale interconnection prices to be charged for interconnection services. Such wholesale rates have to be cost based and forward looking. Carrier pre-selection is now a legal requirement for network operators and the framework for carrier pre-selection was to be in force by July 2006.

The Authority is required in terms of the new laws to identify and regulate essential facilities that are subject to sharing and these include local loops, sub-loops and associated facilities, as well as facilities connected to international electronic communications facilities that include submarine cables and satellite earth stations. These facilities should be made available on non-discriminatory terms and conditions and at technical and quality standards that are of the same level as those that the licensee providing the facilities offers itself on its subsidiaries. A committee charged with the mandate to look into the modalities of effecting local loop unbundling was constituted and completed its work in May 2007. The recommendations of the committee have been submitted to the Ministry for its consideration. The main thrust of the recommendations drew very strongly on European Union regulations and includes:

- Full unbundling of the entire local loop,
- Line sharing-unbundling of the higher frequency part of the spectrum for broadband service provision,
- Bit-stream wholesale services to be provided by ISPs,
- Sub-loop unbundling.

The notion behind the recommendations is to increase access to consumers by enhancing the already existing network thus ensuring optimal utilization of the networks and minimal

investment by new entrants. The real impact of the approach will only be seen once the recommendations have been approved and implemented.

Furthermore licensees are prohibited from entering into international facilities access agreements that provide for exclusivity or that create undue barriers to access and use of international communications facilities. This interesting development will have a serious impact on the SAT-3 submarine cable on the West Coast of Africa where Telkom SA is a partner in a closed partnership agreement.

Broadcasting service licences are subject to a code of conduct established by the Authority through regulations or a code of conduct established by other institutions recognised and approved by the Authority.

The Authority in terms of section 67(4) is empowered to define electronic communication networks and services markets that are subject to regulations and also designate licensees with significant market power in a particular market segment who are therefore subject to regulation. A licensee with significant market power is identified by the degree of:

- Control of essential facilities;
- Vertical relationship that could be detrimental to competition in a particular market segment.

The Authority has since enacted regulations relating to licensing process and procedures as well as regulations on standard terms and conditions for individual licences.

11.4 Universal Service Agency of South Africa (USASA)

South Africa seems to be one of the few SADC countries with a functional Universal Service Fund. The management and supervision of Universal Access and Universal Service obligations still vests in the Universal Service Agency established under the Telecommunications Act 1996. The Agency is mandated to:

- Promote the goal of universal access and universal service;
- Facilitate and offer guidance and identification and monitor the implementation of telecommunications reconstruction and development projects and programmes.

The Agency reports to the Minister and its funding is as appropriated by Parliament to the Universal Service Agency. Licensees with an obligation to provide universal access and universal obligations obtain subsidies from the Universal Service Fund for the network facilities and services provided. All operators issued with licences are obliged to contribute to the Universal Service and Access Fund such fees or levies as prescribed by the Authority. However broadcasting services licensees contribute to the Media Development Diversity Agency.

11.5 Institutional Framework

The institutional framework of ICASA is provided for by the Independent Communications Authority of South Africa Amendment Act 2006. The functions of the Authority relate to:

- Making recommendations to the Minister on policy matters;
- Monitoring the electronic communications sector to ensure compliance with the Act;
- Managing the radio frequency spectrum;
- Developing and enforce licence conditions;
- Granting, renewing, amending, transferring and revoking licences;

- Making regulations on any matters relating to electronic communications as provided for in all the primary legislation.

The affairs of the authority are overseen by a Council appointed by the President on the recommendations of the Minister. The Minister receives a list of recommended appointees from the National Assembly, with the actual interview and selection process undertaken by the multiparty Parliamentary Committee on Communications. In law the appointments to the Council are based on qualifications, expertise and experience in broadcasting and telecommunications policy, engineering, technology, frequency band planning, law, marketing, journalism, entertainment, education, economics, business practice and finance. However the issues of ruling party patronage in Board appointments is common. If the appointees are trusted and professional, the regulator can be effective but the fear of regulatory capture by Government is not a far-fetched notion.

The Department has since approved an ICT Black Economic Empowerment Charter which seeks to bring in meaningful participation of the majority black population into the main stream national economy particularly the ICT sector. The resolve of the draft policy document is to:

- Promote the effective implementation of Black Empowerment policies and legislation in the ICT sector;
- Bridge the digital divide by actively promoting access to ICTs;
- Advance economic and social transformation in the ICT sector;
- Support skills development and training initiatives;
- Contribute towards the reduction of unemployment and poverty alleviation.

12 The Kingdom of Swaziland

12.1 Policy Framework

The policy advocates for the centralisation of the leadership and co-ordination of ICT related issues in order to optimally exploit the benefits of ICTs. Government through the Ministry of ICTs has been recognised as the provider of that leadership and its role has been given as to:

- Enhance sound macro-economic management support by putting in place investor friendly rules and regulations;
- Be the ICT champion by visibly using ICTs in its everyday business within its institutions as well as communicating with citizens;
- Develop comprehensive e-government initiatives.

Therefore the policy rests on seven pillars which have been identified as ensuring the successful of the development goals and these pillar are; economic management, economic empowerment, human resource development, agricultural development, industrialisation, research and development, environmental management and the media.

The policy framework provides for the restructuring of the sector by creating of a separate and Independent Regulatory Authority responsible for communications and broadcasting and should be in place by end of 2007. It also commits to the privatisation of the incumbent operators, the Swazi Post and Telecommunications Corporation by 2007. The government further commits to have enacted the following legal instruments to support the development of ICTs:

- Personal Data Protection by 2007,

- Draft Cyber laws by 2006,
- Enact the Electronic Payments and Transaction Bill by 2005.

The Electronic Payments and Transaction Bill is expected to address issues related to digital contracts and signatures, public and private key infrastructure, personal and private data protection, copyright and intellectual property rights, computer crime and fraud etc.

The policy seeks to address the following matters comprehensively:

- Increasing the national awareness on the role and potential of ICTs to national development;
- Defining clearly the roles of different players in the development of ICTs and streamlining gender related issues in ICT development programmes;
- Facilitating the development and implementation of a legal and regulatory framework that supports the deployment and utilisation of ICTs;
- Promoting public-private co-operation and partnerships for infrastructure and services deployment;
- Facilitating the deployment, expansion and modernisation of information and communications infrastructure;
- Developing the human resource capacity;
- Facilitating the institutionalisation of Universal Service and Universal Access.

The Government commits to have a Master Plan for ICT capacity building in place by end of 2006 and to have all senior Ministries officials ICT literate by 2007 with 70% of civil servants having ICT basic skills by 2010.

In the education system, the Government commits to having computer laboratories in all tertiary education institutions with internet connectivity by the end of 2007 and ensuring that teacher training institutions offer computer studies by 2008. ICT literacy is supposed to be a mandatory entry requirement into tertiary institutions by 2015 and ICT education programmes are to be introduced at all level in eth education system.

The Government committed to have established an Independent Regulatory Authority by 2006, unbundled the local loop by 2007, deregulated the telecommunications sector by 2007, privatised the fixed network operator by 2008 and have licensed a second fixed network operator by 2010.

All these targets can only be met and fulfilled if Government has the requisite resources that range from financial resources to human capacity and related skills otherwise the policy pronouncement will remain a wish list. That in turn will dent the confidence of the market in the Government.

12.2 Legal and Regulatory Framework

The regulatory framework is now governed by the Electronic Communications Act of 2009 and the Swaziland Television Authority Act 1980 which shall be repealed once the Swaziland Broadcasting Bill is passed into law. Previously the legal and regulatory framework was defined by the Posts and Telecommunications Act.

The Electronic Communications Act is designed to regulate electronic communications excluding broadcasting.

12.3 Minister's Powers under the Act

The Minister is empowered to:

- Develop and establish policy;
- Define the general national strategy in the communications sector;
- Define and monitor policy related to universal access and universal service;
- Promote the advancement of research and development in electronic communications

12.4 Licensing Framework

The Act provides for the issuance of two broad types of licences:

- General licences
- Individual licences

These types of broad licences are meant to provide flexibility in granting of service and technology neutral licences.

The law requires that in considering applications for general licences, the Commission should put in place licensing procedures and process that are open, transparent and non-discriminatory. This is achieved through the publications of the non-confidential version of the proposed considerations for the licence for public comment before the evaluation process is completed by the Commission.

In considering an application for an individual licence the Commission is required to again invoke the public consultation process as explained under consideration for a general licence but the process goes further to demand that the Commission should elaborate the selection procedure where the licence is to be issued through a competitive or comparative bid process. Before bids are invited the Commission should satisfy itself that:

- There is a market for the licence being requested;
- It is in the public interest to issue the licence;

The law directs that the process should be completed within a period of six (6) months. Interconnection for those operators not designated as dominant operators is provided on reasonable commercial terms.

The Commission is mandated to designate dominant market operators within defined market categories and those operators defined as having a dominant position are subject to additional specific regulatory obligations. Dominance is only prescribed in those market categories where competition has been found to be ineffective.

The additional obligations dominant operators can be subjected to include but not limited to:

- Providing interconnection to networks and network facilities;
- Providing access to specified network elements or facilities;
- Unbundling of networks including the local loop;
- Providing wholesale services;
- Granting open access to technical interfaces, protocols or other key technologies as well as providing co-location and facilities sharing;
- Providing access to operational support systems or software systems in a manner that ensures fair competition.

These obligations are however imposed after due consideration of the technical and economic viability of the networks and the rate of market development, the availability of capacity within the network of the dominant operators as well as the level of competition in the market.

The Commission is empowered to prescribe conditions upon which licensees can access and use specific network facilities. In all cases however, operators are expected to observe the principles of non-discrimination, transparency, accounting separation and cost based pricing when providing interconnection and access to networks and network facilities. Furthermore, cost accounting models applied by operators designated as dominant should be publicly available to consumers.

12.5 Universal Access and Universal Services

The law provides for the setting up of a Universal Service Fund to which all licenced providers of public electronic communications services contribute too as prescribed by the Commission. Universal services are provided by designated operators who recover their costs of providing the service from the Universal Service Fund. The law also provides for the establishment of a Rural Access Fund. This particular fund is designed to provide amenities such as electricity and electronic communications services to rural areas and it is the expectation of the law that the Universal Service Fund should compliment the activities of the Rural Access Fund. How these two funds will work in practice needs to be assessed over time as these are new initiatives by the government to ensure diffusion of essential services to all parts of the country.

12.6 Transition Provisions

As the law governing electronic communications services came into effect in 2009, in an environment where telecommunications services were being offered under a vertical licensing regime. The law provides that the new provisions apply to new licence applicants. Those service providers who were licenced prior to the coming into force of the new law are allowed to operate under the old licencing conditions until such time as the licences are due for renewal.

The approach is commendable as it provides electronic communication service providers licenced under the old laws sufficient time to adjust their business processes in order to conform with the new dispensation. It also provides the Commission sufficient time to build its regulatory capacity to be able to cope with the complex regulatory regime ushered in by the new legislative framework.

12.7 Broadcasting Services

The Broadcasting Bill provides that the regulation of broadcasting services shall fall under the purview of the Swaziland Communications Commission which is mandated to issue the following licences to broadcasting services applicants:

- Public broadcasting service licences;
- Commercial broadcasting service licences;
- Community broadcasting licences;
- Subscription broadcasting licences.

The regulation of content is done by the Commission which appoints a Standards Committee which looks at issues relating, among other things, to:

- Codes of conduct and ethics of broadcasters;
- Nature of content diffused;
- Programme scheduling; development and dissuasion of local content.

13 The United Republic of Tanzania

13.1 Policy Framework

The Republic of Tanzania is one of the countries in the SADC region which has been at the forefront of the restructuring, liberalisation of the communications sector. The Tanzania Communications Act of 1993 commenced the liberalisation of the Post and Telecommunications sector as it prescribed the creation of an Independent Regulatory Authority. It also provided for the separation of postal operations from telecommunications resulting in the creation of Tanzania Posts Corporation (TPC), Tanzania Telecommunications Company Limited (TTCL) and Tanzania Broadcasting Commission the later being charged with the responsibility to regulate broadcasting services and networks. The enactment of this legislation saw the licensing of 4 mobile operators Celtel, Mobitel, Vodacom and Zantel. Data service operators grew from nil in 1993 to 16 by 2002 and internet service providers increased from 1 in 1993 to 23 by 2002. Rural community tele-centers were established to increase the availability and access to telecommunications services to rural populations.

The year 2003 saw the launch of an Information and Communications Technology Policy Framework. The adoption of the policy document was followed hard on its heels by the promulgation of the Tanzania Communications Regulatory Authority Act 12/2003.

Information and Communications Technology Policy Framework

The ICT Policy focuses on nine (9) main areas that have been identified as critical in the harnessing ICT and there are:

- Strategic leadership in ICT
- Infrastructure
- ICT industry development
- Human capital development
- Legal and regulatory framework strengthening
- Productive sector development
- Service sector development
- Enhancement of the public sector
- Universal service/ access

The policy is said to have been designed to support the National Vision 2025 whose thrust is the development of a nation that has a high quality livelihood that enjoys, peace, stability and unity and good governance being supported by a well educated and learning society through a strong and competitive economy capable of producing sustainable growth and shared benefits by 2025 through the effective and efficient utilisation of ICTs.

The policy framework recognises the inadequacy of communications infrastructure that has resulted in a low communications penetration rate at the time of its launch. The country had a tele-density rate of 1.2% for the fixed network with the number of mobile phone subscribers standing at 0.8%. The number of mobile phone operators stood at 4 compared to 1 in 1993; with a network comprising of fibre optic cables, microwave links and satellite based links of which 95% is digital. However it is noted that most of this network is in urban areas.

The policy framework also ushered in the liberalisation of the communications and broadcasting sector as the country has 24 licensed broadcasting service providers, 4 mobile operators, 16 data service providers, 23 internet service providers and 18 radio broadcasting service providers. It is noted that this level of liberalisation has seen the remarkable increase in the diffusion of ICT services and an increase in the number of network subscribers, but the demand is still there and the gap between urban and rural areas is significant.

The policy framework further elaborates the need for an educational system that is ICT driven from primary level to tertiary or university level. The policy emphasises the need to have an ICT literate population and workforce in order to optimise on the benefits and opportunities resulting from the use of ICTs. It also highlights the fact that an educational system that integrates ICT applications and tools in its learning programme enhances the ability of the future workforce to capitalise on the use of ICTs.

The use of ICTs is also regarded as an essential tool for empowering society through its availability of internet cafes but that has to be supported by the development of the telecommunications infrastructure. The development of local content that is relevant and addresses the needs of the people in their language is recognized as an essential element in harnessing ICT within the policy. In addition the development and implementation of e-strategies is also viewed as an important component in the growth of the economy. The policy highlights the important role played by e-strategies applications such as e-commerce, e-governance, e-health etc.

The steady growth in ICT penetration is attributed in the policy document to government sector reforms which include liberalisation, privatisation, deliberate Government support to the private sector and entrepreneurship. The policy document recognises the importance of developing ICT infrastructure in tandem with essential support infrastructure such as electricity supply, basic economic services and other social necessities.

13.2 Legal and Regulatory Framework

Tanzania realises that despite its past developments in telecommunications and the ushering in of Information and Communication Technologies the regional and international expectation is the need to build an ICT environment based on trust, reliability and robustness and cyber security laws have to be enacted. This also has to be supported by an adequate regulatory authority that has sufficient resources and capable of regulating in a converged environment. The enactment of specific and effective legislative instruments for policy, content development, security, respect for copyright and intellectual prosperity and the observance of fair trade practices is essential.

The new regulatory framework as pronounced in the Tanzania Communications Regulatory Authority Act 12/2003 brought together the telecommunication regulatory authority and the broadcasting regulatory authority to be now known as the Tanzania Communication Regulatory Authority. The new legislation provides for the regulation of converged services between telecommunications postal services and broadcasting which are now provided as electronic communications services. This action by the Government reinforced its commitment to support convergence in Tanzania.

The new law creates a content committee under the Authority charged with the responsibility to:

- Advise the sector Minister on broadcasting policy
- Monitor and regulate broadcasting content
- Handle complaints from operators and consumers; and
- Monitor broadcasting ethnic's compliance.

The decisions of the Authority are subject to review by a Review Panel established by the Authority, when an aggrieved party desires a decision to be subjected to review. An appeal from a decision of the Authority lies with the Fair Competition Tribunal.

Consumer issues are dealt with by a body known as the Tanzania Communications Regulatory Authority Council, composed of persons from the business community and organisations representing the private sector. The mandate of the council is to represent the interests of consumers, receive and disseminate information on consumer issues and to consult with industry, government and consumer groups on matters relating to regulated electronic communications goods and services.

The finances of the Authority come from licence fees, levies collected for regulated services. The law provides that levies shall be set at not more than 1.5% of a regulated operator's gross turnover of regulated services annually. Currently the Authority is levying 0.8% of annual gross turnover of an operator's regulated services. However the regulations and primary legislation are silent on whether the levies should be aligned to the regulators administrative costs for the year or some other rational. Licence fees are equally set on the basis of a formula that is set by the regulator but the parameters are not prescribed in law. For purposes of regulatory accountability, international best practice dictates that the levies that the regulator collects should have a direct correlation to regulatory costs incurred by the regulator. Other finances for the regulator can be obtained from loans, donations, grants. The Authority does not receive funding from Treasury thus enhancing its independence from Government influence. Donations from regulated operators are specifically prohibited, again freeing the Authority from regulatory capture by industry players.

The Authority accounts to the Minister and is required to provide the Minister with annual reports and its programmes for the coming year.

13.3 Secondary Legislative Framework

In order to give effect to the primary legislative framework provided under the Tanzania Communications Regulatory Authority Act 12/2003, the Authority has enacted the Tanzania Communications (Licensing) Regulations 2005, Guidelines and Procedures for Licensing Electronic and Postal Communications in Tanzania and the Interconnection Rates Determination 2/2007.

The Guidelines pronounce that the pace of technologies development in the field of telecommunications, broadcasting and computers has created an info-communications industry that requires new regulatory approaches on facility, transmission, switching and access of information and communications networks. This has resulted in the need to have easy and flexible licensing regimes hence the law provides for the issuance of the following licences:

- Network Facility Licence
- Network Service Licence
- Application Service Licence
- Content Service Licence

Other categories of licences that can be issued under the guidelines include postal service licence, courier service licence, radio communication and frequency spectrum user licence, installation and maintenance licence, importation and distribution licence and equipment certification licence. The Guideline further provide for the segmentation of the electronic communications market into four recognised market segments and these are:

- International market segment,

part 1

- National market segment,
- Regional market segment where a licence is licensed to provide services in an administrative region of Tanzania
- District market, where services are to be provided in an administrative district.

Furthermore, licences are classified into three groups, these are:

- Individual licences, these are licences that are considered to have big economical and social impact and regulatory obligations. These licences are issued through a competitive tendering process.
- Class licences, these are licences that are considered to have lesser social and economic impact.
- Exempt licences where the operator is simply required to register the service to be offered with the regulation.

The Tanzania Communications (Licensing) Regulations 2005, prescribe the eligibility requirements for a operator to be awarded any one of the electronic communications licences described in the Guidelines, that is, network facility, network service, application service, content service, postal and courier service licences.

A network facility licence has duration of 25 years. A network service licence for international, national, regional service provision has duration of 25 years while a network service licence for the provision of services at district market segment has a duration of 10 years. An international application service licence has a life of 10 years and an application service licence which covers national, regional and district market segments has a life span of 5 years. All the licences are renewable. Content service licences have a duration ranging between 3-5 years. The licence market segments for broadcasting content service provision include subscription TV, free to air TV national, regional and district, radio and community radio and TV. Broadcasting Radio frequency spectrum licences have a duration of 10 years.

The new regulations do not nullify previously issued licences but operators issued with licences under the previous legislative framework have an option to convert to the new regime or allow their licences to run their full life span. On renewal, operators are expected to conform to the new regulatory environment. This approach gives predictability, certainty and credibility to the new regulatory environment. This is a critical requirement to potential investors in the electronic communications market.

The new regulatory environment prohibits cross-subsidisation when the licensee provides more than one service. The law also provides that services shall be provided on a transparent and non- discriminatory basis. Hence the current legislation complies with international best practices as envisaged under the WTO on fair-trading in services.

The Board of Directors of the Authority is appointed by the President and the Minister. The President appoints the Chairman and Vice-chairman while the Minister appoints other four members of the Board. The nomination of the members is derived from the Nominations Committee constituted in terms of section eight of the new law. The Nominations Committee is composed of three Government officials and two persons from the private sector. Potential board members are invited to apply. The appointment process suggests strong political/dominant party/government determination of the outcome of appointment process. Even though the letter of the law circumscribes their independence, the structure of the process of appointment tends to give them a certain legitimacy in political circles. It takes the Government to allow them to do their job thereby making them quite effective, even though they are technically not independent which would enhance the credibility.

There appear to be sufficient checks and balances in the new law to ensure that qualified and appropriate persons are appointed to the Board. The process of inviting applications

brings in the element of transparency and good governance in the process of appointing persons to the various Boards envisaged under the new regulatory framework.

14 The Republic of Zambia

14.1 Policy Framework

The Government of Zambia adopted the Information and Communications Technology Policy in 2006. The policy recognizes that Informational Communications Technology (ICT) is an enabler of social and economic development and that the promotion of an information and knowledge-based society is a basis for creating wealth. To ensure that the policy framework sets the platform for Zambia's participation in the global economy ICTs have been identified as a primary sector in the Fifth National Development Plan 2006-2010.

Policy is said rests on a thirteen pillars namely:

- Human Resource Development;
- Agriculture;
- Tourism, Environment and Natural Resources;
- Education;
- Health;
- E-commerce;
- E-government;
- Youth and women;
- Legal and Regulatory Framework;
- Security in Information Society;
- Access, Media, Content and Culture;
- ICT Services;

The Government emphasizes within the framework that ICT's is an enabler upon which to build an information centered society where every citizen can create, utilize, access and share information and knowledge leading to a greater productivity, greater competitiveness and sustainable economic growth. Furthermore ICT's are viewed as an effective tool in enhancing good governance. The full effects of regional economic communities such as COMESA and SADC are recognized in the policy framework and the effects are:

Increasing market size through integration and cross border trade with ICTs playing an integral part of the social and economic development of member states

- Competition among market players in the ICT sector;
- Converging of regulatory authorities in telecommunications and broadcasting;
- Implementing independent and technology neutral legal and regulatory frameworks;
- Independence of market players especially the regulatory functions;
- Private sector participation in the development of ICT products and services.

14.2 Policy Making Functions

Implementation of policy framework is to be achieved through Public-Private Partnership with the Government taking the lead in its implementation. In order to take the lead position the framework pronounced the creation of the Department of Communications within the Ministry of Communications and Transport whose mandate is to co-ordinate and take charge of policy setting and implementation as well as crafting the legal and regulatory framework. The Communications Authority of Zambia was renamed in the new framework and is now known as the Zambia Information and Communications Technologies Authority (ZICTA). Its regulatory functions relate to electronic communications services which now include postal services. However, the Ministry of Information and Broadcasting is responsible for discharging the policy and regulatory function for the broadcasting services sector.

The policy framework envisages that the adoption of e-applications strategies such as e-health, e-government, e-education, e-commerce will assist in the enhancement and diffusion of services to all citizens. It also recognizes that empowerment of women and youth through ICTs, who are treated as special groups in the policy framework is of fundamental importance.

14.3 Legal and Regulatory Framework

The Zambian communications sector as at 2008 is characterized by three mobile operators who have registered a cumulative growth of 3,207,679 subscribers with mobile internet subscribers standing at 791,465. The PSTN subscriber base is 95,000 while internet and ISP connectivity has registered a total of 18,078 subscribers. A total of 12,484 subscribers are on dial-up while 5,671 subscribers are on broadband. The Government is currently in the process of seeking a strategic partner for the incumbent PSTN operator and this is expected to expand the industry further especially in the provision of broadband infrastructure and services. The national population as at 2008 is 12 million. In comparison to 2001, with a population of 10 million, the mobile subscriber base was 97,900 and there was no mobile internet provision. The fixed network subscriber base stood at 85,680 and internet and ISP connectivity stood at 8,248 with 7,627 customers on dial up and 621 on broadband. These statistics indicate that the sector registered growth over a period of seven (7) years and this growth has to be complimented with stronger regulatory oversight functions and ensuring a level playing field. The building of a transparent and competitive market has become of primary importance.

The primary legislation setting out the framework for the regulation of electronic communications is the Information and Communications Technologies Act of 2009 and the Electronic Communications and Transactions Act 2009. The Information and Communications Technologies Act provides for the issuance of two types of licenses:

- Individual licence;
- Class licence, which allow the holder to construct, own or make available an electronic communications network or provide a network service or provide one or more electronic communications services.

The essential characteristics of the licences are yet to be drafted by the Authority.

The economic regulatory issues are addressed in Part V of the new law. The law dictates that all costs shall be cost based. It further elaborates the measures and detailed steps that the Regulatory Authority has to undertake in the realization of cost based costing and pricing. The Authority is mandated to define the various markets segments in the telecommunications industry and the Authority is expected to publish, on an annual basis all telecommunications retail and wholesale services that are to be subjected to regulation as

well as those operators or licensees who are deemed to hold a dominant position in each respective market identified.

Interconnection is an obligation on the part of all operators of electronic communications networks in Zambia, the aim being to ensure that consumers obtain more and better services. The law stipulates that:

- All electronic communications services licensees must interconnect their communications systems with those of other communications licensees on request;
- Interconnection agreements must be concluded within a specified period;
- Any request or refusal of an interconnection agreement shall be lodged with ZICTA;
- ZICTA may intervene in interconnection negotiations on request.

An operator who has been designated a dominant operator in the interconnection market is obliged to offer interconnection to other licensees on terms specified in a Reference Interconnection Offer (RIO). The Reference Interconnection Offer has to be approved by the Regulatory Authority. Furthermore, the interconnection network has to be sufficiently unbundled into elements which have to be defined by functionality provided. The Authority is mandated to list in advance the network access elements that the designated dominate operator has to make available to other operators.

The main principles established by the Information and Communications Technologies on tariff setting are as follows:

- Users tariffs must reflect the cost of providing the services;
- Tariffs must be transparent and non-discriminatory;
- Tariffs must be such as to avoid the existence of cross subsidies in the services offered by an integrated electronic communications company;
- Tariffs must be structured and levels set to attract investments;
- Tariffs rates must take into account international best practice;
- Operators are prohibited from providing discounts that unreasonably prejudice the competitive opportunities of other licensees providing similar services.

The coming into effect of the new law will result in the immediate repeal of the old laws and the licenses issued under the old laws are given a life span of six (6) months from the date the new law comes into effect. Therefore all licensed operators who hold licenses issued under the Telecommunications Act, the Radiocommunications Act and the related subsidiary legislation are expected to hold new licenses under the ICT Act six month from the date of coming into force of the new law.

The Electronic Communications and Transactions Act provides the legal framework for the recognition of electronic transactions by the Zambian legal system. It recognises the formation of commercial transaction via the medium of the internet and encourages the use of digital signatures from accredited authentication agencies approved by the regulatory authority. The formation of electronically negotiated binding contracts is now accepted under the new law thereby facilitating trade and commerce. The Act also enhances consumer protection and personal data protection laws and as a result builds consumer confidence in transaction through the internet.

14.4 Institutional Structure of the Authority

The specific functions of ZICTA are:

- Issuance of technology and service neutral licenses;

part 1

- Management of the frequency spectrum and numbering plan;
- Promotion of consumer interests;
- Promotion of competition among service providers;
- Encouragement of investment in the ICT sectors.

The Regulatory Authority is managed by a Board of Directors appointed by the Minister and consists of nine members whose composition is as follows:

- One representative from the Ministries responsible for Information and Communication Technologies;
- One representative from an agency responsible for national security;
- One representative of the Attorney General;
- One nominated by the National Farmers Union;
- One person nominated by the consumer protection association;
- One person nominated by the law society;
- One nominated by the Engineering Association;
- One person nominated by a trade union staff of ZAMTEL;
- One other person appointed by the Minister.

Effectively there are three appointees on the Board from Government institutions and the Minister has the power to reject a nomination from the other institutions cited in the Act. Such an approach may compromise the credibility and effectiveness of the Authority particularly in a situation where there are personal from the National Security Agency and the Attorney General's office sitting on the Board. The effect of vesting the right to appoints board members solely in the hands of the Minister, as already indicated above has the effect of appointing people who owe allegiance to the Minister and that tends to compromise their effectiveness.

Nevertheless the new law has kept political appointments out of the Authority as a person who is a member of parliament or an employee or office bearer of a political party is prohibited from holding the post of Board Member of the Authority.

14.5 Financing

The Authority is financed from appropriations from Treasury as well as its own funds which consist of fees, loans, grants and donations.

14.6 Market Structure

The mobile, data and internet service provision markets are fully liberalised. However the policy document and legislative framework is not explicit on the liberalization of the fixed network sector, and the provision of Voice over Internet Protocol (VoIP) services which were specifically prohibited under the repealed laws. The policy framework however states that Zambia shall endeavour to attain full liberalization of all services in the ICT sector subject to regional and international protocols agreement best practices as well as market readiness.

The policy framework and new legislation while recognizing that conveyance implies the coming together of telecommunication, broadcasting media and the internet, it however keeps the regulatory functions of broadcasting out of the Zambia Information and Communication Technology Authority's portfolio. Hence there are two Authorities in place, ZICTA and the Independent Broadcasting Authority to oversee the regulation of broadcasting

services and networks. Such a set up might create regulatory challenges if it is not handled carefully. The set up also creates complexities on the management of content issues, such as the regulation of content development and dissemination.

14.7 Regulatory Challenges

The major implication is that within a period of six months from the date when the new law is gazette and for the currently licensed operators to remain legal operators, new licenses with terms and conditions that conform to the provisions of the ICT Act 2009 should be in place. Conformity with the law means within a period of six month from the date when the new law came into force the following activities, among other things, would have been completed:

- The Authority ought to have identified and designated dominant market power operators in identified services markets;
- Accounting separation activities ought to have been achieved by the designated dominant market power operators for the identified markets;
- Cost accounting information is readily available from operator specifically and the market in general for the regulator to undertake a qualitative and quantitative analysis of the data in relation to the available costing models and approaches in order for the Regulator and Government to agree on the ideal models to be applied in the market;
- The current networks are appropriately disaggregated and unbundled sufficiently for element based costing to be undertaken;
- Appropriate benchmarking costing data is readily available for such a cost model to be employed where necessary;
- Suitable methods of asset valuation have been agreed upon between the Authority and operators to ensure that all assets that operators indicate as being assigned for cost allocations are in use and properly inventoried. It is worth noting that the telecommunications sector is very capital intensive thus asset valuation is crucial;
- A methodology to calculate costs has been selected by the Authority which best addresses the data deficiencies that might occur due to lack of appropriate regulatory data from operators or due to lack of resources to capture the requisite data by the Authority.
- There is an assumption that the Authority has the requisite human resource base to undertaken data collection.
- Regulations/guidelines relating to interconnection, Interconnection Reference Offer, accounting separation, network unbundling tariff filling procedures will be in place.

The period of six months to convert licences is too short a period and may not be achievable. The South African legislation provided for a period of 18 months with a right to extend by another six months. Tanzania provided a period of twenty-four months to convert the old licences but operators were given an option to continue on the old licensing regime for the remainder of the life of the old licence.

15 The Republic of Zimbabwe

15.1 Policy Framework

The Government adopted an ICT policy framework in 2005. The policy framework recognises that ICTs offer the potential of increased availability of information, new means of communication, re-organisation of productive processes and increased efficiency, productivity and growth in all sectors of the economy.

part 1

The policy statement stipulates the following factors as the major causes for the reduced utilisation and proliferation of ICT:

- Lack of awareness of what ICT technologies can offer;
- Inadequate and sub-optimal use of available communications infrastructure;
- Cost related access to ICT;
- Failure to develop relevant content in local languages;
- Lack of a business culture open to change.
- Lack of a robust coherent and internally consistent; national policy framework.

In the policy statement the Government expressed its commitment to:

- Develop and improve ICTs infrastructure for all sectors of the economy particularly communications, electricity and transport;
- Encourage the full utilisation of existing communications infrastructure
- Increase bandwidth to enhance speed and efficiency of operators;
- Promote local production of ICTs products and the use of appropriate technologies;
- Implement measures to develop and retain skilled human resources in ICT;
- Rationalise the ICTs tariffs structure to make ICTs more affordable and accessible;
- Create a conducive environment for investment especially through public-private partnerships;
- Promote awareness and use of ICT.

The Government is equally committed to the implementation of e-strategies to deliver on e-Government, e-Health, e-Governance, e-Education programmes.

The policy statement recognises the crucial roles played by women youths and the disabled and the need to incorporate and empower these groups in the main stream economy through ICTs. It further proposes to create a National Information and Communications Technologies Authority whose mandate is to;

- Advise government on national ICT requirements and policy matters;
- Foster and co-ordinate accelerated development of ICT;
- Facilitate universal access and promote the development of the ICT industry;
- Develop the national ICT system security framework;
- Promote and co-ordinate human resource development and promote awareness.

Furthermore the policy document proposes to establish a converged Regulatory Authority whose mandate is to:

- Promote and regulate the development of communications networks and facilities.
- Develop and implement licensing frameworks.
- Control and licence the radio frequency spectrum.
- Control and regulate broadcasting and telecommunications services.
- Regulate charges and tariffs and implement the universal services charter.

The policy framework was meant to replace the Posts and Telecommunications and Universal Services Policies which lapsed in 2005. However to date nothing has happened

as far as implementation is concerned. It is hoped that with the creation of an ICT Ministry in 2009, the policy framework might be implemented.

15.2 Legal and Regulatory Framework

The primary legislation setting out the framework for the regulation of telecommunications and broadcasting services in Zimbabwe is the Postal and Telecommunications Act 2000, the Broadcasting Act and the Interception of Communications Act 2008. The Telecommunications Act provides for:

- Establishment of an independent regulator, the Postal and Telecommunications Regulatory Authority of Zimbabwe;
- Legal and regulatory framework covering licensing, interconnection, frequency, management, equipment approval and universal access and
- Restructuring of the former Posts and Telecommunications Company of Zimbabwe (ZPTC) into a postal company, a fixed network company and mobile cellular company as separate and distinct companies registered under the Companies Act.

15.3 Institutional Structure

On the role of the Ministry the Act provides that the Ministry responsible for telecommunications' primary role is to formulate government policy on telecommunications and to represent Zimbabwe in international and regional telecoms fora. The Ministry may however give the Authority general directions relating to policy.

The Authority is overseen by a Board of between five and seven members appointed by the President following consultation with the Minister of Transport, Communications and Infrastructural Development. Again the involvement of the Minister without parliamentary checks and balances may constrain the effectiveness and/or independence of the regulator.

The purpose and functions of the Authority are:

- Promoting competition and the development of the telecommunications sector;
- Ensuring the provision of sufficient domestic and international telecommunications services throughout Zimbabwe;
- Issuing and enforcing telecommunications licenses and radio frequency authorizations;
- Managing the national frequency plan and national numbering plan;
- Approving interconnection agreements, and intervening the negotiations on request; and
- Managing the universal service fund.

The Telecoms Act contains a number of mechanisms to help secure and ensure the independence of the regulator from the government and industry players in that:

- Board members are appointed by the President and may only be dismissed from office on explicit grounds provided in the Act;
- Members of Parliament and senior members of a political party are prohibited from serving as Board members;
- Board members are barred from having a financial interest in the telecommunications sector;
- Board members are obliged to disclose any direct or indirect pecuniary interests in any matter under consideration by the Board;

15.4 Licensing

The Authority is responsible for awarding licenses to telecommunications network operators and service providers under pursuant the Postal and Telecommunications Act of 2000 and related secondary legislation. Licences must be held by body corporates in which a controlling interest is held, directly or indirectly, by Zimbabwean citizens resident in Zimbabwe.

The law provides for the issuance of four main categories of licences that is, fixed telecommunications licences; mobile cellular telecommunications licences, radio stations licences, internet access provider licences, telecommunications system licences. In terms of the supporting secondary legislation fixed telecommunications licenses have duration of 20 years, while cellular licences have a life span of 15 years. All the above licences are renewable

All telecommunications licensees are obliged to interconnect their telecommunications systems with those of competing licensees on request. It is mandatory that interconnection agreements are concluded within specified period. Before an interconnection agreement is concluded the operators to the agreement must lodge the proposed agreement with the Authority for approval. All interconnection agreements should be drawn up following guidelines set by the Authority in the interconnection regulatory guidelines. The Authority is empowered to intervene in interconnection negotiations on request.

The Authority published a set of interconnection guidelines in 2001. The guidelines provide that all interconnection agreements must:

- Be economically, technically and administratively efficient;
- Promote greater efficiency levels;
- Be transparent to users and independent from any internal network characteristics;
- Provide for the customer to choose to access and use services of any licensee regardless of the network to which the customer is connected and
- Be non-discriminatory in terms of overall functionality, price, quality and performance.

The Authority also has the power to determine the facilities which should be shared within a network and can direct licensees to share facilities where there is no feasible alternative to certain types of facilities.

15.5 Universal Service and Universal Access

The Postal and Telecommunications Act provides for the establishment of a universal service fund. The fund is used for:

- Making grants to local authorities to assist needy persons to access telecoms and postal services;
- Financing the roll-out of postal or telecommunications services in under-serviced areas;
- Providing training in the provision of postal or telecommunications services;
- Contributing towards the adoption of services for disabled persons;
- Transferring telecommunications technology from foreign providers.

Funding is derived primarily from industry contributions (every holder of a license must pay an annual contribution) and from moneys appropriated by Parliament.

15.6 Comment

There is an urgent need to find common ground between the policy framework and the legal and legislative framework in order to give confidence to investors and certainty to the sector. The fact that 4-5 years have passed without the policy being implemented is an indicator of some fundamental challenges in the sector at the Government and regulatory levels and it becomes difficult to convince would be investors that their investment would be secure when there is no meeting of the minds at the policy and legislative levels.

16 Overall Assessment of ICT Policy, Legal and Regulatory Development and Best Practices

The SADC Member States appreciate the important roles that ICTs play in the development of their economies. This is seen in the new thrust the policy frameworks and legal regulatory frameworks are taking. The various countries are at different levels of developing ICT policy and legal regulatory frameworks. A few countries like Mauritius, South Africa and Tanzania have made considerable strides in this endeavour. There are also those who have had the policies and legal and regulatory frameworks adopted by the relevant country institutions but have not advanced to the stage of implementation while others still have to update the legal and regulatory frameworks.

Out of the ten countries assessed in the region the following fundamental factors are very apparent:

- It is an undeniable fact that there is convergence of communications, broadcasting and internet services,
- As a result of convergence the sector now has to be addressed as one and the services are now commonly viewed as electronic communications services and networks.
- Convergence between different electronic communications networks and services necessitate the establishment of a regulatory system that provides a technology neutral and service neutral licensing regime.

There is also recognition that there is a need to adopt a harmonised approach to regulation taking guide from the SADC Protocol, Policy framework and Model legislation.

The following best practices can be drawn from the policy, legal and regulatory regimes prevailing in the region:

16.1 Independent Regulatory Authority

The legal and regulatory frameworks emphasise the need to develop and adopt a legal and regulatory regime that strengthens the institution of the regulator and ensuring its independence.

The concept of regulatory independence has to be looked at from two perspectives, that is regulatory independence in the sense of the regulator being free from the influence of the Government in particular and regulatory independent being viewed from the perspective of effectiveness. From the first point of view most countries claim to have independent regulators but their appointment process and sometimes financing suggests they are not. This does not mean that they are not effective and the political environments in some countries make a 'trusted' regulator more effective if it allows them to get on with their job than an so-called independent regulator who is either in a constant pitched battle with the Ministry, or where the Ministry is constantly looking over their shoulder.

In most of the legislative documents, the appointment of the Chairman of the Board is done at Presidential level. Where the Minister is empowered to appoint Board members there are

checks and balances in that a consultative process is put in place, either through a committee or the National Assembly. Furthermore political appointees are specifically prohibited from holding office.

16.2 Licensing Regime

The trend that is permeating in the regime is the establishment of a technology and service neutral licensing regime or a horizontal licensing framework. This is being done to ensure that the converged services can be diffused through appropriate, effective and cheaper technologies.

Furthermore the licensing regimes being established seek to reduce regulatory burden in that there is a need to designate operators with significant market power or a dominant operator. The significant market power operator is the one being subjected to regulation.

The trend is also towards establishing ex-ante regulation where by the expected regulatory conditions are presented by the regulator in advance, for instance the requirement to:

- Have the significant market power operator publish an Interconnection Reference Offer (IRO) in advance;
- Enumerate in legislation the expected minimum terms and conditions that should be reflected in an IRO or an interconnection agreement;
- Require that the networks be unbundled so that an operator requiring interconnection only secures these network components he requires and nothing more and that the type of unbundled network components be published in advance in regulations, guidelines or through notices;
- Have rates, tariffs and costs of services and network components based on forward looking principles.
- Classify services into wholesale and retail services.
- Define market categories and designate operator with dominant market power for each market segment.

What is also coming out from the legal and regulatory frameworks analysed is that there is an appreciation on the part of Regulatory Authorities that is necessary to include the rights and obligations of operators' explicitly in legislation to foster the principle of a level playing field.

It should be noted that SADC member states have adopted European Union regulations which are designed for mature markets with well resourced regulators. The challenges they face are that:

- Markets within the region are not competitive enough to rely on competition regulation;
- Regulatory authorities lack human resources competencies to effectively implement the complex regulation regimes adopted;
- Regulatory authorities lack financial resources and capacity to effectively monitor and regulate the markets.

16.3 Management of Scarce Resources

The responsibility of managing and controlling the radio frequency spectrum, numbering plan and other source resources has been left squarely in the hands of the regulatory Authorities with the responsible Ministries being mainly responsible for policy implementation.

16.4 Human Resource Development

The development of relevant expertise and skills is seen as a strategy of paramount importance. There is a general understanding that this can be achieved through the establishment of Centres of Excellence and also integrating ICTs into the school curricula from primary level right through to tertiary or University level.

16.5 Infrastructure Security and Cyber-Security

The importance of national security and the development of effective legislation to deal with issues of personal privacy, data protection and countering cybercrime is coming out as a critical requirement in the policy frameworks. However in this aspect what is not clearly addressed in the policy statements is how this will be combated because cyber-crime is an international or global problem that requires harmonisation of policy and legal frameworks with those of the international community.

16.6 E-Strategies

The adoption of e-strategies and e-applications is of strategic importance to the member states and there are strategies that need to be implemented urgently to ensure accelerated social development especially in areas such as e-education, e-health, e-commerce etc. However there is an urgent need for Governments to sequence their priorities in order to achieve substantive and tangible progress and results in this discipline. The policy documents tend to express rhetoric and wish lists that are difficult to fulfil due to other social demands. Very few examples exist outside Mauritius of successful electronic applications usage for the benefit of communities and the business sector.

16.7 Diffusion of Services

There is also recognition that the internet is an integral part of convergence and services such as Voice over Internet Protocol (VOIP) cannot be prohibited anymore because of the technologies that are being developed which facilitate the provision of low cost voice and data services. The need to deploy at a faster pace the utilisation of infrastructure belonging to utilities such as electricity, water, rail is seen as a possible solution towards easing infrastructure development challenges.

The need to share network facilities has also been seen as a critical measure to reduce the cost of infrastructure development. Some member states have even prescribed the sharing of not just network facilities but the infrastructure itself.

16.8 Universal Service Fund

The establishment of the Universal Service Fund is also a critical element in the policy and regulatory environments. All the policy and legislative frameworks indicate that member states appreciate the benefits to be derived from universal service funds. However the rate at which the regulatory agencies facilitate the effective implementation of the fund projects into tangible outputs in the diffusion of services in underserved areas is not having the expected impact. This conclusion is made on the backdrop of the fact that almost all the legislation in the region captures this concept but very few of the funds are functional.

The other challenge in this respect is the size of the national telecoms/ICT markets. The markets are not large enough to enable the regulatory agencies to levy enough fees to support large scale projects. There is a need to investigate, explore and recommend the best mechanism of operationalizing the Fund.

16.9 Multi-Sectoral Regulation

Most of the jurisdictions in the region have seen the value of combining the regulation of telecommunications and broadcasting under one regulator. This is another measure of reducing regulatory burden. Of note is the fact that some of the countries keep the two regulators separate mainly for political reasons. Furthermore the majority of member states have made great efforts to comply with the expectations of the WTO Agreement on Basic Telecommunications commonly known as the Reference Paper. The Reference Paper stipulates in clause 2.2 that interconnection should be provided:

- At any technically feasible point in the network
- Under non-discriminatory terms, conditions and rates.
- On terms and conditions and cost oriented rates that are transparent, reasonable, having regard to economic feasibility,
- In a sufficiently unbundled manner so that suppliers do not need to pay for network components or facilities that are not required for the services to be provided.

Unfortunately a considerable number of the member states are not signatories to the Reference Paper. It would be ideal for the SADC as a regional body to ensure that its member states become signatories to the reference paper as this would give investors more confidence and the regulatory regime more credibility in that it is an indicator that member states agree to abide by international commitments.

16.10 Reform Process

Commitments to exclusivity previously subscribed to are gradually falling away as Governments and Regulatory Authorities focus on completely opening up the sector and promoting investment in all areas.

16.11 Implementation Challenges

Whilst the region has made considerable strides in embracing convergence and ICTs, there are still challenges which militate against the member states achieving optimal policy and regulatory goals. These challenges relate to the:

- Development of a robust infrastructure that supports broadband services.
- Lack of financial resources due to competing social obligations on the part of Governments.
- Reluctance by Governments to relinquish their shareholding in the incumbent fixed network operators and allow private participation.
- Slow pace of implementing policies and regulations to support the deployment of services.
- Lack of human resources, there is a lot of movement of human capital from Government institutions and Regulatory Authorities to the private sector where there are more attractive incentives and remunerations.
- Cumbersome and bureaucratic processes for investment approvals.

17 Recommended Best Practices

From the foregoing assessment, it is recommended that:

- Legal and regulatory environment supports a horizontal regulatory regime;

part 1

- Member states be urged to support a multi-sectoral regulatory framework whereby there is established one Regulatory Authority to regulate communications and broadcasting sector;
- Convergence between broadcasting and communications is rapidly transforming the regulatory and policy environment hence sector reforms should focus on permitting full competition with minimal policy and regulatory intervention;
- Regulatory authorities need to be strengthened in their human resource capacity and regulatory independence be guaranteed by reducing the powers of line Ministries in setting up of the structure of the Authority;
- Red-tape and bureaucratic investment rules and approval processes should be reduced to attract investment in the sector
- Electronic communications services provision and deployment of related networks has to be increased with the utilisation of excess capacity with other utilities such as electricity, water and rail being made accessible to electronic communications operators to increase deployment of services;
- More robust mechanisms of operationalising Universal Service Funds be development borrowing from the experiences of developed economies and fine tuning the mechanisms to the regional scenario;
- Encouraging member states to develop and adopt policy, legal and regulatory framework timely as the information society is not static and technologies and services continue to evolve.
- Encourage genuine public-private partnerships;
- Raise awareness amongst all stakeholders on the benefits of ICTs and involve them in policy, legal and regulatory framework development.

> BROAD EVOLUTIONS AND SPECIFIC CHANGES TO SADC ICT POLICY AND LEGAL FRAMEWORK

1 Convergence: challenges and opportunities for SADC ICT policy

1.1 Definition of convergence

The issue of convergence is one of the tasks for which SADC countries currently have not defined a specific policy but which is partly covered in the declaration on ICT from 2001. The project foresees, to develop a policy in this field in light of the technical and economic developments and the visible intensified integration of both sectors. Therefore, a new policy document is under preparation. The work on that document is progressing, so that we can reveal some general points already at this stage aiming to consider input received from the workshop of the SADC Technical committee. Thereby, the understanding of convergence in this project is that convergence is a major reason for change to be implemented in the existing documents (TCM protocol, SADC telecommunications policy, Model Bill) as it the industry reorganizes and this has to be reflected appropriately in legislation and policies.

The first aspect regarding convergence is its definition. International comparison and benchmarking does not come up with a universally applied definition of convergence. The Green paper on the convergence of the telecommunications, media and information technology sectors, and the implications for regulation of the European Commission also offers two definitions of convergence. It defines it as:the

- Ability of different network platforms to carry essentially similar kinds of services, or
- Coming together of consumer devices such as the telephone, television and personal computer.

The ITU sees convergence in three different fields as the following figure demonstrates



Figure 1: Convergence in different areas⁶

These three aspects are interrelated. The “industrial convergence” impacts the regulatory and legislative and also the institutional convergence. We will deal with all three aspects in the policy to be developed.

From a economic and technical perspective convergence refers to integration of different technologies into a common digital technology of information and communications that allows delivery of (broadband) services of video, audio, text, graphics, data and other

⁶ See <http://www.itu.int/net/ITU-SG/speeches-deputy/2007/apr19.ppt#410,3>, Challenges: Digital Convergence

content. The above definition from the EU shows that convergence in the ICT area can be divided into technology convergence and market convergence. Adding the need for regulation, it can be further divided into convergence of regulatory provisions, and convergence of regulatory organizations.

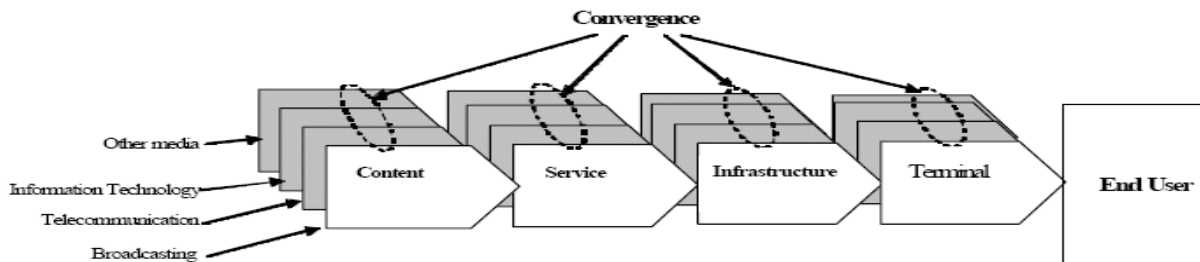


Figure 2: Convergence of technologies, industries, media, and content⁷

Different sector / industries like broadcasting and telecommunication have evolved in parallel to the development of the Internet. The new (digital) technologies now allow both for traditional and new communication services - whether voice, data, or content - to be provided over many different networks and therefore, content and service provision can take place across sector boundaries with one service carried on different infrastructures and with the end users using a single access equipment or several ones. This whole process of integration of infrastructure, service and content provision, and end user equipment is denoted as convergence.

As market convergence occurs, companies are no longer limited to original markets such as telecom operators to voice or cable companies to TV. A single infrastructure can today provide a plethora of services. Fixed and mobile operators increasingly offer content in addition to a bundled (voice, Internet, TV) telecommunications product. Content providers, in turn, expand their distribution channels using all available access networks to reach consumers. Such now well known services can be web access, online banking, e-government, VoIP, video streaming, web TV, video on demand, etc.

All this leads to a situation, where regulatory frameworks, which were traditionally designed for markets with clear functional differentiations between services and infrastructure, cannot fully cope with the requirements any longer. In order to support the country's economic growth, telecom regulation must therefore be dynamic and responsive to changing conditions. The main advantage of these new possibilities offered by converged markets for end users is enhanced competition, with different networks delivering similar services implying lower cost of service as well as potentially increasing economies of scale. In many developing countries therefore the highest interest on convergence issues has been the new access options by means of different technological solutions and the discussions on unified licensing. The implications are that the use of different access technologies should be promoted. An aspect of this may be to change the licensing regime in the direction of unified licensing instead of technology specific licenses.

The main industries that are mostly affected by convergence are the information and communication technology (ICT) sector, the broadcasting sector and other media dealing with information and entertainment potentially leading to electronic communication convergence regulation. It is important that not only the telecommunications sector but also the broadcasting sector is restructured in parallel in order to increase the effectiveness of the regulatory tools to handle convergence. Only such an integrated and coordinated approach will enable to reap the full benefits of both sectors' development and the introduction of advanced and converged services on the market for the consumers. Such an approach is

⁷ Anders Henten, Rohan Samarajiva, William Melody: The Next Step for Telecom Regulation: ICT Convergence Regulation or Multisector Utilities Regulation?

responding to the need for integrated environments for technologies, industries, services and/or markets will also have to cope with the sectors' different development speed towards convergence. Nevertheless, this type of approach seems to stumble on some regulatory overlaps between the two sectors.

In assessing the topic of convergence, we have seen how it influences multiple sectors as well as end users. We are also convinced that the issue of converged markets has to result in the adoption of a new appropriate regulatory framework. This leads us to the practical questions of implementation, which has to be dealt with additionally. Therefore, an assessment of the impact and interaction of telecommunications specific legislation with converged ICT related legislation, including media/broadcasting legislation, content laws, intellectual property laws, and privacy laws has to be completed on beforehand. This will help policy makers along with industries in both telecommunications and broadcasting to maintain a trade off between 'competition and public interest'.

By conceptualizing the ICT policy and identifying issues in layer by layer approaches, regulators can identify markets, clarify public interest issues, create boundary regulations that are effective, and target solutions for bottlenecks. Such an approach is also called a layered policy model.

With regard to the implementation, there exist in general three major approaches:

- **Legislative approach with the implementation of a new legal framework**
- **Regulatory approach, meaning policies focusing on incremental adaptation of past rules and regulations rather than fundamental redesign of new policy regimes**
- **Self-regulation approach, without intervention of the administration.**

The clear advantages of a legislative approach are that it removes the legal constraints of existing laws and offers the possibilities to eliminate contradictions and inconsistencies. Thus, such an approach is very transparent and does not give excessive leeway to interpretation by local administrations.

Based on this initial assessment, we propose that the new regulatory framework shall focus on the following aspects. The following points are to be understood as our analysis of options with respect to focal points of a convergent regulation. As will become clear from the analysis, maintaining a regulatory status quo is no option as it would in the short to medium term already create difficulties in handling relevant topics which appear in practice.

1.2 Technology and service neutrality

One of relevant questions is whether the rules and procedures should be implemented towards an equal treatment (convergence) of different information and communication infrastructures (i.e. technology neutrality). In the past, most countries have dealt with fixed telecom networks, mobile networks, and cable and terrestrial broadcast networks differently, especially in terms of, e.g. licensing procedures, interconnection rules, numbering, etc. The new regulatory framework shall facilitate the provision of various services over a number of different platforms. Additionally, the regulatory framework shall allow service providers to offer multiple services.

1.3 Content

Due to converged common digital platforms, different types of content that, formerly, were dedicated to specific industries can now be conveyed on different infrastructures. This presents regulatory problems that require actions. Such problems are related to the provisions of public service in the broadcast area and whether such provisions should be extended to the Internet or should lead to an abolition of public service rules? Further issues

deal with the treatment of different kinds of illegal or harmful information, distributed over the Internet and the possibilities to retain control of this. This goes hand in hand with the provisions for media responsibility and the right to freedom of speech that exist today for print and broadcast media and their application to the Internet.

As content is provided by other sectors, the laws and regulations from these sectors have to be streamlined in a converged framework. Thus, the question “*Does the country's legal framework contain the necessary legislation to support an ICT environment (e.g., intellectual property laws, computer crime, electronic transactions, data privacy and security)?*” has to be answered. In the end, a number of factors impacting the development are “international” in nature, and the capability to cope with these factors, through national regulation, are limited.

1.4 Institutions

Besides the aspect of convergence of equipment and transport and content provision on the horizontal level, there is also a vertical aspect in the sense that some countries integrate infrastructure regulation and content regulation. Such an approach leads to the question of which institutions shall be responsible for the execution of the new framework(s). This may be done by separated organisations that have to coordinate their approach closely or by one single merged multi-utility regulatory authority. Different approaches have been followed around the earth, e.g. integrated authorities in North America and rather separated authorities in Europe. In the SADC member states the assessment report shows that the integration of converged authorities is partly further advanced than the development of converged ICT policies. There needs to be an assessment of how the local environment would be best adaptable to the new structure in order to in the best possible way exploit the industrial opportunities in creating a new dynamic ICT sector encompassing hitherto all other affected sectors. In the end, the framework has to provide for the powers, procedures and functions of a converged regulatory licensing authority and adequate appeal institutions. Consideration also need to be given to the fact that in many countries, the history of the regulatory authorities is young and that the sector specific regulators have not yet achieved their full strength and final organizational design.

1.5 Bottlenecks

Bottlenecks and aspects of telecommunications regulation are mainly seen in the following areas:

- Market entry and licensing
- Interconnection / interoperability and access to networks including network unbundling, access and to content
- Access to frequency spectrum
- Pricing
- Universal service/access,
- Standards,
- Network security / robustness and
- Converged numbering.

The main target is the removal of barriers to entry. With regard to licensing, modifications to regulations have focused mainly on reducing market-entry requirements for new technologies by introducing a simpler and technology-neutral licensing regime. In the area of spectrum management, the concept of technology and service neutrality is being proposed, as well as spectrum trading and in-band migration, to allow the more flexible introduction of

new services and obtain a more efficient use of the spectrum. Interconnection ideas are also shifting and new concepts are being implemented such as “access” and “capacity based interconnection.” For purposes of universal service and numbering, technology-neutrality and inter-modality portability will be discussed. Many of these elements are e.g. contained in the framework of the EU which was passed in November 2009 as “EU review 2010” and will have to be transposed into national law by May 2011.

1.6 Consumer Interests

With the introduction of liberalization and the emergence of competitive and converged markets, consumer protection as well as consumer empowerment need to be further looked at. Even in liberalized markets with competition, counteracting market failures still may occur and there is need for preventing abuse (e.g. regarding price information, misleading sales, incorrect or incontestable bills, etc.) Further, consumer empowerment has to be pursued in order to assist in communicating the available choice of suppliers and achieving confidence (eg. regarding tariff publication and quality of service benchmarks, complaint handling, dispute resolution etc.). But it also includes aspects like data protection principles and privacy problems (e.g. unauthorized data collection and retention, intrusion, violation of anonymity, intrusion, disclosing of unauthorised content, etc.).

1.7 Mediation

The implementation of the new regime shall be a transparent process and shall respond to the needs of the actors in the market. This covers issues like standardized consultation processes including publication of consultation documents, deadline and format for responses, etc. Mediation of differences in actors in the ICT industry is critical to manage resistance to change. The turn-around time and processes for the implementation of the country's legal framework shall correspond with the changes the sector needs.

1.8 Competition and investment

A new converged legal framework shall continue to support full competition and encourage investments in the relevant sectors. In this respect, investments to facilitate broadband (for the transmission of voice, data, video, content) will play a crucial role. Thereby, a focus on backbone transport may become a key point.

2 Broad evolutions and specific changes proposed for the TCM protocol

Below we list our findings with respect to the TCM protocol and the changes we suggest to be included in order to update the overall telecommunications policy framework on the level of this important document for the SADC region. Again, these are preliminary proposals based on our findings so far. The quality of the proposals would benefit from more intense knowledge and background from stakeholders and could be modified after such feedback has been received.

- 1) With respect to the TCM protocol we have analysed chapter 10 referring to telecommunications. Hence, in light of the fact of the document stems from the late 1990s, in our view changes in the following areas are required in order to update the document to a more current and recent status of policy.⁸
 - Article 10.1 referring to the objectives takes its starting point in the existing networks of the time and describes the role of national telecommunications networks. Today, one would probably see telecommunications in a broader context with respect to its contribution to general economic and social development. Thereby, one also should consider developments which have already taken place in the last decade, i.e. the objectives should be based on the experience in the period 1998 through 2009 plus the forward looking objectives from today's perspective. Therefore article 10.1 regarding the objectives would have to be updated in this respect and should also encompass some new elements (which should aim at benefitting producers and consumers by e.g. cheaper services and / or better quality), such as considering
 - how to foster further investment into the market,
 - how to encourage the diversity of telecommunications and multimedia services,
 - how to take advantage of convergence of e.g. networks, content and services, and
 - how to support the overall economic and social development of each country and the SADC region as a whole.
 - Article 10.2 deals with telecommunications policy. The focus of the original protocol is very much on (i) the institutional setting, (ii) the provision of capital in order to expand networks and (iii) the expansion of the government's capacity to undertake certain actions in the telecommunications sector. Again, the last decade has shown some developments which should be reflected in the TCM protocol. In our view, the focus needs to be put upon the management of a more competitive market – African countries have experienced the entry of a substantial number of new operators and service providers over the last decade - opposed to a market which is dominated by a national operator. So the effects that competition brings to such markets and which also have an impact on e.g. the differentiation between retail and wholesale should be reflected in the telecommunications policy. However, also some underlying principles from previous times should be taken into consideration and developed further, such as the universal services/access concept – although we understand that this issue will be separately dealt with in a specific project. Furthermore, telecommunications policy matters should be more general in terms of including telecommunications and broadcasting and this would have to be integrated into article 10.2 of the TCM protocol under the heading of “convergence”.

⁸ Thereby, specific proposed changes will come in the next iteration of documents and therefore the list below only contains major observations and broad proposals, which are not yet specified in detail. Until the next deadline, we will deliver details also in the wording of the relevant articles of the TCM protocol.

part 2

- Article 10.3 deals with universal service in more detail. It needs to be noted that the text of the TCM protocol in its original format is very generic. The goals laid down in the principles contained therein remain valid until today. However, change has taken place in terms of the economics of providing universal service and universal access and also in the concepts underlying the provision of such services. We believe that in general the universal services/universal access policy does not need very much change with respect to the level contained in the TCM protocol. However, with respect to more detailed policies and the implementation of universal service/universal access concepts, such as has been undertaken in some of the other Regional Economic Communities, we see the need for additional provisions and new legislation. Therefore issues like the definition of universal service/universal access, the objectives of such policies, the role of the regulatory authorities in this process, rules for the provision of universal service/universal access, the availability of specific (universal) services, as well as the financing of the provision of networks and services need to be taken into consideration (funding) in more detailed rules and provisions, such as on the level of the SADC policy respectively the model bill. The assessment report points out that concepts for universal service / universal access have been introduced in many SADC member states but that implementation of financing policies and funds has displayed difficulties implying that collection of financial means for funds has taken place but this has not improved the availability of services and coverage with universal access. The TCM protocol therefore should put a focus on this in order to improve the situation. A further practical experience is the strength of mobile networks and services in customer awareness and usage. This strong market position of mobile operators is another aspect to be considered for future universal service / universal access policy. This is especially relevant as some markets in developed countries experience an increasing role of mobile networks in the provision of broadband services.⁹
- In article 10.4 of the TCM protocol, broadcasting issues are addressed. At that time when the policy was developed, an integrated convergent policy of telecommunications and broadcasting was not foreseen. Therefore, there is a need to further develop this area of policies with respect to a stronger integration of telecommunications and broadcasting ("convergence"). In many areas, broadcasting and telecommunications overlap with respect to the infrastructure and services and these areas need to be compiled under a common roof respectively a framework where a set of rules apply identically to telecommunications and broadcasting. This general principle has to be taken into consideration and has to be integrated into the TCM protocol from our point of view. On the other hand, it needs to be considered that the idea of convergence not only from the technical side but also as a regulatory policy principle will take time to be implemented. In many countries it will take substantial efforts to align the national regulation towards such a converged approach. In fact, the assessment report shows that a larger group of countries have a converged regulatory authority but not all countries have an ICT policy in place. Therefore, the changes to the TCM protocol should be realistic in terms of what member states could commit to in this respect.
- Network provision and maintenance is the topic that is dealt with in article 10.5. Again this issue arises from the past where public funding of telecommunications services and networks was the usual state-of-the-art provision of such networks and services. In the meantime, we have experienced that a more competitive development has taken place and state-owned telecom operators is not the most usual approach any longer. Therefore, competition will at least partly take care of the provision and maintenance of networks and services in order to satisfy customers. In our view therefore not all the content of article 10.5 still fits into a more liberalised framework and therefore some of

⁹ See Report on Broadband Access in the EU as of 1 July 2008, http://ec.europa.eu/information_society/policy/ecomms/doc/implementation_enforcement/broadband_access/Broadband_data_july_08.pdf, pp. 8.

the guidelines and policies laid down in article 10.5 should be struck. With respect to the development of the region this topic also should take into consideration the network interoperability and network integrity throughout the SADC member states. Beyond that the latter point is connected with the issues of co-operation stated in Article 10.6 of the TCM protocol.

- Article 10.6 deals with regional co-operation. This process had already started in the past whereas the TCM protocol and the subsequent documents on the policies and the model bill were a sign as well as a result of regional co-operation already. However, practical experience lead us to suggest that joint approaches to further policy making and harmonization could be further intensified in practical terms. The TCM protocol could therefore reiterate the member states' intention for such further harmonization. Additionally, in article 10.6 reference currently is being made to the development of telecommunications networks and services as a state-run businesses. Here, again reference to privately owned telecommunications networks and private operations of services should be included. For the specific situation in SADC member states CRASA has demonstrated its importance in bringing together stakeholders and developing guidelines and joint policies. This could be emphasized either in the protocol or in the SADC Telecommunications Policy respectively in the Model Bill.
- Article 10.7 deals with the regulatory framework. From historical grounds, of course some of the issues that are relevant today could not be foreseen more than a decade ago and therefore we see some necessity to add policy elements to article 10.7 which have to deal with relevant issues in a more open market such as licensing and market entry, access and interconnection, tariff regulation for retail and wholesale services, the management of scarce resources etc. This all reflects the technical and competitive development over the last 10 years.
- In article 10.8 the responsibilities of national regulatory bodies are contained. Here, the historic documents deal to a large extent with the setting up and the management of such an authority. As authorities have been implemented in a larger number of countries already as of today, there are some changes that need to be introduced to this article. Such changes have to comprise issues like the role of the regulator (not as a legislator but as an arbitrator in case of disputes), the functionality of dealing with convergence issues also in a regulatory environment, a higher relevance for issues that deal with competition between different operators etc. Another aspect to be covered is the role of competition law and the issue of co-jurisdiction between the Telecommunications Regulatory Authority and the Competition Authority, where it exists.
- Technical standards as contained in article 10.9 have to a certain extent lost their importance in terms of national legislation and policy making. Standardisation is rather an issue of regional or even international work in standardisation bodies (and less an issue of regulators or legislators). As the progress in standardisation over the last years has been enormous, one could doubt whether a regional policy is useful or whether this should be integrated in a more international approach. To overcome this potential conflict and to avoid the cornerstone of technical regulations being removed from the protocol, we suggest adding the reference to the international standards which may overrule the national/regional developments.
- Human resource development is dealt with in article 10.10. We understand that this was a very important issue in the late 1990s. Today, one could question whether it should be dealt with on a sector-by-sector basis only or whether it should rather be a responsibility of the member state in an approach covering a number of different industry sectors. Human resource development certainly is important in sectors which are crucial for a country's development. Additionally, in a competitive environment the market players have to take care of human resource and human resource development

themselves as they know that their success will depend on the skill sets of their employees and competent personnel. On the other hand, we have understood that there may be some shortcomings in terms of trainings and capabilities for stakeholders who are working in ministries, regulators etc. Managing respectively regulating competition creates a need for specialized know how on all sides (incumbents, new entrants, policy makers, regulators etc.). The availability of local know how in these areas is key to implementing the policies and achieving progress. Therefore, we believe that this topic needs to be integrated into this article of the TCM protocol.

- Article 10.11 contains specific rules on international co-operation. Regional harmonization (as a helpful tool for member states as well as a facilitator for more international coordination) is useful, however we believe that some points need to be updated in this respect. Therefore we propose to refine some of the wording in article 10.11 and add a new sub-paragraph which deals with the common work to regional harmonization based on the collection and publication of market data, to undertake benchmarking etc. and thus to exchange information in order to come to a more recent and up-to-date framework. This could go as far as defining goals for regulation and / or market performance to be achieved by regulatory action depending on member states' willingness to commit themselves to such "best of class" comparisons. A further result could be that market data be collected and integrated in a kind of implementation report thereby comparing each country to its peers in terms of achievement.¹⁰
- We have also reviewed chapters 13 and 14 regarding any suggestions to the institutional framework. Our conclusion is that these chapters describe the general method of working in the SADC region and how processes are to be initiated and conducted irrespective of the sector currently in the focus. Therefore, we do not propose any changes in these two chapters as such changes would require an analysis not only of the telecommunications sector and the assessment of the rules laid down there but also an assessment of all other sectors covered by the Protocol. The only specific change that could be suggested would be to replace "SATCC" by "SADC secretariat". We note that the Protocol offers in chapter 14 or 15 means to enforce its provisions if a member state was not complying with them. This could be an aspect to incentivize a better harmonization through implementation of jointly agreed policies.
- In accordance with chapter 14 of the Protocol we recommend to insert the changes to the TCM protocol as amendments and not as a new annex. The reason is that we will have proposals which amend the wording of chapter 10 but with basically the same structure of that chapter. An annex would rather serve to introduce a new topic or describe a new area to be covered by common policy.

¹⁰ See e.g. the implementation reports used in the European Union, http://ec.europa.eu/information_society/policy/ecommlibrary/communications_reports/annualreports/14th/index_en.htm

3 Broad evolutions and specific changes proposed for the Telecommunications Policies for SADC

In the sequel we provide a first review to telecommunications policy for SADC which lays down the principles of policy making in the SADC countries in an area which so far has been called “telecommunications” but which increasingly is addressed as “ICT sector”. Our objective has been to define broad evolutions and specific changes which need to be made to this policy in light of the available information that we have from benchmarking countries and other Regional Economic Communities, whereby we have focussed on COMESA and ECOWAS because these Communities have well documented and modern frameworks. The following changes and evolutions are proposed, whereby we highlight the area where we see a necessity for change as well as our reasoning for this. Thus, we again combine our recommendations and the motivation and rationale in one document. As before, this document was developed with relatively factual information from the country. Direct involvement and feedback from stakeholders is aimed at before completion.

- The telecommunications policy for SADC at the start contains an introductory information about *“decision of the SATCC committee of ministers”* as well as a *“preamble”*. Both of these texts would have to be substantially revised in light of the decision making process as well as the reasoning that led to a revision of the document. At the time of decision in June 1998, the telecommunications policies were compiled for the first time for the SADC member states and reflected the situation that was valid at that time. Now, new challenges resulting from technical and economic progress and the introduction and constant strengthening of competition have entered the agenda and a decade of developments and experience with the current regime can be taken into account. We would regard as important to reflect in the preamble what should be the general objective of the revised ICT / converged (telecommunications) policy. Furthermore, the policy document contains an *“introduction”* and part 1 refers to *“problems and objectives”*. Also these two parts would have to be substantially revised. However, we regard the items covered as important and therefore would keep them as agenda items and structural elements that also reflect upon introduction and the problem statement. In the introduction, reference should be made to the changes that have taken place over the last decade in terms of market development on a national basis, regulatory developments as well as technical and commercial developments. This should also be seen in light of a regionally harmonised approach with other SADC member states and the role of telecommunications in the overall economic and social context. With respect to the problem statement also the policy objectives, which at that time referred to affordability, efficiency, global trends, a competitive regional telecommunications sector, the creation of an environment for sustainable information communications development, the creation of partnerships, the development of a code of conduct in business practices (for which we could find no evidence that it was ever developed) as well as gender issues should be revised in light of technological and economic developments. Especially the issues of a competitive market, investments into the sector, and the integration and convergence of telecommunications and broadcasting are at least additional policy objectives which need to be integrated. Also the shift of roles from government policies and state-owned telecommunications operators to private operators and their role should be reflected in the policy statement. Clearly, and policy measures build on an analysis of the appropriate current environment and therefore, the update of the section of problems and possible solutions would be quite useful.
- Looking at the documents prepared in other Regional Economic Communities, one could identify the following objectives and actions also for the SADC countries: (a) an enabling policy, legal and regulatory framework; (b) fostering of research and

development in ICTs; (c) supporting investment capacity of network and service providers; (d) managing technology challenges; (e) removal of barriers to entry to new market entrants and management of competition; (f) baselining the current knowledge basis and further development of skills in ICTs; (g) affordability of services for users; (h) universal service/access; (i) awareness of literacy of population and potential users as a factor impacting interest in technologies and potential usage; (j) human resources development (with the reservations mentioned above); (k) mainstreaming of gender and other empowerment issues to ensure inclusivity, internalisation, participation and achievement of the right to communicate by all; (l) effective participation in regional and global e-governance; (m) creating an attractive business environment for a sustainable development of the ICT sector and (n) developing a policy framework for information (systems) security. Although all these items are not objectives in themselves, but partly also driving factors, a policy objective compilation of relevant issues comprising all these items would be helpful also for the SADC member states. Additionally, it could be an idea to add some objectives of an information based society e.g. regarding its contribution to economic growth, sustainable development as well as the improvement of the quality of life in the SADC states and to help to enable the creation of jobs and social-economic developments through ICT.

- In part 2, the policy document highlights the strategies for achieving policy objectives. Where the objectives are modified, also the strategies for achieving the policy objectives need to be amended as well. From our point of view this will mostly refer to section 2.4, which in the current form describes the role of government. The overall functions of the government, the policy responsibility as well as capacity building will need to be revised in light of the sector development. The role of government is today to a much larger extent than previously the creation of an enabling environment for the development of a sector guaranteeing a level playing field for competition and to a much lesser extent the role of a provider of telecommunications networks and services. In the SADC countries, network developments and service availability may today not be as developed as in other regions of the world. Therefore, the role of the government may still be stronger and government positions as stakeholders in telecommunications operations may still be relevant. In this case, it is important to separate the role of the government on the one hand as an owner (fully or partly) of telecommunications operators and its role as facilitator of sector development as well as the institution guaranteeing oversight by ensuring the existence and powers of the regulator.¹¹ All these functions need to be addressed in section 2.4. In section 2.5 of the original document, the potential different roles of the government is described. Also this section needs substantial revision. The reason is that also regulatory processes have progressed over time and new issues have sailed up on the horizon. Of course many of the bullet points mentioned on page 14 such as facilitation of market growth, independence of the regulator etc. are important. However in the meantime many more detailed provisions have become relevant such as the role of the regulator as an arbitrator in case of disputes, the development of a long term vision for the market in terms of its function to allocate resources such as spectrum, the integration of issues of common relevance for the broadcasting in telecommunications sector, to name only a few. Therefore, a fresh view on the role of regulatory institutions needs to be implemented in such a policy document. This will also later on have to be reflected in the model bill.
- Connected to the previous item, the issue of the establishment of the regulatory authority may be of a bit lesser relevance than previously because most of the countries have already implemented a regulatory authority. Therefore, we assume that some day-to-day processes have already been established and that there are working

¹¹ The status regarding the existence and independence of regulatory authorities as well as the existence of ICT policies can be seen in the assessment report.

organisations. However, there may still remain problems with respect to capacity as well as to independence issues. With respect to the latter, the appointment process and the remuneration are key aspects. Such problems have to be addressed in the policy document.

The review also needs to consider which sections of article 2.5.4 (mission of the regulatory authority) and 2.5.5 (functions and issues of the regulatory authority) have to be addressed. From our point of view, not all missions that are addressed in the bullet points in section 2.5.4 have been achieved but new missions may be added. The same holds true for the functions and issues of the regulatory authority in section 2.5.5. We see that at least spectrum issues are missing in the list of items of relevance. Spectrum issues are specifically relevant when a stronger integration of telecommunications and broadcasting is considered.

- We are not yet sure whether it makes sense to have check-lists such as contained e.g. on page 16 in the policy document. From our point of view, this is a very prescriptive form of policy making. We would prefer - instead of including a check-list of what the regulator needs to do - to add the elements of the check-list to the functions and issues of the regulatory authority and to address how these functions and issues should be taken care of. On the other hand, such a checklist may serve as a useful tool and guideline for Member States and therefore have a value in itself. This would speak in favour of updating the checklist. This will also be the way in which we will revise the SADC telecommunications policy document.
- We also feel that some of the regulatory issues contained in this list need to be expanded further. This refers to the issue of investment, competition, interconnection, tariff policies, consultation and international participation. All these issues have gained in relevance of the last years and need to be addressed in more detail in terms of giving the regulator a work programme which he has to adhere to. Issues which have lost in importance are topics like ownership and control, standards as well as research. International comparison¹² proves that these are issues of lesser relevance with respect to the work program of a regulatory authority on a national level.
- As regards section 2.5.6 through to 2.5.14, we believe that a number of these items should be addressed by practical experience already gained. This refers to the structure of the regulator, the composition of the authority, selection criteria, appointment and removal, staff etc. Nevertheless, the revised policy should also address these issues in light of the experience with the last decade and experience made on a national level. We believe, however, that this section can be substantially shorter with respect to the document of the SADC telecommunications policy.
- Section 2.6 addresses the role of investors and operators. This is an interesting item also in the current discussion because changes took place from the government being the sole provider of telecommunications networks and services to a competitive environment. Therefore, section 2.6 needs to address the issue of what the roles of the different players are and what the private sector should do. The COMESA policy has some interesting aspects in this regard as it contains that the policy makers in any country should encourage all interested parties (and this also encompasses the privately owned operators) to involve themselves. Thereby, the policy refers to issues like the provision of universal service/access, attempts to attract more private sector resources and to foster partnerships between private and public sectors, to develop a sector with efficiency, credibility, commercial integrity and good corporate governance, to provide quality and sustainable service with choice to consumers and to keep abreast with and participate in developments in ICTs within Regional Economic

¹² See e.g. the focus of the supplementary acts in the ECOWAS countries as well as the focus of the EU 2010 framework.

Communities (REC). We feel that these issues are a bit too generic in order to live up to the expectations of concrete policies as regards investors and operators and that therefore aspects like the treatment of new investments by regulatory authorities and especially legal certainty about investment from operators should also be included. Also, we believe that some aspects that are contained in the SADC policy from 1998 may be of lesser relevance, such as the restructuring of the historic operator, and issues of exclusivity and competition. Generally speaking, the reform of the relevant frameworks should contain (if not already achieved) a clear path towards a fully competitive environment without any restrictions to enter the market. However, where resources are scarce (such as for radio spectrum) of course allocation principles need to be included. Also the item of privatisation and competition strategies needs to be reviewed in light of the developments that have taken place in the sector over the last 10 years. Thereby, results from the assessment report will be reflected in drafting the text.

- Part 3 of the policy document covers some policy and regulatory principles where in principle the document refers to specific items that require a certain kind of regulatory support and work. In this respect, we feel that the issues that are addressed there (from universal service and universal access through to regional and international participation) all remain relevant and important for the future, however that some new issues have sailed up on the horizon which need to be addressed. These issues are:
 - Access topics and thereby we refer to all kind of access to networks which are “beyond interconnection”. Interconnection refers to a specific type of exchange of voice traffic between operators whereas general access issues are broader. Therefore, access topics need to be included and combined with the agenda on interconnection.
 - “Rights of way”: Rights of way are a scarce resource and they are gaining importance in countries where new telecommunications infrastructure is being deployed and therefore they are relevant in order to avoid any hurdles to undertake investment and to roll-out networks.
 - “Dispute resolution mechanisms”: In a more competitive environment than previously, it is to be expected that different business models and different operators (incumbents vs. new entrants, mobile vs. fixed) do not agree on a number of items. This could refer to interconnection, access, tariffs, universal service etc. For these cases, the regulatory authorities need to be prepared to undertake dispute resolution in a short timeframe in order not to uphold market developments. Thereby, one must expect intensified dispute “likelihood” at the beginning. The reason is that operators must first seek to establish themselves and try to reap the potential benefits from “access rights” This will lead to a large number of disputes in the beginning of liberalization and the regulators need to be prepared for that
 - Consumer Protection / User rights: The basic principle that regulators must observe should be to set up and maintain a policy of information to consumers on their rights and obligations with regard to each ICT sector. They have also the mandate to investigate consumer complaints against operators/providers for violation of terms of services, disputed bills, maintenance and repairs.
 - Data protection could be a further issue of relevance. On the one hand, data protection is an item of general relevance across sectors. On the other hand, ICT is an area of the economy which is relying on the exchange, usage and storage of data electronically. Therefore, specific provisions for data protection in this sector may be worth considering. Closely related to this topic is the issue of internet policy and cyberlaw. In order to encourage usage of such services, the economic models for usage of new services should be clarified.

As a next step, an environment has to be created that ensures security of personal data, privacy and trust into such communication tools. This issue has an impact on the design of the overall telecommunications policy and reference to the item in the TCM protocol should be made.

- A further item that should be addressed in the principles in part 3 are broadcasting issues in order to fulfil the goal of convergence.
 - And finally, two items that should be addressed in the principles is the role of the regulator in terms of the development of policy for a converged market as well as general issues on sector development.
- We propose that these items are added to the list of principles in part 3 and we furthermore propose that the items that are already listed there are updated. Comparing this to the COMESA policies we find that there also the item of price regulation has been added (combined with tariffs), orbital slots have been added as an item relevant for spectrum frequency, domain names have been included, gender issues have been added, skill development and transfer of technology has also been added. With respect to regional and international participation, some sub-items have been addressed referring to (a) fair trade/competition issues¹³, (b) research and development, (c) content regulation, (d) information society and (e) postal services. This implies that a quite extensive editing for the items that are on the agenda will be necessary and furthermore additional wording for the items that suggested to be added. To achieve this, a broadening of the knowledge-basis of the relevant participants for policy development, legislation and regulation is key to achieve progress. This feeds back into the discussion about enhancing capabilities of major stakeholders in the market.
 - Looking at the COMESA policy, which was developed a few years after the original SADC policy, it shows that some of the items have remained in a very similar wording and also new items have been added. An interesting aspect thereby is e.g. that access to transmission to services for broadcasters is an issue and that in the chapter on interconnection, a number of topics have been specified. For consumer protection a new section has been worded. However, COMESA has not addressed dispute resolution, rights of way and ICT policy measures. These topics are gaining in importance the more countries open up to full competition.
 - The policy document ends with a glossary of terms. This glossary of terms has to be substantially revised and updated. A number of the terms are not relevant anymore in today's ICT world and some of them are probably are not relevant in terms of definitions, however, many new expressions have become relevant and need to be taken into account. This does not only refer to new terms but also to concepts of specific policies, such as universal service, universal access etc.

¹³ The major challenge with fair trade issues is that responsible ministries are not well informed on the operations of these principles as there is no strong co-ordination in activities between Ministries responsible for ICT/Communications and those responsible for Trade hence you find that very few member states have acceded to the international agreements dealing with communications issues e.g WTO Reference Paper on Telecommunications. The regional body has to undertake awareness programmes on these issues to responsible ministries.

4 Broad evolutions and specific changes proposed for the Telecommunication model bill for SADC

The telecommunication model bill for SADC is dated 18 June 1998 and reflects the telecommunications policies for the SADC countries which the member states had agreed upon previously. It is an outcome of the SATCC committee of ministers based on the TCM protocol described above. In order to assess which changes and developments have to be taken into account and how a broad evolution and a list of specific changes shall be developed, the model bill has to be treated in a similar way like the telecommunications policy document. The changes that we propose for the telecommunications policies in terms of orientation towards more recent developments – mainly driven by emerging convergence resulting from economic and technical progress as well as developing competition – also need to be reflected in the model bill. As regards “options” it needs to be noted that a major revision of the Model Bill is a “must”. Especially due to the fact that some countries are still behind in terms of transposing current SADC Model Bill into national legislation, action is needed. The reform of a law is not something that can be done permanently and continuously. Usually, legal reform is undertaken every few years when a larger number of changes are waiting to be implemented. This is the case with the Model Bill. It requires major revisions in many aspects and the time is right to introduce these changes. To this end, the list below contains our proposals to this end and the reasoning to suggest these changes which will be worded in more detail in the next step. Again, further feedback from stakeholders would help to optimize the proposals in light of experience from national implementation and application.

- In part I of the document, the definitions are contained. These definitions need to fulfil two goals from our perspective. The first goal is that they need to encompass exhaustively all relevant terms that are used in the bill and which are used in the market as of today which need interpretation and explanation. This means that the list of definitions needs to be updated. Secondly, the definitions should of course be in line with the definitions used in section 4 of the telecommunications policy for SADC. This means coordination has to take place between the definitions contained in both documents. Ideally, they should be identical, unless it is necessary to define specific terms for policy purposes which are not contained directly in the model bill (and vice versa where the bill uses more specifically defined terms and expressions).
- In part II the establishment of the regulatory authority, its powers and constitution as well as qualifications are addressed. Although in most countries a certain process of nomination and work at the regulatory authority has been established over the last decade which could lead to the conclusion that such processes, rules and provisions are in place (“day-to-day routine”), reality shows that these processes are not that well established yet and the assessment from some countries points to certain practices which could undermine the independence of regulatory authorities. What is important is indeed the continued independence of the regulatory authority and the transparency of its processes and decisions. Therefore, the model bill should continue to give clear guidance to member states as to the criteria and processes to fulfil e.g. with respect to the nomination of independent personnel.
- In part III the general powers and duties of the authority are described. Here, from our point of view a certain update will be necessary in order to also reflect upon the items that are addressed in the SADC policies. There, in part 2, we dealt with issues like the role of government, the role of the regulator and thereby with specific details of its missions, its functions, the check-list of its activities, its structure, its composition etc.

part 2

We believe that the changes we propose in part II of the policy document also need to be reflected in part III of the model bill.

- Part IV reflects upon meetings and proceedings of the authority and in our view there is no necessity that this remains a separate part of the bill, but it could be integrated in part III as it is a process related to the regulation of the work of the authority. However, for reasons of comparability the text may also stay in such separate section.
- In part V dealing with the licensing of telecommunications service providers, we propose that changes are introduced in order to facilitate market entry and to contribute to a competitive market. To that end, the restrictions for market entry should be removed or at least loosened in order to allow market entry with a less strict regime (such as e.g. general authorization, unified licensing or other forms) and thus to allow a new set of operators and service providers to enter the market. In principle, restrictions for market entry in the fixed network need justification- Where scarce resources are required (such as spectrum and partly also numbering and rights of way) certain rules and provisions may be necessary to organise market entry. Therefore, the rules we propose would encourage market entry based on an easier regime that would allow more intensive market entry. On the other hand, where well-reasoned arguments exist, regulators should have the option of a rather managed liberalization process if they can convincingly argue the benefits of such approach. The issue will have to be reviewed over time to enable member states a different “speed” in order to arrive at a fully liberalized market.
- Part VI deals with the duties of public telecommunications service providers. These duties are quite extensive in their current status. However, it is important to have a general list of rules and obligations that apply to operators and service providers that enter the market. This is especially the case if one does not have a very restrictive market entry regime. Therefore, this part VI contains a lot of rules that address the behaviour of telecommunications operators on the market. What we miss here is a differentiation between different kinds of operators and service providers. Many of the rules proposed (e.g. tariff approval, universal access, costing information etc.) cannot be provided by all operators due to their different market position and their participation in the market. Especially some new entrants could be overburdened with such requirements whereas other new entrants have managed to achieve a leading position and are now enjoying a strong market position. The original model bill lacks differentiation between what we call companies with significant market power and others with usually new entrants among them. Companies with significant market power that have the possibility to influence market developments to a certain extent by their behaviour need to be regulated in a stricter sense by asymmetric regulation based on the finding of SMP. Therefore, it may be wise to differentiate the provisions in this part according to whether a company is dominant/enjoys significant market power or not. This will require undertaking market analysis before taking such decisions and this market analysis would be an element that we see as a new section of the model bill that should be introduced in order to streamline regulation towards those operators that may be related to competitive problems. We suggest outlining this in a separate part of the model bill and then also to detail the remedies that could result from SMP finding.
- In part VII the model bill deals with additional powers and responsibilities of the authority regarding equipment, standard and type approval and inspection. The section needs to be updated in light of international developments, especially work in standardization bodies.
- Part VIII referring to the management of the use of radio frequency spectrum only contains three paragraphs which in our view need to be extended in light of technical and market developments. One aspect is the responsibility of the authority for broadcasting as well as telecommunications purposes. This is already contained in

section 52 of the model bill. However, in the future a more strategic planning in order to develop a spectrum strategy and spectrum plans will be required. Also the definition of standard procedures for the allocation of spectrum will be necessary. It should be up to the individual decision of the regulator on a case-by-case basis which allocation procedure to use, but rather guidelines should be defined on how the authority usually addresses such topics. This also encompasses an element of how to develop strategic policies for a spectrum allocation, how to discuss and consult that with the market. The ECOWAS supplementary act on this field of policy provides an interesting example of how regulation could look like.

- Part IX contains the issue of access to and of use of public and private property. This is the issue of rights of way which is not addressed in the policy document, but is fortunately reflected upon in the model bill. It will have to be updated also in light of developments on the basis of a World Trade Organisation.
- Part X deals with offences, penalties and enforcements and part XI with the restructuring of the incumbent national operator. With respect to part X, such provisions are standard elements of telecommunications bills around the world and probably only need to be updated in light of technical and commercial developments.
- Part XI regarding the restructuring of the national operator should be shortened or struck altogether because this is not any legal task any longer. Most countries have gone through privatisation processes or restructured the national operator already in the past. Therefore, it is very difficult, especially in an environment which already has turned into competition to revise these provisions and to have this item furthermore on the agenda. Therefore we believe that this should not be an element of the model bill any longer.

We believe that there are some items that need to be additionally addressed in the model bill, thereby also reflecting upon changes that we propose for the SADC policies. This refers to issues like significant market power (already addressed above under the term market analysis), consumer protection, tariff approvals, universal service / universal access, (interconnection and) access, broadcasting / convergence, dispute resolution. Some of these items are already contained in part VI regarding the duties of public telecommunications service providers, however there we rather find provisions that address how operators should deal with these items. From our perspective it is likewise important to determine what regulators need to do, i.e. to provide a list of “action items” for the national regulators. In this respect, also other items that were addressed e.g. in the COMESA policies regarding items of regulatory authorities should be added to the list. We intend to propose separate sections on most of these items.

Annexes

> INTERVIEWS' REPORT

1 Background and project introduction

For the project HIPSSA / SA-1 on the *SADC ICT policy and legal framework review update* this document contains the interviews' report. The project in general covers the support for harmonisation of ICT policies in Sub-Sahara Africa and the HIPSSA project is part of a programme funded by the European Committee and the International Telecommunications Union covering all ACP countries.¹⁴

The countries from SADC have in the late 1990s decided to formulate a joint approach to telecommunications policy. This has been laid down in the TCM protocol, the SADC telecommunications policy as well as the telecommunications model bill for SADC countries. These documents originate in the period between 1998 and 2000 (with some further specifying policy documents for specific issues of telecommunications policy being passed thereafter as well) and in the meantime substantial changes have taken place and progress as regards the opening of the markets towards competition as well as technical and economic progress which have lead to new evaluations of the exiting markets. To this end, these changes have to be reflected in the policies that the countries have decided to jointly adopt. Therefore, the time has come to review the existing policies, the model bill as well as the stipulations of the TCM protocol in order to update these documents to support the way forward towards more competitive developments in the next years and to take account of the impact of convergence and other technical and economic developments on the regulatory environment.

The project consists of several steps of which the interviews' report which is being provided here was foreseen to be the initial step. Further steps contain an assessment report of the policies that have been implemented in the 15 member states (and which was delivered on 13 January 2010), as well as concrete changes to the existing documents as well as the development of the specific ICT convergence policy for SADC member states. However, due to low response to questionnaires sent out, some interviews could not be conducted before March 2010.

2 Purpose of interviews and methodology

2.1 Purpose of interviews

The purpose of the interviews is to learn from stakeholders active in the market about their assessment of the situation as regards the supply and demand for telecommunications and broadcasting (in the sequel jointly referred to as "ICT") in the SADC member states. Desktop research as one of the other pillars of analysis can help to come to certain conclusions, however, the feedback from persons directly involved in the countries is a valuable source to be able to interpret and understand more specifically what is going on in the specific countries. Therefore, a session of interviews was considered to be helpful at the start to already learn and understand and gain some information about the direction of the market and the most pressing issues. Furthermore, the intention of the interviews was to make

¹⁴ It builds on the experience gained and the lessons learned from a previous EC-ITU pilot project successfully implemented in West Africa between 2004 and 2006. It aims at supporting the African Union, the Regional Economic Communities (RECs) and respective countries to develop, promote and use harmonised policies and regulatory frameworks for the ICT market as well as building human and institutional capacity in the field of ICT through a range of targeted training and knowledge sharing of measures.

stakeholders aware of the attempts being undertaken to modernize the framework in SADC member states and to incentivize them to supply input to areas in which they believe change should be introduced. Their views were to be reflected in the development of the revision of the policy documents.

2.2 Selection of stakeholders

After the ITU had selected the consultants to conduct the work, the first task was to find out which stakeholders should be interviewed. There was an agreement that selection should be made amongst the following stakeholders:

- operators (ideally a mix of incumbent operators and new entrants) as well as operator's associations. As "operators" we define "telecommunications operators and service providers".
- Broadcasting corporations
- policy makers responsible for telecommunications legislation for example in parliament and / or ministries
- regulatory authorities
- users' associations taking care of consumer rights.

Looking at these five groups of stakeholders and the 15 countries (SADC member states) the list of stakeholders to be interviewed was quite extensive. Additionally, it would have been of interest to also interview some of the institutions that are responsible for cross regional issues such as CRASA or the SATA. The group of stakeholders is defined in more detail below.

2.2.1 Legislators

Legislators are those institutions which decide about the relevant legislations such as telecommunications law or secondary legislation. One usually finds them in parliaments and with some responsibility for the agenda of telecommunications and ICT.

2.2.2 Ministries and Policy Makers

ICT policy in reality is not prepared in parliament but by experts who work in the ministry responsible for telecommunications and / or ICT. This allocation of tasks to certain ministries can be quite different across countries. In some countries telecommunications and IT agendas have specific ministries, in other countries it is allocated to for example at the Ministry of Transport or even to the Ministry of Economy. In those ministries responsibility for the assessment of legislation is vested and also preparation of text for future policy initiatives is undertaken. This helps to implement government policy in the form of telecommunications legislation.

2.2.3 Regulators

Opening up telecommunications market to competition has all over the world required implementing institutions to oversee the development of competition and to have the power to intervene in the case of disputes or which have certain administrative functions to implement the provisions of the law such as licensing, spectrum allocation etc.. These are the national regulatory authorities which have also been implemented in SADC member states over the last years. They are very important stakeholders in terms of their direct connection to the market and the detailed information about relevant policy issues in the area of ICT. They also have experience in executing the legal provisions for example in dispute resolutions, licensing, spectrum allocation etc.

2.2.4 Regional bodies

Regional bodies describe organisations which work across borders and which try to assemble information (and potentially to support in the development of joint policies) which is relevant for a number of jurisdictions. This may comprise lobbying organisations for a certain group of industry players or in the case of the SADC member states the organisation of regulators for these countries. Therefore, CRASA (for the telecommunications sector – and there are similar organizations for other sectors) has an important role to play and the information provided by that organisation (partially the information from the homepage) is valuable to understand the different achievements in terms of telecommunications policy and liberalisation.

2.2.5 Telecom operators (SATA)

The telecommunications operators are the one group of industry players which form the supply side of the market. There is a very divergent mix of operators active in the market ranging from incumbent (historic) operators to new entrants. Thereby, the dynamic of the market has especially become relevant in the mobile arena where penetration rates have been soaring. Most countries, however, on the fixed net side experienced rather low penetration and a very slow development of these markets. In light of technical developments and the worldwide discussion of next generation access networks it remains an important task to understand the position of telecommunications operators, the value chain and the services they provide. Also, for any investment issues in those countries, the position of telecom operators is important to be understood. In light of the different developments of fixed and mobile markets, questions will have to be discussed with respect to the growth of internet penetration and usage and the availability of backbone transport networks.

2.2.6 Broadcasters

The broadcasters form the other elements of the supply side of the market. In a converging world, broadcasting and telecommunications become more and more integrated and therefore the business models overlap to some degree as regards the use of infrastructures (or at least resources for these infrastructures) and the service portfolio provided. In a converged world, industry players from the two sides will have to find agreements or have to be regulated according to certain standards in order to continue to be active in the market. Therefore the position of broadcasters as regards their outlook on the market development is important to be assessed.

Broadcasters and telecom operators have one issue in common and that is “convergence”. The previously separated fields of operation become one and therefore an increasing overlap of common interests will arise.

2.2.7 Consumer organizations

Consumer organisations are the voice of the users. Users have differentiated needs and depending on their living conditions, their locations as well as their income, they will have different positions in terms of what they require from the market. Business users have different communication needs and require different quality of service (and also are willing to pay different prices) compared to residential users in rural areas where the aspect of universal service provision is much more relevant. To take into account what consumer organisations have to say in terms of pricing, availability of service etc. is important to assess the extent the telecommunications policy so far has achieved its goals.

2.3 Description of methodology: questionnaire and telephone interviews

As the SADC telecommunication policy, the TCM protocol and the model bill cover all areas of policy it is important to get a full picture. Therefore, the consultants together developed on the one hand a list of stakeholders trying to find in each country representatives of the groups of stakeholders to be addressed and they also developed a questionnaire in cooperation with the ITU to be able to conduct structured interviews or at least to get structured answers from the stakeholders so that they could be analysed in a standardised procedure and the answers could be compared. This questionnaire was developed in early December 2009 and after completing the list of stakeholders, the questionnaire was sent out starting on 21 December 2009 to almost 100 stakeholders. Due to the different official languages in the SADC member states, the questionnaire (which was in English) was sent out by an accompanying email in English, French and Portuguese to the different recipients in the different countries.

The idea was on the one hand to get written answers to be analysed for the reports and on the other hand to motivate some of the stakeholders to conduct telephone interviews. The contents of the questionnaire can be seen in Annex A to this report. An overview of issues covered can be seen from the figure below:

1. Extent of implementation of previous SADC policy	6. Incumbent's role	11. Policy areas
2. Content and motivation of most recent policy reform	7. Role / Impact of harmonization	• Customer protection • Interconnection • Standards • VoIP • Tariff regulation • Internat'l. representation • Spectrum regulation • Convergence (....)
3. Impact of regional harmonization on national legislation	8. Transfer of competences to regional body?	
4. Contribution of efforts to availability and affordability	9. Role of SATA	
5. Fulfillment of SADC policy goals	10. Role of regulator	12. Achieved competition
• Universal Service • Investment • Independent regulator • Capacity building • Strategy • Transparency • Judicial system	• Customer protection • Independence • Procedural rules • Content / Convergence • Contribution to society	13. Areas where reform is needed nationally
		14. Areas where reform of SADC documents is needed
		15. Impact of regional policies on the national level

Due to the holiday season it was difficult to attract feedback from the market to the questionnaires. By 11 January 2010, no replies had been received and therefore 87 reminder e-mails were sent out to the stakeholders. By 20 January 2010 only 2 e-mails were received as feedback, in both cases stating that the person / organization we had contacted did not feel to be the appropriate point of contact. Personal experience of one of the consultants from interaction with some of the stakeholders from a conference shows that there has been a lot of human resources movement both at the Ministries and Regulatory Authorities. As a result the e-mails that had been sent out may have reached recipients who are no longer associated with the institutions or Departments. At the same time regulatory authorities have been changing their names to incorporate the ICT element. By so doing the e-mail addresses may have changed as new domains are implemented. Whether this is the case cannot be answered for sure because also the feedback in terms of "delivery failure notices" was rather low.

Furthermore, the information was shared that the e-mails had not being treated as priority because other events were taking in the region in parallel.

As a consequence of this, not all information was provided in a timely manner. However, the consultant team was able to hold bilateral meetings and conduct interviews during the workshop in Johannesburg from 8 to 10 March 2010 and thus to add information to the reports and to fill out some questionnaires together with delegates.

3 Results

3.1 Results per topic

3.1.1 Status of policy and impact of regional harmonization (questions 1 to 4)

Most countries that provided answers confirmed that the SADC policies had been instrumental in their national legislation to foster reform of the telecommunications sector. The policy documents of the late 1990s have been taken into account by policy makers in those countries to a considerable extent and are also seen as major facilitators for progress of the industry in the country. Several countries reported about recent developments in legislation such as passing of laws on converged market and regulatory environments, the most recent being Namibia and Zambia.

3.1.2 Fulfilment of policy goals (question 5)

Those countries that have taken SADC policy documents into account also have achieved the 7 goals listed in question nr. 5 derived from the SDAC policies. Some countries mentioned, however, that there was not a clear and communicated overall strategy, at least not in one single focussed document in their jurisdiction.

3.1.3 Role of incumbent (question 6)

The role of the incumbent is viewed very differently in the countries which provided answers to the questionnaire or which were available for interviews. Thereby, it needs to be observed that replies were only received from Ministries and / or regulators so that the picture of these answers may be biased. With input from SATA or the broadcasters, the picture may look different. However, a slight majority of the answers which were received indicated that the respondents did not see any specific issue to be taken care of regarding the incumbent. Some stated that the fixed line incumbent only played a minor role as mobile communications dominated the market and therefore, there was no real “incumbent”. Others stated that given the increasing role of mobile and the still “infant” status of fixed line penetration previous “incumbents” should at least be entitled to also run a mobile operation to be able to participate in the competitive and technological developments.

Two countries stated that they believe the fixed incumbents maintain a major role for the future, especially with respect to infrastructure rollout.

3.1.4 Comparison of SADC policy against other regional harmonization approaches (question 7)

The hypothesis stated in the questionnaire that the SADC framework gives more “freedom” to member states to take decisions by themselves within a broader “range” of options was confirmed. Several member states regard the SADC framework as less prescriptive compared to the other RECs in Africa. This was also highlighted as a benefit and something that should be maintained in the future in order to allow countries their own sovereignty.

3.1.5 Role of regional bodies (SATA, CRASA) (questions 8, 9)

In general, the answers to the questionnaires and the interviews were positive to both CRASA and SATA in terms of the role they play in the market in order to disseminate information, collect opinions and data and facilitate exchange of knowledge. This, especially with respect to CRASA, has supported the competitive development in the region.

3.1.6 Role and achievement of regulator (question 10)

As regards the functions of the regulatory authority and the areas identified as important in the report, most countries answered positively to all the sub-questions. The regulators are independent and accountable, however, public consultations process and a transparent discussion is not applicable to all countries. There were at least countries which stated that such provisions were not in their national legislation but that the regulatory practice considered this.

3.1.7 Policy areas (question 11)

The trend regarding policy areas covered by national legislation indicated clearly that most countries have policies for all the issues requested in place. In some countries, cyber law and the respective framework is not yet developed or implemented. Also, competition law is not a tool readily available in all jurisdictions although several countries pointed to the recent establishment of such authorities. Question 11.12 was of specific interest as the topic whether SADC should have more extensive powers to introduce regulatory harmonized measures was seen with reluctance. Only one country gave a positive answer. All others felt that this approach may be too interventionist in terms of sovereignty and they were in favour of a framework that maintains the ability to cope with problems directly on the local level. This does, however, not undermine the appreciation of countries towards the overall SADC framework and its contributions.

3.1.8 Status of competition achieved (question 12)

The status of competition achieved is regarded as positive. Most countries have several mobile operators and a lively ISP environment, in the fixed network however, the development is less dynamic.

3.1.9 Areas for action (questions 13 to 15)

Most countries expressed satisfaction with what has been achieved, however, certain areas were identified where respondents indicated they were not adequately dealt with at the national level and more focus by SADC was desired. Such areas comprise

- Universal Access / Service Policy especially the implementation of workable Universal Access Fund implementation and programmes (the “Play” component of “pay or play”)
- Convergence connected to technical and service neutral licensing
- Number portability
- Establishment of converged regulators and definition of convergence to denote the scope of the regulator’s field of work
- Market analysis, competition analysis and dominance
- Cyberlaw

3.2 Results on a per country basis

3.2.1 Angola

From Angola, no filled out questionnaire was received in reply to the various contacts made to stakeholders. Also, no complete interview could be conducted during the SADC Technical Committee Meeting in Johannesburg in March. Therefore, no specific information was given for this interview's report. Analysis on Angola relies on the desktop research conducted for the assessment report undertaken by Angeline Karonga. However, contact was made to Angola's representatives at the workshop and they announced to report back home and try to bring the responsible stakeholders to the table.

3.2.2 Botswana

From Botswana, no questionnaire was received. However the representatives present at the SADC Technical meeting were forthcoming with recent information regarding developments in policy and regulatory development. A new ICT policy dubbed Maitlamo is in place.

The policy has completely liberalised the ICT and the liberalisation process lifted previous restrictions on the provision of VoIP, self provision of transmission links by mobile operators and allows the existing fixed line and cellular operators to provide all telecommunications services irrespective of whether the service is transmitted wirelessly or on a wire. The policy also provided for the liberalisation of the international voice gateway, which is in line with the SADC recommendations. The incumbent operator does not enjoy any more privileges but operates at the same level as other players.

The role of CRASA and SATA is viewed as very important and Botswana is an active participant in the activities of CRASA but like any other sovereign state they want their sovereignty respected by SADC and CRASA in that the policy and regulatory frameworks developed by these institutions are not prescriptive. The following legislative frameworks are in place: Telecommunications Act 1996 and the Cybercrime and Computer Related Crimes Act 2007. An independent regulatory authority has been in place since the promulgation of the Telecommunications Act 1996.

The new policy framework also establishes the Universal Access and Service framework with a Universal Access and Service policy being in place. Regulatory tariff policies are in place as well as spectrum and numbering management regulations. The regulatory authority also acts as an advisor to the National Broadcaster Board.

3.2.3 Democratic Republic of Congo

From DR Congo, no filled out questionnaire was received in reply to the various contacts made to stakeholders. Also, no interview could be conducted during the SADC Technical Committee Meeting in Johannesburg in March due to lack of participation from DR Congo. Therefore, not specific information was given for this interview's report.

3.2.4 Lesotho

Lesotho submitted a questionnaire prior to the workshop. In short, it contained the following answers to our questions

- With respect to question 1 on the extent to which harmonised SADC policies have been implemented, Lesotho states to have implemented these policies completely however, with differences depending on the period of introduction and the urgency.
- With respect to the second question the most recent policy reforms, reference is made to the review of telecommunications and broadcasting sector with reforms in 1999 and 2006 and a current review ongoing.

- Regarding the role of regional harmonisation in implementing national policy (question 3) this is acknowledged as highly important. It is also stated that these regional policies contributed to an improvement of the market situation regarding telecom network and services.
- With respect to question five regarding the achievement of SADC policy goals in Lesotho the first six items are answered positively (set up of universal service policy, increase of investment, independent regulator, capacity building, clear and communicated strategy for policy, sharing of roles and responsibility in a transparent manner). With respect to the question of possible constraints or support of the institutional setting Lesotho states: *“sector policy is constraint / supported by overall institutional setting, administrative justice in the country is ok, all policy is in the public domain, institutions are accountable and actions are transparent, institutions have to give reasons for their decisions, recourse law is available in the national legal institutions.”*
- As regards question 6 on the incumbent, it is stated that the role of the incumbent in terms of fixed and mobile services has transformed and it is continued to play a leading role on the development of this sector.
- As regards question 7 on the freedom to manoeuvre for SADC countries in greater extent than in other RECs, Lesotho agrees to this view.
- Regarding question 8 and the role of CRASA Lesotho thinks that CRASA has facilitated implementation to a large extent.
- Also, to question 9 Lesotho thinks that SATA ensures harmonisation of sector policy by the service providers.
- Question 10 lists the role and function of the regulator. Answers are as follows:
 - Customer protection: specific provisions in the communications act.
 - Independence of the regulator: respective practice by market participants.
 - Process handling / case transparency: ensured, amongst others by consultation processes.
 - Regulation of content issues by the regulator: yes, there is also the formulation of a new communications bill.
 - Contribution of the regulatory authority to public interest: yes.
- In section to question 11 questions regarding the SADC policies for regulation were contained. In short, the answers from Lesotho are:
 - Consumer protection: yes.
 - Standards: yes.
 - Interconnection: yes.
 - Voice over IP: no.
 - Tariff policies: yes.
 - Consultation and international participation: to a great extent.
 - Information collection and dissemination: yes.
 - Spectrum regulation: yes.
 - Policy development for convergence services: yes.
 - Cyber security: in progress.
 - Possibility to move issues forward by stakeholders, staff training etc.: no.

- Stronger impact of SADC to issue regulations which are binding on member states requested: yes.
- Stronger role of convergence issues: yes and it is proposed to have a model act on this.
- Framework for competition regulation: yes. It is stated that the Lesotho act accommodates competition issues, but it is unclear whether this is a separate act or integrated in the telecom act.
- Licensing and market entry policy: yes.
- Policy development regarding investment: yes.
- On question 12 dealing with the status of achieved competition Lesotho mentions that the regulation of services has taken place and that a lot of issues spill over from South Africa as the neighbouring country. Further convergence of communications and multimedia is expected.
- On question 13 with respect to possible lacks in the national policy, Lesotho thinks that it is in the process of addressing all areas that require further developments.
- Regarding question 14 on issues Lesotho feels should be addressed in the upcoming additional policies it is mentioned that convergence, implementation and enforcement of the policy in model legislation are important factors. This is interesting in light of Lesotho seeing a stronger role of the international institutions, quite opposed to other member states of SADC. This is a areas of potential conflict.
- Finally on question 15 addressing areas of policy development where the regional review and update provides substantial input on the national level, Lesotho refers to accommodation of newly developed technologies which are not sufficient and the processes of introducing these technologies by the member states are not clear.

3.2.5 Madagascar

Madagascar was disregarded from the study on the advice of the SADC Secretariat due to is temporary suspension.

3.2.6 Malawi

From Malawi, no filled out questionnaire was received in reply to the various contacts made to stakeholders. Also, no interview could be conducted during the SADC Technical Committee Meeting in Johannesburg in March due to lack of participants from Malawi. Therefore, not specific information was given for this interview's report. Analysis on Malawi relies on the desktop research conducted for the assessment report undertaken by Angeline Karonga.

3.2.7 Mauritius

From Mauritius, at first no filled out questionnaire was received in reply to the various contacts made to stakeholders. However, an interview could be conducted during the SADC Technical Committee Meeting in Johannesburg in March. The result was summarized in the questionnaire and resulted in the following. The text below is based on “draft answers” which were yet to be confirmed by the regulatory authority's key personnel:

- With respect to question 1 on the extent to which harmonised SADC policies have been implemented, Mauritius states to have implemented these policies.
- With respect to the second question on the most recent policy reforms, reference is made to the review of telecommunications and broadcasting sector. A major policy reform took

place in 2001 with the enactment of the Information and Communication Technologies Act 2001 and in 2003 with the adoption of the new Licensing Regime which has been described in the “Annual Report on the Development of the Information and Communication Industry in Mauritius 2009” as a ‘pseudo-horizontal’ licensing model. The Act has largely been based on the SADC draft bill.

- Regarding the role of regional harmonisation in implementing national policy (question 3) this is acknowledged as highly important. However other models apart from SADC and developed by other institutions are taken into account as well
- Regarding the potential benefits (question 4) reference is made to a decrease of tariffs and the entry of new providers resulting from the implementation of such policies.
- With respect to question five regarding the achievement of SADC policy goals in Mauritius all seven items are confirmed.
- As regards question 6 on the incumbent, it is stated that the incumbent operator, Mauritius Telecom has been facing competition in many market segments including fixed line, international long distance and ISP since liberalization of the ICT sector in 2003. As regards the mobile market, the incumbent operator Emtel Ltd. also has two competitors namely Cellplus Ltd., a subsidiary of Mauritius Telecom, and Mahanagar Telephone (Mauritius) Ltd.
- As regards question 7 on the freedom to manoeuvre for SADC countries in greater extent than in other RECs, Mauritius is not aware of other RECs policies and therefore cannot answer the question.
- Regarding question 8 and the role of CRASA Mauritius believes CRASA has played an instrumental role in sector policy and this has enabled countries in the region to liberalise their ICT sectors and to face the challenges associated with this liberalisation. The workshops, meetings, reports and guidelines from CRASA have been inspiring for the formulation of national regulations. However, it is believed that CRASA has to play an advisory role with the aim of achieving harmonisation in the region. A stronger role in prescribing policies is not desired. Therefore, it is believed that each country has to maintain its sovereignty in decision making.
- To question 9 on the role of SATTA Mauritius has no answer.
- Question 10 lists the role and function of the regulator. Answers are as follows:
 - Customer protection: The regulator has a consumer complaint mechanism, where the following issues are dealt with:
 - The provision of telecommunication (failure to provide or repair) equipment and Internet service.
 - Charges and Billing
 - Delays in repairing and connecting service to customers
 - Fault repairs
 - Mobile phones problems
 - Internet access
 - Spamming and unsolicited mail
 - The regulator has also specified the EMF limits for mobile phones to 2W/kg of tissue (averaged over 10g)
 - The regulator has also determined a regulatory framework for the importation, sale and repair of mobile phones in order to protect the consumers and ensure that no substandard mobile phone enters the country.

- The decisions taken by the regulator with respect to consumer protection are usually taken in consultation with the consumer organisations.
- Independence of the regulator: The regulator is a body corporate that is independent financially and in its decision making process.
- Process handling / case transparency: Consultation is not a legal obligation however the regulator usually proceeds by public consultations prior to taking its decisions.
- Regulation of content issues by the regulator: Mauritius has different regulators for ICT and broadcasting. The ICTA is responsible for regulating the ICT sector whereas the IBA is responsible for broadcasting content regulation. The two regulators however have a common chairperson. This fact facilitates cooperation between them.
- Contribution of the regulatory authority to public interest: yes, as demonstrated in the annual report, http://www.icta.mu/documents/publications/ict_report09.pdf
- In section to question 11 questions regarding the SADC policies for regulation were contained. In short, the answers from Mauritius are:
 - affirmative in all case accept a policy on convergence
 - as regards question 11.12. the further centralisation of powers to a joint body is not supported.
 - Regarding convergence a stronger focus on this item is viewed as essential by Mauritius in order to ensure that policy and regulatory frameworks are in line with technological and service evolution.
 - With respect to competition recently a competition commission has been created and an MOU is to be signed between the ICT regulator and the commission
- On question 12 dealing with the status of achieved competition this is seen as strong and reference is made to the regulator's annual report, chapter 4
- Finally on question 15 addressing areas of policy development where the regional review and update provides substantial input on the national level, Mauritius points out
 - Flexible spectrum management
 - Numbering in the converged world
 - Electromagnetic Safety
 - Regulation of accounting rates
 - Quality of Service

3.2.8 Mozambique

From Mozambique, no filled out questionnaire was received in reply to the various contacts made to stakeholders. Also, no interview could be conducted during the SADC Technical Committee Meeting in Johannesburg in March. Therefore, no specific information was given for this interview's report. Analysis on Mozambique relies on the desktop research conducted for the assessment report undertaken by Angeline Karonga. The representatives from Mozambique were addressed at the workshop from 8 to 10 March 2010 and stated to report back after consultation with their home base.

3.2.9 Namibia

The Namibian regulator answered the questions as follows.

- With respect to question 1 on the extent to which harmonised SADC policies have been implemented, the respective policies in Namibia started in 1999 for the telecom and regulatory framework and ICT policy in 2002. In 2009 further telecoms, IT, postal and broadcasting policy have been issued. Also the SADC ICT declaration of 2001 served as a source document for 2009 policies.
- Based on this answer, further policy reforms (question 2) are being referred to.
- Regarding the role of regional harmonisation in implementing national policy (question 3) this is seen as important. Namibia says that the regional harmonization documents are the main source information upon which Namibian policies are developed.
- Regarding question 4 on policy efforts which in general have contributed to an improvement of the situation, Namibia confirms this. The regulator sees positive developments and immediate benefits “in terms of reduced telephony costs”. Reference is also made to the recently agreed reviewed mobile termination rates.
- With respect to question five regarding the achievement of SADC policy goals in Namibia, the following answers were provided
 - Universal service policy: partially. Universal service fund has been incorporated in the new act passed in November 2009 (which leads to the conclusion that it is not yet effective).
 - Increase of investment through universal service fund: to be determined.
 - Establishment of independent regulator: yes and explanation is given to the management by the boards, its decision making powers and the independence.
 - Capacity building: reference is made to participation of the board in national and international workshops. Also currently all steps under those training with international resource persons.
 - Clear and communicated strategy for telecom policy: yes by referring to the 1999, 2002 and 2009 policies.
 - Sharing of roles and responsibilities in a clear and transparent manner between different players: yes, reference is made to government versus regulators and their different roles.
 - Sector policy constraint or supported by institutional setting / accountability and institutions, the institutions have to give reasons for their decisions: all this is confirmed and reference is also made to the competition of a commission which has been set up in Namibia to handle competition issues in all economic sectors.
- As regards question 6 on the incumbent, it is stated that the incumbent should be licensed and subjected to the supervision of the regulator. Due to the reduction of fixed line revenues and the business as a result of mobile service, the incumbent should have a mobile business to remain sustainable / profitable. So as in many other countries the issue is that mobile is taking over and fixed services are losing importance.
- Regarding the role of CRASA (question 8) a positive statement is given. However, it is not supported by Namibia to give further decisions making powers to CRASA or SADC due to independence of countries and territorial integrity and sovereignty issues.
- This answer also holds true for SATA (question 9).
- Question 10 lists the role and function of the regulator. Answers are as follows:
 - Consumer protection: this is a statutory duty of the Namibian regulator.
 - Independence: ensured.

- Case handling / procedures / dispute cases and regulator: this is confirmed as the Namibian law requires a rule making procedure and hearings and matters that adversely affect consumers, operators and other third parties.
- Content regulation by authority: reference is made to further research being undertaken in Namibia. “In terms of convergence, the same has been achieved in telecommunications. Further policies and research will be undertaken in respect of convergence between telecoms and broadcasting.”
- Contribution of the regulator to larger public interest: yes this is confirmed for example through stakeholder workshops on public issues such as frequency band plan, migration from analogue to digital broadcasting.
- In section to question 11 questions regarding the SADC policies for regulation were contained. In short, the answers from Namibia are:
 - Consumer needs and consumer protection: yes, integrated in new communications act 2009.
 - Standards: partially.
 - Interconnection: yes, in terms of mobile interconnection. A separate document is being compiled.
 - Voice over IP: yes, by referring to service and technology neutrality and the licensing regime which facilitates voice over IP.
 - Tariffs policies: yes, in terms of mobile interconnection.
 - Consultation international participation: this is obviously rather limited as Namibia is at infancy in terms of ICT sector policy development.
 - Information collection and dissemination: yes, regulator collects information.
 - Provisions regarding spectrum regulation: yes, this lies within the regulator and his functions.
 - Convergence and broadband: this is confirmed however by making reference to service and technology neutrality in the licensing.
 - Cyber security: not yet.
 - Can stakeholder move issues forward, are they trained: this is confirmed; also reference is made to the different roles of ministries and regulator.
 - Stronger role regarding SADC policies and the national rules: there seems to be some movement to have the SADC free trade area extended to the ICT sector (that does not answer the question).
 - Stronger focus on convergence issues: regarded as essential by the Namibian regulator.
 - Competition issues: yes they are integrated.
 - Licensing and market entry: yes, covered in the act.
 - Investment into telecommunications sector: no specific regulation but general investment policy in the country.
- On question 12 dealing with the status of achieved competition the answer is: “Competition is central to the Namibian policy development process. Regional regulation of interconnection and roaming between operators are welcomed. It is assumed that the future moves toward completely removing roaming and interconnection costs.” This is an interesting statement.

- On question 13 with respect to possible lacks in the national policy, reference is made here to cyber security and some areas and documentations acts such as universal access policies, service and technology neutrality issues, number portability, ICT standards, licensing prices and tariff regulations / dominant market share benchmarking, digitalisation.
- On question 14 regarding insufficient content of the legal document of SADC policy, the Namibian regulator refers to lacks and rules on convergence and technologies and services. “We need to move to a ubiquitous market system and convergence is essential.”

The last question (15) is answered by referring to 13 and 14

3.2.10 Seychelles

From the Seychelles, at first no filled out questionnaire was received in reply to the various contacts made to stakeholders. However, an interview could be conducted during the SADC Technical Committee Meeting in Johannesburg in March and also a questionnaire with answers was received allowing completing the analysis. The result was summarized in the questionnaire and resulted in the following:

- With respect to question 1 on the extent to which harmonised SADC policies have been implemented, the regulator answered that the impact was low as the Seychelles had only rejoined the SADC recently.
- With respect to the second question on the most recent policy reforms, the regulator answered that the legislation governing the sector which is in separated acts (broadcasting telecommunications act) is currently being reviewed and the purpose is to update it. Furthermore, he refers to a creation of a media commission which speaks in favour of non-convergent regulation.
- Regarding the role of regional harmonisation in implementing national policy (question 3) this is considered to be important as this shows how to adapt to international best practice.
- Regarding question 4 on the improvement of the markets regarding availability and affordability of networks and services this is confirmed as also this shows display price reduction, increase in competition and increased affordability.
- With respect to question five regarding the achievement of SADC policy goals in the Seychelles the following answers were received.
 - Universal service policy exists but implementation has been limited. Not much requirement to do so in light of 120 per cent mobile penetration.
 - Increase of investment through universal fund: not applicable.
 - Independent regulator: the ministry is the regulator of the sector. A problem is seen on the small size of the island and the impact of lack of human resources to conduct regulation.
 - Capacity-building: continued training is being offered.
 - Existing strategy for telecommunications policy: confirmed
 - Sharing of roles and responsibilities in a clear and transparent matter: this is also confirmed (however somehow in conflict with the answer above as regards the independence of the regulator and the regulatory function undertaken by the minister).
 - Constraint / support by institutional setting? Public consultations? Transparency etc.: the answer is not very clear, reference is made to consider this in light of the new legislation coming up, and public consultations are being undertaken.
- As regards question 6 on the incumbent, the Seychelles refer to full liberalization

- As regards question 7 on the freedom to manoeuvre for SADC countries in greater extent than in other RECs, reference is made to international best practices from all regions being considered by the Seychelles and especially the SIDS (small island's development state)
- The role of CRASA has not been taken into consideration by the Seychelles at all (question 8). The same applies to SATA (question 9)
- Question 10 lists the role and function of the regulator. Answers are as follows:
 - Customer protection: reference is made to provisions in the license conditions and in the consumer protection act that has recently been passed in the Seychelles.
 - Independence of the authority: not really ensured due to the combination of regulator and ministry.
 - Specific procedure / handlings of regulatory cases: this is not implemented. However, it seems to be that there are attempts moving to this direction.
 - Regulation of content issues: no responsibility / role of the telecom regulator.
 - Capacity building within the society: no contribution by the regulator due to limited capacity.
- In section to question 11 questions regarding the SADC policies for regulation were contained. In short, the answers from Mauritius are:
 - Consumer protection: reference is made to license terms and conditions which ensure consumer protection.
 - Regulatory policy standards: not available / not applicable.
 - Interconnection: this is confirmed to be in place.
 - Voice over IP: yes, regulated separately.
 - Tariff policies: reference is made to the law.
 - Participation and international discussions: no answer.
 - Information collection: in place.
 - Spectrum regulation: "less in the law" (whatever that means).
 - Policy development for convergence: reference is made to the national ICT policy.
 - Policy for cyber security: not in place.
 - Possibility for stakeholders and ministries and authorities to move issues forward, training of staff etc.: this is positively confirmed, however reference is made to a government decision which cover these areas.
 - Should SADC have more powers to implement harmonised policies: this is in principle supported; however, room to manoeuvre shall be available for the respected member states as well.
 - Stronger focus on convergence issues sought? This is viewed positively.
 - Competition regulation? This is in place (fair trade commission, competition act).
 - Licensing policy: This is in place.
 - Policy for investment into the telecom sector: reference is made to the national ICT policy.

- On question 12 dealing with the status of achieved competition. This is viewed as important. However, the Seychelles do not see a specific issue to be dealt on the regional level to improve this.
- No specific issues turned up with respect to questions 13 through. 15

3.2.11 South Africa

From South Africa, no filled out questionnaire was received in reply to the various contacts made to stakeholders. Also, no interview could be conducted during the SADC Technical Committee Meeting in Johannesburg in March. Therefore, no specific information was given for this interview's report. Analysis on South Africa relies on the desktop research conducted for the assessment report undertaken by Angeline Karonga.

3.2.12 Swaziland

From Swaziland, no filled out questionnaire was received in reply to the various contacts made to stakeholders. Also, no interview could be conducted during the SADC Technical Committee Meeting in Johannesburg in March. Therefore, no specific information was given for this interview's report. Analysis on Swaziland relies on the desktop research conducted for the assessment report undertaken by Angeline Karonga. The documents were handed out any shortly discussed with Swaziland representatives at the workshop. The delegates stated that they will try to follow up.

3.2.13 Tanzania

With respect to Tanzania, a filled out questionnaire was received as well as an interview with senior officials of the regulatory body could be conducted in early 2010. Tanzania was not present at the SADC Sub-Sectoral Committee meeting, though.

- With respect to question 1 on the extent to which harmonised SADC policies have been implemented, Tanzania provided the information that all harmonized policies outlined by SADC have been implemented in Tanzania. These were specifically liberalisation measures 1997 in conformity with the SADC telecommunications policy, the structural separation of postal and telecommunications operation as well as the introduction and establishment of the regulatory authority (which by today is a convergent regulator), the establishment of universal access funds, the adoption of an ICT policy in 2003 as well as the introduction of a merger of telecommunications regulation and broadcasting regulation (convergence) already in 2004.
- With respect to the second question on the most recent policy reforms, the answers pointed to the introduction of a converged licensing framework 2005, a revision of the electronic and Postal and Telecommunications Act in 2009 and the background of these changes by the convergence of the ICT sector.
- Regarding the role of regional harmonisation in implementing national policy (question 3) the answer was given that best practices as well as the SADC model bill serve as reference and benchmarks.
- Regarding the potential benefits (question 4) the answer points to substantial development in the telecommunications sector especially demonstrated by the teledensity which now has reached 39 per cent (the answer does not differentiate between fixed and mobile).
- With respect to question five regarding the achievement of SADC policy goals in Tanzania the following answers are provided.
 - Universal services: Specific act established in 2006 containing the establishment of the universal communications access fund.

- Investment through the universal service fund: the fund has not stated allocating funds for rural investment however, mobile operators are investing there.
- Independent regulator: achieved by TCRA (which is an independent and a self-financed body through regulatory and licence fees collected from the operators).
- Capacity building: this is regarded as achieved due to training undertaken in regulatory related fields with the staff and participation in national and international workshops and seminars.
- Strategy for telecommunications policy: reference is made to a policy review which is done regularly and updates the status of the review in the market.
- Sharing of roles and responsibility in a clear and transparent manner between different market players: based on the independence of the authority as well as the various players in the market, it is regarded the goal that has been achieved.
- Constraints or support to sector policy by overall institutional setting; accountability; legal framework: the answer points to the achievements made on the regulatory side but also through the fair competition mission and competition law which is applicable. Law-making processes are public and based on discussions in parliament. Regulatory institutions are accountable for their actions and decisions. Decisions have to be reasoned.
- As regards question 6 on the incumbent, it is stated that a radical change has happened through which the fixed line operator is no longer dominant at all but mobile operators are the leading players. Explanation is given that of the 39 % teledensity, mobile operators account for 38 percentage points and fixed line only one percentage point. The “fixed incumbent” started with mobile services in 2007
- As regards question 7 on the freedom to manoeuvre for SADC countries in greater extent than in other RECs, Tanzania finds it a correct statement that SADC countries have more freedom to manoeuvre with respect to other member states and compared to other regulatory frameworks which are more binding on the members. The answer expresses agreement to that statement. This possibility to implement separate strategies per country within the SADC framework is also seen as a major reason for different stages that have been achieved in those countries.
- Regarding question 8 and the role of CRASA Tanzania sees the role of CRASA to facilitate harmonisation of the understanding of regulatory measures but does not see any need for more power to CRASA in respect to harmonisation. This answer is given identically in question 9 regarding the role of SATA..
- Question 10 lists the role and function of the regulator. Answers are as follows:
 - Customer protection: TCRA points to various measures on this issue for example the establishment of a consumer affairs unit, regulation of conduct of operators and providers, creation of the consumer consultative counsel, provision of secretariat on complaints.
 - Ensuring regulatory authorities' independence: reference is made to the legal status, financial autonomy, and independence of decision making, separation of roles between regulator, government and operators.
 - The regulatory procedures: these procedures are in place especially regarding public inquiries, public consultations etc.
 - Regulation of content issues and convergence: The possibility of the regulator to address these issues by decisions is confirmed. Reference is made to a content committee that is established by the law within the framework of TCRA. Also the licensing regime takes account of convergence by focussing on four license

categories which are network solutions license / network services / application services / content services.

- Contribution to the larger public interest: TCRA confirms that the special responsibility for this and also made achievements.
- In section to question 11 questions regarding the SADC policies for regulation were contained. In short, the answers from Tanzania are:
 - Initiatives on service provision and user needs: This is confirmed by various measures by the year 2005.
 - Standards: reference is made to regulations from 2005 covering standard issues.
 - Interconnection: also interconnection regulation has been passed in 2005.
 - Voice over IP: reference is made to the licensing framework and technical and service neutrality.
 - Tariffs policies: in 2005, Tanzania communications tariff regulation and the Tanzania interconnection regulation were passed.
 - International participation and consultation: ensured through membership of TCRA in various international committees.
 - Information collection and dissemination: done by the regulator.
 - Spectrum regulation: reference is made to a specific Tanzania communications (radio communications and frequency spectrum regulation from 2005).
 - Policy for convergence: confirmed by the general policy of a converged regulatory framework.
 - Cyber security: here, Tanzania has not yet passed any legislation but this is under consideration.
 - Possibilities of stakeholders to move issues forward / training: in general confirmed whereby specific issues are dealt with by experts.
 - Further powers of SADC to assume policies in the area of harmonisation: TCRA is not of the opinion this would be helpful. SADC should remain with doing model policies and guidelines but otherwise leave aside specific involvement.
 - Stronger focus on convergence issues: in general agreement that this is an important topic.
 - Framework for competition issues: Establishment of fair competition commission and fair competition tribunal is pointed out.
 - Licensing policy: this has been developed in various stages in Tanzania.
 - Policy development on investments: again, at different points in time this has been developed (1997, 2003, and 2005).
- On question 12 the issue is addressed regarding achieved competition status and any open points for regulation. The regulator answers that the approaches technology neutral and covers convergence so that everything in basic is fine
- Question 13 deals with potential lacks and missing elements of regulation. TCRA points to four issues which are cyber-security, investments, financing structure and ownership, SIM card registration for mobiles, management of competition.
- Question 14 addresses the question whether regional policy is regarded as important and where it is not sufficient at this stage. The answer here refers to an institutional convergence at ministerial level and more information exchange which is desired.

- Finally on question 15 deals with areas of policy development where the regional review and update provides substantial input for the country. The regulator here again refers to management of competition, investment and ownership, cross border connectivity, ICT backbones, submarine cables and landing points as well as local resource, mobilisation and attraction of foreign investment

3.2.14 Zambia

From Zambia, no filled out questionnaire was received in reply to the various contacts made to stakeholders. Also, no interview could be conducted during the SADC Technical Committee Meeting in Johannesburg in March. Therefore, no specific information was given for this interview's report. Analysis on Zambia relies on the desktop research conducted for the assessment report undertaken by Angeline Karonga. The documents were handed to the delegates from Zambia at the meeting and some loose discussions were held. The delegation will come back after consultation with their home base.

3.2.15 Zimbabwe

The questionnaire for Zimbabwe has obviously been answered by the regulator and therefore not all questions have been addressed. For example for questions 1-3 on the policies and the impact reference is made to the ministry which assumed to be the best place to answer, however, answer from the ministry was never received.

- Regarding question 4 on the impact and contribution of policy efforts in general to an improvement of the market regarding telecommunications networks and services, this is confirmed and reference is made to policy of cost-based tariffs to ensure affordability
- With respect to question five regarding the achievement of SADC policy goals in Zimbabwe the following answers are provided.
 - Universal service policy: implemented.
 - Increase of investment: "still to be realised".
 - Independent regulator: yes.
 - Capacity building: partly undertaken (financial resources are a major challenge to do that).
 - Clear and communicated strategy for telecom policy: not done.
 - Sharing of roles and responsibilities between players: it is mentioned that there are clear roles and responsibilities for government, regulators and operators.
 - Constraints or support of the institutional setting? Independent justice? Public consultations etc.? This question is not answered in detail but reference is made to an answer by the ministry.
- As regards question 6 on the incumbent, it is assumed that the incumbent, although under strong pressure from new entrants will play an important role in the future as well.
- As regards question 7 on the freedom to manoeuvre for SADC countries in greater extent than in other RECs, the regulator states that he is not familiar with frameworks in other REC.
- Regarding question 8 and the role of CRASA, Zimbabwe regards this as important, but the regulator wants to maintain sovereignty and therefore not too much policy harmonisation should be undertaken.
- Regarding question 9 the role of SATA: no answer is given, but reference is made to Telone who is a member of SATA.
- Question 10 lists the role and function of the regulator. Answers are as follows:

- Customer protection: consumer organs and organisations play an important role and are highlighted.
- Independence of regulator: This is answered positively, thereby pointing to the different roles of ministry and regulator.
- Procedures / handling / rules for regulatory cases: reference is made to consultations which are undertaken.
- Content issues: no integrated regulator but broadcasting sovereignty of Zimbabwe as regulator for broadcasting. ICT policy is looking at convergence.
- Contribution of regulator to larger public interest: reference is made to workshops having been hosted by the regulator.
- In the section to question 11 questions regarding the SADC policies for regulation were contained. In short, the answers from Zimbabwe are:
 - Universal service: yes, followed up by the regulator regarding affordability and accessibility and availability.
 - Standards: yes.
 - Interconnection: yes.
 - Voice over IP: this is allowed, but there is no specific policy.
 - Tariff policies: all tariffs have to be cost-based and have to be approved by the regulator to become effective.
 - Consultation and international participation: encouraged.
 - Information collection: obligatory to report to regulator.
 - Spectrum regulation: yes.
 - Policy development for convergence: ICT policy under consideration.
 - Policy for cyber security: not yet.
 - Capacity building training: yes.
 - Stronger role of SADC to implement harmonised rules: discouraged. Independent / individual members should retain their rights to issue domestic laws and regulation.
 - Stronger focus on convergence: international best practice is desirable.
 - Regulation / framework for competition issues: no.
 - Policy regarding licensing and market entry: yes.
 - Policy development for investment: no.
- On question 12 regarding competition issues and the relevant framework it is stated that with improving competition light regulation is introduced. Convergence remains important.
- With respect to question 13 on an update of the legal instruments and policies regarding areas where they are not sufficient it is mentioned that policies and regulations of infrastructure regulation as infrastructure sharing and regulation of the emerging services such as VoIP are still inadequate, structure and ownership, SIM card registration for mobiles, management of competition.
- For question 14 on the SADC policy model legislation and the role of regional policy in legal documents the same answer is provided meaning that obviously on the SADC level something on convergence and infrastructure sharing is requested.

- Finally on question 15 regarding areas of policy development important on a regional level the following items are mentioned: convergent issues, broadband, infrastructure sharing, green ICT services

4 Summary

The interview's report was collected based on Telephone, e-mail and personal contacts with stakeholders in the industries of the 15 SADC Member States. In the end, responses were not received from all countries, and where responses came in, they were limited to regulatory authorities and policy makers. Nevertheless, one can identify that SADC Polices, the Model Bill and the TCM Protocol have been important for most countries to introduce reform to their countries. At this stage it is important to go further to take the next big step regarding the creation of the telecommunications legal and regulatory framework fit for the future.

5 Questionnaire

Questionnaire

This questionnaire serves to prepare and structure telephone interviews with stakeholders in SADC member countries with respect to the telecommunications policy environment and regulation in the respective country against the background of national legislation as well as SADC policies regarding the regional harmonisation of the overall framework. It serves the consultants to understand where potential problems of current telecommunications policies are to be found and whether and where reform has to be brought into the regional framework for SADC member states. It also serves to identify differences in the status achieved on a national level in the implementation of SADC policy frameworks. The questionnaire has been developed in the context of a review and update of the SADC ICT policy and legal framework in collaboration with the SADC secretariat, and the support of the ITU and the EC.

On all the questions below we would be interested to learn what the status of regulation in this area is and what has happened in the last years. Our special interest would be how the rules in the member states from which the interviewed persons come relate to SADC model bill and policy framework.

Please fill in your answers to our questions where applicable. Please bear in mind that the questionnaire is directed towards all stakeholders so not all questions may seem be relevant to you. In such a case write "not applicable". Please see the attached e-mail for further information especially with respect to your availability for a telephone interview.

No.	Question	Answer
1	Please describe to which extent the harmonised policies from the SADC efforts at the end of the 1990s have been implemented in your country?	
2	What were the most recent policy reforms with respect to the telecommunications and broadcasting sector? Was the latest review motivated to comply with (or inline with) SADC policies or any other regional policy for the ICT sector (COMESA, EAC, etc)?	
3	To which degree did regional harmonization	

annex 1

	play a role in defining the national policy?	
4	Have policy efforts in general contributed to an improvement of the situation regarding telecommunications networks and services with respect to availability and affordability?	
5	Which of the following SADC policy goals have been fulfilled in your countries?	
	Set-up and implementation of a universal service policy?	
	Increase of investment through the establishment of a universal service fund?	
	Establishment of an independent regulatory authority as an element of the regulatory framework?	
	Capacity building undertaken in order to equip the decision makers at the regulatory authority with the required know-how?	
	Overall clear and communicated strategy for telecommunications policy including feed back loops and consultations under implementation?	
	Sharing of roles and responsibilities in a clear and transparent manner between different players in the market?	
	Is sector policy constrained or supported by the overall by the institutional setting and the administrative structure in a country? What is the status of administrative justice in the country? Is all policy required to be in the public domain for comment before being adopted? Are institutions accountable and their actions transparent? Are institutions required for example to give reasons for their decisions? Is there recourse to law or what other forms of appeal are there?	
6	The SADC telecommunications policy and the SADC model bill adopted in 1998 deal very much with a monopolistic environment and therefore try to make sure that the transformation of the incumbent operator can take place.	

annex 1

	How do you see the incumbent's role in your country in terms of fixed and mobile services today and in the future?	
7	A recent ITU report has determined that the harmonized policy in the SADC region gives more freedom to manoeuvre for the Member States in comparison to other regional regulatory frameworks (ECOWAS, CEMAC etc.). Do you share this view and how has that affected the progress in developing and implementing sector policy?	
8	What role has CRASA played in sector policy development in the SADC region over the past ten years and which role would you see for CRASA in the further process? Would it be preferable to grant more decision making power to regional institutions and thus reduce regulatory discretion for national regulators in order to achieve a higher degree of harmonization?	
9	On the same issue, how do you assess the role of SATA as a supranational organization regarding its impact on sector policy in the SADC countries?	
10	The following questions deal with the role and function of the regulatory authority in today's environment in your country. What has the regulatory authority done in order to protect customers? Which role do consumer organizations play in this respect and where have they had an impact on forming policy?	
	How is the independence of the regulatory authority to be regarded with respect to other stakeholders (ministries, operators, others)?	
	Are the regulatory process following a specific procedure / handling / rule which is obligatory in order to enable all parties which are interested to comment and to raise their voice / opinion?	
	Has the regulatory authority power also to regulate content issues / questions	

annex 1

	regarding the broadcasting market? Has a regulatory policy been set up in order to look at convergence issues between telecommunications and broadcasting? If so, what has been the effect / result of this?	
	Has the regulatory authority contributed to a larger public interest in capacity building also within the society?	
	Has the regulatory authority contributed to a larger public interest in capacity building also within the society?	
11	The SADC policy does not only deal with the regulator as such but also with a number of policy areas in which it was requested to move into. Therefore, the following items relate to questions on specific areas and what has been done in these areas of policy. Do policy proposals and initiatives on service provision and user needs incl. consumer and user protection exist?	
	Is there a regulatory policy developed for standards?	
	Is there a policy developed for interconnection?	
	Does a policy on VoIP exist and how does it impact market development (Service availability, tariffs, investment)?	
	Are there tariff policies developed and applied?	
	To which degree is there a possibility of consultation and international participation (e.g. of SADC member states that could lead to a harmonisation)?	
	Is there a mechanism for information collection and dissemination?	
	Are there any provisions regarding spectrum regulation?	
	Is there a policy development for convergence services and especially broadband /	

annex 1

	internet?	
	Has the Member State developed a policy with respect to cyber security?	
	Are the stakeholders in ministries and authorities in a position to move policy issues forward with respect to capacities and capabilities in this dynamic environment? E.g. has the staff been trained in these areas and, if not, what would be important measures to improve the situation?	
	Should there be the option of SADC having the possibility to issue regulation which are binding and have to be implemented / followed nationally in order to achieve a coherent approach amongst the Member States?	
	How do you consider a stronger focus on convergence issues e.g. with respect to a unified policy framework which includes the issues regarding broadcasting? Do steps in this direction from other regions have an impact on the way you assess the regional and national policy on convergence in SADC countries? Where do you see advantages and disadvantages of including convergence issues in the regional policy?	
	Is there a regulatory framework developed for competition issues?	
	Is there a policy in place with respect to licensing and market entry?	
	Is there a policy development regarding investment into the telecommunications sector?	
12	Which role does the status of achieved competition play in the design of the policy framework? Are there specific market developments in your country which require specific regulation on a regional level (e.g. fixed-mobile competition etc.)? Which developments do you foresee for the coming	

annex 1

	decade and how would they have to be dealt with in your view in the regional policy framework?	
13	In the light of an update of the national policy and legal documents: In which areas do you deem the local policy documents/regulations as not sufficient? Why? Where is room for improvement? (Please keep the questions/bullet points from Q 11 in mind when answering.)	
14	In light of this review and coming update of SADC policy and model legislation: In which areas do you deem the regional policy and legal documents as not sufficient? Why? Where is room for improvement?	
15	Where do you see areas of policy development in which the regional review and update could provide substantial input for next steps on the national level?	

> SUMMARY OF SADC MEMBER STATES' NATIONAL POLICY, LEGAL AND REGULATORY FRAMEWORKS DEVELOPMENT

	ICT Policy In Place	Converged Regulatory Authority	Competition level	Licensing Regime	Universal Service Regulated	Universal Services Fund functional	Facility sharing	Interconnection regulated	Interconnection Reference Offer required	Dispute Resolution by Authority	Spectrum Management by Authority	Consumer Protection Legislation
Botswana	No	Yes	Full	Vertical	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Malawi	No	Yes	Full	vertical	Yes	(to be verified)	Yes	Yes	No	Yes	Yes	Yes
South Africa	No	Yes	Full	Horizontal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Zambia	Yes	No	Full	Horizontal	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Zimbabwe	Yes	No	Full	Vertical	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Mozambique	Yes	Yes	Managed Competition	Vertical	Yes	(to be verified)	Yes	Yes	No	Yes	Yes	Yes
Seychelles	Yes	To be verified	Full									
Mauritius	Yes	Yes	Full	Horizontal	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DRC		Yes	Full									
Madagascar												
Swaziland	Yes	Yes	Full	Horizontal	Yes	(to be verified)	Yes	Yes	No	Yes	Yes	Yes
Lesotho	Yes	Yes	Full	Horizontal	Yes	(to be verified)	Yes	Yes	No	Yes	Yes	Yes
Namibia	Yes	Yes	Full		Yes	No	Yes	Yes	Yes	yes	Yes	Yes
Angola	Yes	Yes	Managed Competition	Vertical	Yes	(to be verified)	Yes	Yes	No	Yes	Yes	Yes
Tanzania	Yes	Yes	Full	Horizontal	Yes	No	Yes	Yes	No	Yes	Yes	Yes

> SADC MEMBER STATES ICT/TELECOMMUNICATIONS NATIONAL POLICIES AND LEGISLATIONS

1 Republic of Angola

- [Basic Telecommunications Law of Angola, 2001](#)
- Regulation on Access for the Supply of Telecommunications Services, 1997
- Decree on the General Regulation of Interconnection Network and Telecommunications Services, 2003
- Regulation on the Pricing of the Public Telecommunications Services Decree, 2003

2 Republic of Botswana

- [Telecommunications Act, 1996](#)
- [Guidelines on Interconnection for Botswana Telecommunications Sector, 2003](#)
- [Telecommunications \(Amendment\) Act, 2004](#)
- [Cybercrime and Computer Related Crimes Act, 2007](#)

3 Democratic Republic of Congo

- [Act No. 013/2002](#) (*Loi No. 013/2002 du 16 octobre 2002 sur les Télécommunications en République Démocratique du Congo*)
- [Act No. 014/2002](#) (*Loi No. 014/2002 du 16 octobre 2002 portant Création de l'Autorité de Régulation de la Poste et des Télécommunications*)

4 Kingdom of Lesotho

- [Telecommunications Act, 1999](#)
- Communications Act (under consideration)

5 Republic of Malawi

- [Malawi Communications Act, 1998](#)

6 Republic of Mauritius

- [Electronic Communications Act, 2000](#)
- [Electronic Transactions Act, 2000](#)
- [Independent Broadcasting Authority Act, 2000](#)
- [Information and Communications Technologies Act, 2001](#)
- [Computer Mis-use and Cybercrime Act, 2003](#)
- [ICT \(Amendment of Schedule\) Regulations, 2003](#)

- [Data Protection Act, 2004](#)
- [Information and Communications Technologies Act \(Universal Service Fund\) Regulations, 2008](#)

7 Republic of Mozambique

- [Law 8/2004](#)

8 Republic of Namibia

- [Telecommunication Policy, 2008](#)
- [Information Technology Policy, 2008](#)
- [Licensing Framework, 2008](#)
- [ICT and Broadcasting Policy, 2008](#)
- [Communications Act, 2009](#)

9 Republic of South Africa

- [Broadcasting Act, 1999](#)
- [Independent Communications Authority of South Africa Act, 2000](#)
- [Promotion of Access to Information Act, 2000](#)
- [Electronic Communications Transactions Act, 2002](#)
- [Electronic Communications Act, 2005](#)
- Cryptography Regulations, 2006
- Regulations Regarding Standard Terms and Conditions for individual Licences, 2007
- Regulations Regarding the Processing and Procedures for Application for an Individual Licence to Provide Electronic Communications, Network Services, Electronic Communications Services and Broadcasting Services and for Temporary Special Authorisations and Matters Pertaining thereto, 2008

10 Kingdom of Swaziland

- [Swaziland Television Authority Act, 1980](#)
- [Electronic Communications Act, 2009](#)
- [Swaziland Broadcasting Bill, 2009](#)

11 Republic of Tanzania

- [Tanzania Communications Act, 1993](#)
- [Tanzania Communications Regulatory Authority Act, 2003](#)
- [Tanzania Communications \(Licensing\) Regulations, 2005](#)
- [Tanzania Communications \(Access and Facilities\) Regulations, 2005](#)

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- [Tanzania Communications \(Consumer Protection\) Regulations, 2005](#)
- [Guidelines and Procedures for Licensing Electronic and Postal Communications, 2005](#)
- [Broadcasting Services \(Content\) Regulations, 2005](#)
- [Tanzania Communications \(Interconnection\) Regulations, 2005](#)
- [Tanzania Communications \(Tariffs\) Regulations, 2005](#)
- [Universal Communications Services Access Act, 2006](#)
- [Tanzania Communications \(Telecommunications Numbering and Electronic Address\) Regulations, 2005](#)
- [Tanzania Communications \(Radiocommunications and Frequency Spectrum\) Regulations, 2005](#)
- [Interconnection Rates Determination, 2007](#)

12 Republic of Zambia

- [Independent Broadcasting Authority Bill, 2002](#)
- [Information and Communications Technologies Act, 2009](#)
- Electronic Communications and Transactions Act, 2009

13 Republic of Zimbabwe

- [Postal and Telecommunications Act, 2000](#)
- Interconnection Guidelines, 2001
- [Broadcasting Act, 2003](#)
- [Access to Information and Protection of Privacy Act, 2004](#)
- Interception of Communications Act, 2008