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Dialogue and Policy Implementation (RAPID)
REGIONAL MARKET INTEGRATION



**SUPPORT FOR
TRANSPORT AND TELECOMMUNICATION REFORM IN
SOUTHERN AFRICA:
PROTOCOL IMPLEMENTATION
Task Order 2.1**

TECHNICAL ASSESSMENT REPORT:

Telecommunications Regulatory and Policy Review of
Mozambique, Swaziland, and Namibia

Riley Allen
Chemonics International

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Telecommunications Regulatory and Policy Review of Mozambique, Swaziland, and Namibia

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I. General

The RAPID Telecommunications Task Team (“RTTT”) performed a preliminary regulatory and policy audit of three jurisdictions (Mozambique, Swaziland, and Namibia). As part of the review, RTTT also interviewed industry participants in Botswana and the Republic of South Africa.

Several broad themes or patterns emerged in these three countries and are summarized below. These are patterns that, based on information provided at a later SADC planning workshop, appear to be fairly common throughout the region. Annex I.A. contains a summary of some features of the sector regulator and the progress of SADC member nations in implementing the protocol.

(1) In the three countries reviewed, most telecommunications services remain as monopoly services, controlled by parastatal corporations. In each of the three countries listed above, the fixed-line operator exists as a separate corporate entity. In two of the three instances above (Swaziland and Namibia), the monopoly cellular operator is a separate corporate entity owned or majority-owned by the fixed-line operator. In the third (Mozambique), the cellular operator is not separate from the fixed-line operator but exists separately only as a matter of a management contract and the name under which the service is marketed (mCel).

(2) The regulatory and policy environment for telecommunications is still very much in flux in each of the three jurisdictions reviewed. Fundamental policy issues are still under development or in the very early stages of implementation. In two of the three countries (Mozambique and Namibia) the process of introducing competition in the cellular market is just beginning. Privatization, access to international gateways, and fixed-line competition are issues that are being addressed through draft policy documents and draft legislation. Detailed issues of regulation and policy implementation remain somewhat distant.

(3) Participation by private sector stakeholders in the formulation or implementation of policy in certain jurisdictions appears to be limited and should be strengthened. Stakeholder participation becomes all the more meaningful and informative as the sectors are gradually opened to competition such that non-governmental capital is represented in the formulation and implementation of policy and regulation. Among operators themselves, participation in policy debates can be strengthened through better cooperation among industry peers or international counterparts.

(4) Economic regulation is still at a very early stage of development. Only two of the three jurisdictions (Mozambique and Namibia) targeted actually have any kind of autonomous regulatory authority. Even in those two, the regulatory functions or operations appear to be in an early stage of development or are constrained under current law. In the case of Mozambique, the role of the regulatory authority appears to be limited but expanding.¹ In the case of Namibia, responsibility includes broadcasting but limited staff resources and the law appear to constrain the regulator. In particular, the scope of responsibility by the regulator does not extend to oversight of the fixed-line operator.

Capacity building inside the regulator is a priority concern among almost everyone contacted during the course of our review. This need is well recognized by both the public and private sector participants interviewed, especially the existing regulators.

(5) While there is widespread recognition of the need for an effective regulator, there also appears to be broad recognition that this institution should try to exert its influence in ways that are not heavy handed or overly intrusive. Together with the constraints imposed by limited capacity in the region, this suggests that the regulator may need to find innovative ways to exert authority over the industry. It also suggests that the regulator should explore ways to facilitate self-regulation. Information disclosure policy and internet resources provide some promising avenues in this regard.

¹ At this stage it appears that regulation is focused largely on issues of spectrum management and equipment type-approval.

II. Approach

As an early step in identifying needs and planning work over the course of the project, a field audit of the regulatory and policy environment was undertaken in Mozambique, Swaziland and Namibia.² The approach adopted was to interview both private and public sector participants in the telecommunications sector, within these three member states and other SADC countries. The questions presented were broad, but in the case of private sector participants, centered on the ease of entry and cost of doing business in different environments.³ This exercise was supplemented by a review of policy materials, laws, internet sites, and regulations relevant to the jurisdiction.

With respect to the public sector participants, such as the regulator and the ministry, the questions centered on the status of implementation of the 1998 SADC Protocol on Transport, Communications, and Meteorology implementation, and on the character and independence of the regulatory body. The review also extended to issues of implementing commitments under the SADC telecommunications protocol.⁴ With respect to the regulator, the specific areas of focus included the following:

- Independence of the regulator;
- Functions of the regulator with respect to the following:
 - Resource management
 - Spectrum
 - Numbering
 - Licensing/determinations of which services should be licensed
 - Price regime/Tariff review
 - Dispute resolution/Administrative and legal procedures/Appeals
 - Consumer Protection
 - Competitive Issues and Interconnection Policy
- Outreach/Information Distribution by Regulator
- Ability to collect information from providers/audits/reports
- Structure and capacity of the regulator

² According to TRASA the region divides itself into three groups. (1) The more prosperous countries in the region with fairly advanced infrastructure including South Africa, Mauritius, Botswana, Namibia, and the Seychelles. (2) Those with developing services that are gaining momentum including Lesotho, Swaziland, Zambia, Malawi and Tanzania. (3) Those struggling to establish upgraded services including Mozambique, Zimbabwe, Angola, the Democratic Republic of Congo. See, TRASA Strategic Business Plan at 8. The three countries selected are representative of the countries in the region in relation to the sector.

³ The information obtained through interviews and materials collected was supplemented by the BMI Technologies Communications Handbook for 2000 and by the 1998 Draft ITU, General Trends in Telecommunications Restructuring 1998, Volume I, Chapter 2 prepared by BDT Telecommunications Development Bureau.

⁴ While there appears to be a commitment to implement the protocol, the language of the protocol affords individual SADC nations considerable flexibility within the framework.

- Nature of appointment/term composition of commission or Board
- Funding/Mechanisms for assuring fiscal responsibility
- Social Policy/Universal Service

III. Findings and Conclusions

A. Cross-industry Issues

Those interviewed identified not only issues specific to the telecommunications sector, but also identified issues that present impediments to investment of a cross-cutting nature across different markets. Issues identified included the following:

- i. Foreign exchange restrictions;
- ii. Environmental restrictions;
- iii. Labor restrictions/labor capacity;
- iv. Tax laws and import duties;
- v. Local suppliers requirements;
- vi. Inadequate legal structure;
- vii. Small market size; and
- viii. Competitive and legal framework.

Based on discussions with providers, local-use requirements are sometimes applied unevenly across providers in a sector and add cost and delay to the delivery of services. Similar statements can be made with respect to import duties, labor restrictions, and foreign exchange controls. To varying degrees, these factors create added burdens to the development of the sector. To the extent that the rules are applied unevenly, they may also tilt the playing field as the sector is opened to competition. In addition, these measures may also exacerbate constraints imposed by the inherent limits resulting from a shortage of skilled technicians in the local labor force.

The small market size is an issue in each of these countries. Given that actual growth for cellular services has substantially exceeded forecasts, the market for cellular appears to be the most promising. The size of the cellular market is driving almost all demand for new communications service in these countries. Innovative service strategies have also helped expand the sector. In Swaziland, pre-paid services are the predominant form of cellular service, and account for most of the growth in cellular delivery in neighboring countries.

As a general matter, the competition and legal framework can, and often is, addressed in the context of sector-specific laws and regulations. It is common for communications laws, regulations and even license provisions to include extensive provisions for fair-trading and interconnection. This framework may also include provisions for dispute arbitration and mediation. These and other impediments to market development can be addressed by including clauses in communications or cross-sector laws that allow for their exemption.

B. Regulation

Two of the three countries reviewed (Mozambique and Namibia) have established an autonomous regulator. In Mozambique it is the Instituto Nacional das Comunicações de Moçambique (“INCM”). In Namibia it is the Namibian Communications Commission (“NCC”). The new (March, 1999) policy adopted in Namibia calls for the establishment of a new and expanded regulator under a new name, the Namibian Information and Communications Regulatory Authority (“NICRA”). While we were unable to review a draft policy or law in Swaziland, we understand that an autonomous regulator is a part of the new telecommunications environment currently under consideration.

Structure of the Regulator

The organization and structure of the regulator is important to the proper management and delivery of regulatory services. The models for structure are highly varied and the success of any model ultimately depends critically on the Board and senior management. A common model in the US is for the regulatory body to comprise either 3 or 5 full time commissioners

or board members that are appointed for a fixed term by the chief executive.⁵ At the federal level the President appoints Federal Communications Commission members, and at the state level appointments are typically made by its Governor. Commission members are usually appointed for a fixed term and can only be removed “for cause.” Appointments are typically staggered so that no more than a fraction of the Commission is up for reappointment at any given time. Regulatory commissions are often comprised of balanced memberships from competing political parties or varied backgrounds and experience. Executive functions within the regulator are commonly situated with the Chairman of the regulatory authority.

Annex IC to this report contains a summary of the various regulatory models used by SADC countries as it applies to the composition of the governance council or board. No one model appears to dominate the region.

Mozambique is currently in the process of establishing a new structure to the regulatory authority that has existed since 1992. At present the INCM has approximately 45 personnel and no sitting Board. Swaziland has yet to establish a regulator. Namibia’s current law permits no less than six and no more than nine members of the commission, who are appointed by the Minister of Information and Broadcasting. At present, the Namibian Communications Commission has seven members and a small staff.

Independence/Autonomy

Eleven of the fourteen SADC members now have autonomous regulators.⁶ Independence is, however, a greater challenge to the region, especially given the close relationship that remains between government in the region and the fixed-line operators.⁷

The need for an independent and effective regulatory body in each of the member nations is well understood and is widespread. Independence here refers primarily to independence from operational interests, but also extends to potential short-term political influence or intrusion. In the SADC region of Africa, all of the incumbent fixed-line operators remain parastatal

⁵ An odd number of commission members is commonly used to help ensure a simple majority can be reached on close votes and therefore to avoid regulatory paralysis.

⁶ See, Annex I.

⁷ By autonomy, we refer to the existence of the regulator as a separate legal entity. By independence, we mean the degree to which the regulator is independent of influence from operational interests and political interests.

organizations, with at least a majority owned by government. Under such situations, the issue of regulatory independence is even more important than in jurisdictions without such relationships. From the standpoint of the investment community, links between government and the service provider may be viewed positively for strategic partnering with the government as a monopoly. However, from the standpoint of attracting outside capital, the links between government and service provision will prove a problem, and underscores the need for a strong and independent regulator. As the sectors liberalize, the issue of independence will become more important to sector growth and investment.

Linkages between government as a policy maker, as an operator, and as a regulator present challenges to attracting investment capital. Where government plays all three roles, investor perceptions of fairness will be adversely affected, especially where the regulator is not perceived to be independent. Even apart from links between government and operators, however, regulation is best administered in an environment free from political interference. The mandate establishing the regulator usually incorporates some measures that guarantee its autonomy from the executive and legislative branches of government.⁸

In broad terms, the governments in the region often distinguish the relevant ministry as a policy setting body, and the regulator as the executor of that policy. At times, the regulator in Africa is asked to play a role that extends beyond features usually reserved for economic regulation, such as the advancement of certain social policies. In most countries in the region, universal service falls under this category. In South Africa for example, redressing the needs of historically disadvantaged individuals falls into this arena.

In order to attract outside investment in strategic partnerships, economic regulation in the region has also served to help secure or oversee disputes arising from legal grants of exclusivity. In more mature regulatory environments in the developed world, the role of the economic regulator typically centers on managing or mitigating the market power of the monopoly provider; often by encouraging increased competition and open markets wherever possible. The dual and often competing responsibilities in these areas would present challenges to even a strong and independent regulator, but are made all the more challenging where there is significant potential for commercial or political influence.

As has been noted, two of the three jurisdictions reviewed here (Namibia and Mozambique) have autonomous regulators. Existing regulatory functions of Swaziland are performed within the Swaziland Posts and Telecommunications Corporation (SPTC) and the Ministry of Tourism, Environment and Communications.

The SPTC is also the monopoly operator for basic services. Existing legislative proposals in Swaziland call for the establishment of an independent regulatory body. Certain traditional regulatory functions, such as spectrum management, are currently managed by SPTC. Other responsibilities, such as tariff and pricing reviews, are covered by the Ministry of Tourism, Environment and Communications.

Independence of the regulator typically refers to the independence from the operational side of the industry. It may also refer to freedom from short-term political influence, although this latter concern is small by comparison. Due to the relationship between the Ministry and the government-owned fixed-line provider, it will typically require independence from the Ministry in order to ensure that it performs its functions over the incumbent fixed-line operator. While autonomy exists in two of the regulators, independence presents a future challenge. Lack of independence usually can surface through control over the appointment of Board members, agency funding, approval for regulations, and through the sharing of regulatory responsibilities, such as licensing.

The level of independence from the Ministry can usually be determined by four factors. (1) Appointing authority – Are appointments made by the minister that owns the fixed-line operator, or by the President?⁹ (2) Removal – Does the minister or the president have the authority to remove the Board or council members from the regulatory authority for cause or the end of a set term? (3) Funding – How independent is the funding mechanism for the regulator from political or commercial influences? (4) Regulatory discretion – Can the

⁸ This usually occurs through the appointment of the Board members for fixed terms and under a process that is usually reserved for the appointment of judges.

⁹ In Mozambique, for example, the Director, Deputy Director, and Department Heads within the INCM are appointed by the Ministry of Transport and Communications. BMI at 327

authority take regulatory actions against government owned operators without approval of the relevant ministry?¹⁰

In Namibia, the Namibia Communications Commission Act of 1992 provided for the creation of the Namibian Communications Commission (NCC) as a separate entity from Telecom Namibia (TN). TN exists as a subsidiary of the Namibia Post and Telecom Holdings. Telecom Namibia is presently the monopoly operator for basic services. Legislative proposals contemplate expanding and enhancing the roles and responsibilities of the existing regulatory authority under a new regulatory authority that would provide oversight to Telecom Namibia. At present, its responsibilities are limited to oversight of the monopoly cellular operator, equipment certification, spectrum management, and licensing. The NCC also has responsibility for regulating broadcasting. The NCC may recommend regulations to the Minister for promulgation.

The 1999 policy adopted by the Ministry of Information and Broadcasting would substantially expand the scope of the responsibilities of the regulator and increase its independence under NICRA. Functions of the new regulatory body include its existing responsibilities but would extend its reach of authority to TN.¹¹

In Mozambique, the INCM is responsible to the Ministry of Transport and Communications. While a regulatory authority has been established, most of its operations appear to center around licensing, spectrum management issues, and type approval. Dispute resolution and competitive issues are those identified for future development, and regulations covering issues of interconnection are currently out for comment. The structure and staffing of the regulatory authority is under development. Although the budget for the regulator in Mozambique is annually considered for approval by Parliament, its funding comes through industry and user fees, including license fees. The license fees paid to the INCM remain with the organization and are not required to be paid to government.¹²

¹⁰ In the Republic of South Africa, for example, the authority of ICASA to promulgate regulations is narrowly defined in law and is then subject to Ministerial approval.

¹¹ Responsibilities identified for NICRA include (i) universal service, (ii) service provision and oversight, (iii) ownership, (iv) competition, (v) licensing, (vi) spectrum planning and management, (vii) standards and quality, (viii) human resource development, (ix) interconnection, (x) tariffs, (xi) consumer protection, (xii) numbering, (xiii) liaison with the Minister, (xiv) consultation with the Ministry and international participation.

¹² TRASA Strategic Business Plan at 33.

Capacity Building

The limited capacity of the regulator is a recurring theme throughout the countries visited and is a well-recognized weakness among the regulatory community itself. TRASA has identified regional capacity building among the priorities for its members.¹³ Capacity building refers to at least three areas of concern: (i) that the responsibilities of the organization are well understood and well-defined in either law or regulation, (ii) that the organization has adequate funding and staffing, and (iii) that the staff are adequately trained to perform the functions required or to manage the consulting resources necessary to provide outside assistance.

The issue of regulatory human resource capacity is consistently identified as a deficiency by both regulators and private sector participants. The issue of limited human resource capacity seems to be symptomatic of the limited experience with economic regulation in the SADC region, of the immature regulatory environment that exists in each of the countries with regulators, and of the manner in which resources are being dedicated to perform regulatory functions.¹⁴

Capacity building can be enhanced through several mechanisms. Fundamentally, the regulators need to confront the fact that regulatory staff and technical expertise in many areas of regulation are immature. Given the small size of some markets, outsourcing or heavy reliance on regional bodies (such as TRASA) for education and technical assistance, and the pooling of regulatory activities may be needed.

In Swaziland, spectrum management is still maintained through SPTC, the fixed-line operator. The establishment of a formal regulatory body still awaits passage of the communications bill pending before Parliament. Conversations with the Ministry staff suggest that capacity building should be a high priority. Similarly, we found capacity building to be a priority in Mozambique and Namibia.

¹³ A list of specific areas identified by member nations is included on Annex I.

¹⁴ Although much less an issue overall, the issue of limited capacity may also relate to the availability of appropriate equipment or even physical space. Spectrum management, for example, typically requires certain spectrum policing activities. In the absence of technologically advanced monitoring equipment, there is little

Funding

Funding approaches for the regulator varies with each jurisdiction. Usually, the regulator is funded in a manner similar to other branches of government, through an annual appropriation of general funds. Another common approach is to obtain funding from license and user fees, or through a similar mechanism defined in law as a percentage of turnover. This latter approach has the advantage of further insulating the regulator from immediate political influence. In the United States, the Federal Communications Commission (“FCC”) is funded through an appropriation of general funds, but license and application fees are set to cover the costs of regulation (except for the commercially valuable spectrum licenses that are auctioned). State regulatory commissions in the United States are commonly funded through gross revenue taxes tied to the turnover on regulated services.¹⁵

A countervailing concern with autonomous funding mechanisms is that of assuring adequate accountability. Some system of accountability is required, although, given the frequent relationship between the Ministry and the fixed-line provider, the funding should be sourced outside the sector Ministry.

In Mozambique, the INCM collects its costs of doing business through license and other service fees. The budget of the regulators is authorized annually by the parliament in the budget process. Swaziland has not yet established an independent regulator. Funding in Namibia is through general appropriations via the Ministry. Under the new policy adopted by the Ministry of Information and Broadcasting, however, funding is recognized in relation to independence, so NICRA is to be funded from fees and monies payable to it from the industry (e.g., license fees and levies).

Functions of the Regulator

We reviewed the regulators’ activities in relation to the following core regulatory functions.

- Resource management
 - Spectrum

ability to perform that necessary function. Other spectrum management and planning activities are then potentially compromised.

- Numbering
 - Licensing/determinations of which services should be licensed
 - Price regime/Tariff review
 - Dispute resolution/Administrative and legal procedures/Appeals
 - Consumer Protection
 - Competitive Issues and Interconnection Policy
 - Universal service

To varying degrees, each of the jurisdictions reviewed include these responsibilities within the scope of the regulatory authority, where such an organization exists. Spectrum management appears to be an area where a disproportionate share of staff resources has been dedicated. Observations made during the course of our review suggest, however, that the field monitoring and enforcement in this area appears to be inadequate. The Namibian Communications Commission also regulates broadcasting.

(i) Resource Management

The management of scarce resources is one of the core functions of a regulatory authority. The primary issue here is with spectrum resources. Although technology appears to be expanding the breadth and depth of this resource over time, spectrum still represents a scarce public resource that must be managed in a way that best serves the interests of the public. Numbering resources (i.e., the digits that individuals actually dial when making a phone call) represent an artificial scarce resource, but nonetheless, one that must be managed in the public interest. In the case of numbering, technology drivers appear to be accelerating the exhaustion of this resource.¹⁶

The establishment of a southern Africa regional numbering plan appears to be emerging as a major issue requiring regional cooperation. TRASA has identified numbering issues for targeting in the future. Co-chairs of the numbering initiative include ICASA (South Africa) and Mozambique.

¹⁵ Commercially valuable spectrum fees for cellular and PCS, however, recover through auction whatever the market will bear. Revenues flow directly to the general fund.

The existing fixed-line operators typically administer numbering plans.¹⁷ This appears to be the case in each of the three jurisdictions reviewed. In South Africa, responsibility and planning for numbering is moving from Telkom to ICASA. Responsibility for numbering issues is also being transferred from the incumbent fixed-line operators to the regulators in Mozambique and Namibia.

Spectrum planning and management is conducted within the regulatory bodies in both Namibia and Mozambique. In Mozambique, spectrum management appears to consume a significant part of staff resources available. In Swaziland, the Swaziland Post and Telecommunications Corporation is responsible for spectrum management.

As a general matter, spectrum management appears to be focusing on an area where considerable resources have been devoted in the past. The fact that there are still significant opportunities for better management is probably due in large part to the fragmented nature of the responsibility, the limited size of the market in each country, and the limited resources available to this issue in each country. There appears to be some coordination in the planning of spectrum resources, largely the result of conformance to the ITU Group I band plan. Mozambique and Namibia also indicate that they comply with the TRASA band plan. The TRASA band plan covers a spectrum from 20 MHz to 3100 MHz. The TRASA band plan builds off of the South Africa SABRE band plan. Beyond that, each country appears to be managing their own resources and making their own assignments with little coordination with neighbors, except along borders. Some of those interviewed in different countries recommend even greater regional coordination in the management of spectrum resources.

(ii) Licensing

Licensing of telecommunications services are used for several purposes. First, licenses, especially major ones, can be used to define the rights and responsibilities of operators. Lengthy license provisions may be needed where the legal, competitive, regulatory and institutional environments exist in a jurisdiction that are ill-defined and therefore must be developed through the license itself. Licensing may also be used to clearly establish the

¹⁶ Second lines for the use of facsimile, computer lines and cellular services have dramatically increased the demand for new numbers.

jurisdiction of a regulatory body over a class of services or providers and as a tool for managing (e.g., through assignment and imposed restrictions) the use of spectrum resources to ensure efficient use of the resource with minimal interference between uses.

Licensing, however, can also limit entry, either by design or as a product of cost and delay associated with the licensing process. Generic or class licenses are issued in Europe to certain classes of service providers where individual review is not required. Class licensing, with broad and general application, as a practical matter, functions like regulations.¹⁸

Licenses are issued as a management tool for assigning spectrum resources (i.e., spectrum licenses), and as a tool for managing entry into the delivery of telecommunications (telecommunications licenses.) Telecommunications licenses can be divided into two categories, major licenses, such as those issued for a limited number of cellular and fixed-line operators, and other licenses issued for private network licenses, VANS, or internet service provision. The rationale for licensing certain categories of services, such as internet services or private network licenses is not strong and in certain cases are not being issued, or are issued through class licenses.

The award of major licenses typically requires a great deal of expert and technical assistance that is usually beyond the capacity of the regulator or the ministry to perform without outside assistance.¹⁹ If properly constructed, the goals for the license will be clearly defined in advance so that once issued, the specific obligations contained in the license will be well articulated and unambiguous. Major cellular licenses have been issued for services in all three jurisdictions reviewed, although major licenses for the fixed-line operator and second cellular licenses have typically not been awarded. The process of tendering for a second major cellular license is currently underway in Mozambique and Namibia. The license issued to MTN Swaziland was a 10-year license and is not due to expire until 2008.

Spectrum licenses are issued as a tool to manage this resource. Commercially valuable slices of spectrum are usually bundled into telecommunications licenses (e.g., for cellular service.)

¹⁷ It is generally recognized that as the sector is opened to competition that control of the numbering plan and the administration of that plan needs to be administered by an independent agent.

¹⁸ That is, class licenses, like regulations are designed to apply evenly across a certain broad grouping of providers, rather than having application to an individual provider.

¹⁹ Complex licenses are usually associated with considerable cost and delay to new entry.

That is to say, with respect to commercially valuable slices of spectrum, rights to the resource are included within the terms of a telecommunications licenses (and issued jointly under a major license, such as a cellular license). Other licenses and licensees, such as a value-added network or ISP licenses typically require little regulation. In the region, it appears to be more common to issue these providers standard class licenses with a nominal license or application fee attached. In at least one country visited in the region, the obligation to obtain a license as an ISP provider appears to be ignored. Each of the three countries targeted for review license ISPs, or at least intends to license ISPs. In Mozambique, the regulations and fees surrounding the licensing and associated fee structure applied to ISPs has still to be defined.

The licensing authority of the current Namibian Communications Commission is broad and includes the ability to issue microwave licenses for backbone services and for international gateway services. The NCC has already authorized the MTC to establish its own microwave links in competition with Telecom Namibia. The NCC also has authority over broadcast licenses.

Equipment certification is another area where licensing authority can come into play. Equipment may need to be certified to protect the network or to manage use of the airwaves. As a practical matter, regulators in developing countries rely heavily on the equipment certifications that have been applied in larger markets, including Europe and the US. South Africa is also relied upon by neighboring states for certification of equipment.

(iii) Tariff Review and Pricing

The sector regulator traditionally addresses tariff review and pricing issues. Setting the tariffs or the terms of a license may be conducted either by a regulator in the context of establishing or modifying the conditions of a license, or it may be established as a condition of a concession and included in the license issues. Often the function of the regulator in this area is to ensure that the terms and conditions of service are not unfair and that the prices conform to the license regime. Actual price levels can be set either through cost-based approaches, through the tender process in awarding or reviewing major licenses, or can be through the competitive market.

In Mozambique, the regulator appears to have only a limited opportunity to review tariffs. The regulator sits on a tariff Board that oversees tariffs in the sector. Tariffs must conform to the conditions established for an operating agreement established every three years. The operating agreement for TDM is established as a collaboration between the Ministry of Finance, the CEO of TDM, and the Ministry of Transport and Communications. As indicated earlier, in Swaziland, responsibility for the review of tariffs comes through the Ministry of Tourism, Environment and Communications.

TRASA completed its own Guidelines on Tariffs for Telecommunications Services in September of 2000. TRASA identified the need to harmonize tariff policy. The guidelines recognize the differential nature of the need for regulatory review of tariffs between monopoly and competitive services. More than harmonizing policy, the TRASA document outlines the different ways in which tariffs or pricing policy may be implemented.

(iv) Dispute Resolution

A core function of a regulator is to resolve disputes between consumers/competitors and the regulated providers. As is typical of the region, the administrative and legal processes for resolving disputes in the countries visited do not appear to be well developed in any of the jurisdictions visited. As the sectors liberalize and as penetration increases, so will the potential for disputes among providers and between retail consumers and their providers. The dispute resolution functions of the regulator will need to increase.

(v) Consumer Protection

Consumer protection rules and activities do not appear to be well developed. In Mozambique, no rules exist over matters of consumer protection. No regulator exists in Swaziland and it is not clear to what extent, if any, regulatory responsibility over issues of consumer protection have been absorbed by the relevant ministries. Customer service centers have been introduced by Telecom Namibia, but it is not clear to what extent, if any, the Namibian Communications Commission currently provides customer protection service as a fallback to similar services provided by the cellular operators. At present, they NCC appears to have no jurisdiction over such matters with respect to Telecom Namibia.

(vi) Competition and Interconnection

Competitive issues and interconnection issues are a major concern to potential investors. At the regional level TRASA has established Guidelines on Interconnection for SADC Countries.

While the legal framework appears to support fair competition, the regulatory framework to implement the rules has yet to be established. In Mozambique, draft interconnection regulations are currently out for comment.

In Swaziland, interconnection services have been established through an interconnection agreement between MTN Swaziland and the fixed-line operator. The agreement is not filed with any government agency and is not available for review. In the current monopoly environment, such practices may be reasonable. This lack of transparency may become problematic, however, as the telecommunications sector is liberalized. The regulator may be pressed to ensure non-discriminatory treatment between interconnecting operators, especially those that seek the same services as direct competitors, as with a second cellular operator or multiple ISPs competing with the fixed-line operator's affiliate or ISP business unit.

In Namibia, interconnection services exist between the fixed-line and cellular operators. MTC (the cellular operator) is a separate corporate entity. While the fixed-line operator owns a majority of MTC, according to the cellular operator all transactions taking place between the two companies are on an arms length basis. MTC, however, is licensed to provide its own backbone services if not available from the fixed-line operator or if overpriced.

(vii) Social Policy/Universal Service

Sector economic regulators are often required to promote certain social policies defined in legislation or by the ministry. In telecommunications, universal service policies typically serve as the focus of social policies and are usually implemented by the sector regulatory authority.²⁰ The related issue of enhancing education opportunities in rural areas through telecommunications policy is another goal that may be advanced through sector regulation.

Obligations are typically defined in the framework of license conditions and/or competitively neutral obligations are included within a universal service funding scheme. In Namibia, no license exists over the fixed-line operator and no competitively neutral funding scheme has been established.

Universal service obligations are permitted under the SADC protocol for the sector, but none have as yet been defined in any specific way in Mozambique, Swaziland, and Namibia. In contrast, in South Africa, the universal service obligations are included in the license obligations of Telkom (the fixed-line operator) and the two cellular operators. In addition, provisions have been made for a universal service funding mechanism.

TDM carries an obligation to provide universal service. With a teledensity of only 0.46 per 100 lines, it is not clear that this obligation has any bearing on the performance of the Company. 82% of the lines in Mozambique are in the three largest cities with virtually no service in rural areas.²¹ Sector reforms in Namibia and Swaziland will likely target universal service objectives in the legal reforms and in the establishment of license terms over the fixed-line operator.

From the standpoint of investor and competitive interests and concerns, two issues arise in connection with universal service mechanisms. First, investor obligations need to be clearly defined and, to the extent that obligations are embedded within a license, some form of financial or market reward and a demonstration or showing must be made verifying the obligations. In South Africa, satisfactory performance on build out and other service obligations provides Telkom with an opportunity for an additional year of exclusivity. However, efforts to satisfy universal service obligations through licensing conditions may challenge issues of fairness and level-playing-field requirements as telecommunications markets are opened. Competitive neutrality may argue for more transparent and competitively neutral mechanisms of both support and disbursement. License requirements typically compromise competitive neutrality and frustrate the development of competitive markets. Licensing approaches, may, however, provide a useful mechanism for advancing universal service where there is only one provider or there are a limited number of licenses

²⁰ South Africa has a separate Universal Service Agency, but oversight and funding comes through the sector regulator.

²¹ BMI at 328.

and universal service obligations become part of the tender process in the selection of licensee.

Outreach/Transparency

With the possible exception of Namibia, sector participation by stakeholders in the formulation of policy or policy implementation appears to be limited and can be strengthened.²² Regulators in Mozambique have included a broad range of stakeholders in the review of draft regulations, but copies of the regulations were limited (e.g., unpublished or unavailable via the web) and, at the time of this report, were only available in Portuguese.²³ Mozambique, does however, have a web site under construction with plans for English and Portuguese versions of the site.²⁴ Namibia underwent an extensive policy development process that appears to include representation of a broad range of interests. Outreach in policy in Swaziland appears limited. The policy is under Cabinet consideration and the draft is currently unavailable for review.

Regulation and the Internet

The potential uses of the internet in relation to regulation is a new and developing area even in mature regulatory environments. It extends well beyond the simple access to information and issues of regulatory transparency. The internet itself can be used as a forum for regulatory proceedings, allowing industry and the public widespread access for review and comment on new regulations or policies. The resources that accompany the internet can be used for facilitating efficient communications and providing the public access to information about the industry and to decisions made by the sector regulator. The internet can also be used for displaying information about the industry and individual operators, for consumer complaints, for warning the public of industry violations, for warning the public and press of potential bad actors, for display of licenses or certified providers, and for displaying tariff and pricing information to retail and wholesale service providers along with the terms and

²² The 1999 Telecommunications and Regulatory Framework for Namibia, (published by the Ministry of Information and Broadcasting) was the product of Policy workshops in 1995 and 1997. A draft was distributed to participants and stakeholders and harmonized with the SADC protocol and other regional framework initiatives into its current form by the Ministry of Information and Broadcasting.

²³ Most private sector participants interviewed indicated that their participation could be strengthened through the establishment of or more cooperation with industry peers or international counterparts.

²⁴ <http://www.incm.gov.mz/>

conditions of service. In short, the web offers great potential for reducing the cost and burden of regulation on both the industry and consumers, while offering new and potentially less onerous methods of regulation.

The internet provides a promising resource for the sector. The relationship between the resource and the information policy, document handing and disclosure policy, and strategies for pursuing less formal and heavy handed methods of regulations through the internet are all interleaved. This is an evolving area, but the early stage of development of regulators in the region may enhance opportunities to make fuller and more effective use of resources than in more developed regulatory environments.

C. Operators

1. Fixed-line

In the countries reviewed, the fixed-line operator remains a government owned monopoly service provider. In Mozambique, however, Telecommunicacoes De Mozambique (TDM) became a legal corporate body with administrative and financial autonomy from government on January 1, 1993.

In Namibia, Telecom Namibia (“TN”) was established as a subsidiary of the Namibia Post and Telecom Holdings in August of 1992. At present, TN is not regulated by the sector regulator NCC, but the new draft law contemplates bringing TN under the jurisdiction of the NCC soon after a new Communications law is established.

In Mozambique, TDM was created in a move to create greater accountability. It is a commercial company with financial autonomy and responsibilities separate from government. A seven-member Board of Directors manages it. The Company operates under a three-year program contract entered into between the Ministry of Planning and Finance, the Minister of Transport and Communications, and the Chairman of the Board of Directors of TDM.

In Swaziland, fixed-line services are still owned by government, but are provided through a separate corporate entity, the Swaziland Post and Telecommunications Corporation

("SPTC"), established in 1986. The SPTC is the exclusive provider of fixed-line services, backbone services for cellular and data, and international gateway service for voice. It is responsible to the Minister of Tourism, Environment and Communications. The SPTC also carries out certain regulatory functions, such as spectrum management and equipment type approval. SPTC has exclusive jurisdiction over basic telecommunications services.

There are currently about 120,000 lines in Namibia, 80,000 in Mozambique and about 40,000 fixed-lines in Swaziland.

To date, none of the three have undertaken steps to completely privatize the fixed-line operator, although the fixed-line operator has been scheduled for privatization in Mozambique since 1997. Indeed, in the SADC region, only two countries, including South Africa, (the other being the Seychelles) have undergone any privatization of the fixed-line operator.

South Africa is poised to open up the fixed-line segment of the market to competition, likely in the form of a duopoly sometime during 2003. Only Ghana and Uganda have opened up the system to "green-field" fixed-line operators, although a recent court ruling in Zimbabwe should open the market for fixed-line services there as well. There is evidence in Namibia that the electric company is already placing telecommunications facilities in potential competition with the fixed-line operator. In Namibia, some competition already exists for backbone cellular services more typically reserved to the fixed-line operator. There is no evidence of movement to competition for fixed-line services in either Mozambique or Swaziland. Mozambique is currently considering a long term exclusivity package for TDM, that would appear to resemble the South African package offered to Telkom in 1997, as part of arrangements related to attracting strategic investors in the fixed-line operator.

2. Mobile and Cellular

Each of the countries has cellular operators with varying degrees of separation from the fixed-line operator. In Mozambique, the cellular provider operates under the name of mCel, but is owned entirely by TDM, the government-owned fixed-line operator. It is operated by Telecommunicacoes Movies de Mozambique Lda (TMM). TMM is a joint venture between TDM and Deutsche Telpost Consulting Gmbh (DETECON).

In 1992, the government of Namibia declared its intent to open up the telecommunications playing field and to license new entrants by 2000. Mobile Telecommunications Company (MTC), a joint venture between Namibia Post and Telecom Holdings, and Telia International and Swedfund International has operated a GSM network since 1994. Namibia Post and Telecom Holdings maintains a 51% ownership share in the venture. The Namibian Communications Commission provides some regulatory oversight of MTC.

MTC has obtained a license to provide its own microwave backbone services. According to MTC, the license granted confers on MTC the authority to extend the backbone wherever it is needed. MTC has also applied for, but not received a license for self-provision of an international gateway for voice communications. This authority to provide backbone service appears to stand in sharp contrast with neighboring jurisdictions, such as South Africa, where only the fixed-line operators can provide fixed-line services.²⁵

In Swaziland, cellular service is provided through MTN Swaziland, 30% owned by MTN International. MTN maintains exclusivity of cellular services through 2008. Service and price have not proven to be an issue, although the current fixed-line operator (Swaziland Posts and Telecommunications Corporation) maintains a 51% share in MTN Swaziland. Under the terms of the MTN Swaziland license, backbone services can and are established directly by MTN Swaziland unless the landline provider already has capacity available. International gateway services must be through the fixed-line operator. After only two years of operation (licensed in 1998) cellular service is already surpassing the fixed-line network.

Cellular penetration in two of the three countries is approaching or exceeding the penetration levels achieved by the fixed-line operator. In Namibia, there are approximately 25,000 contract subscribers and 35,000 prepaid subscribers.²⁶ In Mozambique, there are approximately 29,000 subscribers. In Swaziland, the subscriber base has reached almost 32,000 in two years.²⁷

²⁵ South African law permits the provisioning of such services if Telkom cannot provide the service itself.

²⁶ TRASA Strategic Business Plan at 34.

²⁷ This was the subscriber base that was estimated for after 10 years of service. Almost all the market comes from pre-paid calling services.

It is common to have some level of competition for cellular services. South Africa and Botswana currently license two providers. About half the countries in Sub-Saharan Africa allow either partial or full competition for mobile services.²⁸ While all three of the jurisdictions reviewed herein do not currently allow for multiple cellular operators, only Swaziland contains license terms that may prevent additional competition in the sector.

Global System for Mobile Communications (GSM) is the only protocol currently being used for cellular communications in the three countries under review. GSM is the preferred standard throughout the region, although a few older systems exist in the region.²⁹

In addition to the tender process that is underway for 2nd licenses in Mozambique and Namibia, Mozambique is also reviewing the mCel license. A draft of the new mCel license was made available to RAPID for comment.

In addition, Globalstar, the satellite mobile wireless company has been licensed to provide service in Namibia.

3. ISPs

ISP service provision is undergoing varying degrees of liberalization. In Mozambique, fixed-line and backbone services required by the ISP must be purchased from the fixed-line operator. However, international data gateway services are open. This is important in Mozambique because international gateway services that are provided by the fixed-line operator have presented a bottleneck constraint on service. There are currently seven ISP providers, including TELEDATA, a joint venture between TDM and Portugal Telecom.

In Namibia, the internet sector is open with more than seven ISPs.³⁰ The largest is Africa Online, which uses UUNET's 2 Mbps backbone in South Africa to service its customers off of 13 points of presence in the country. According to competing ISPs, the biggest threat to the existing ISPs appears to be the introduction of IWay from Telecom Namibia. IWay is an

²⁸ BDT at 12.

²⁹ Specifically, the Total Access Communications System (TACS) and the Advanced Mobile System (AMS). However, each are expected to upgrade to digital standards in the near future. TRASA, Frequency Allocation Plan of SADC for 20 – 3100 MHz, May 2000.

³⁰ TRASA Strategic Business Plan at 34.

ISP service being introduced as a separate business unit, but not as a separate corporate entity from TN.

According to some in-country sources, Telecom Namibia has used its position as the monopoly fixed-line operator to secure an artificial advantage in the market. IWay, through TN, has secured an 8 Mbs connection to the Netherlands that could put the pre-existing ISPs at a significant disadvantage.

With the incumbent operator now in the ISP business, there may now be a basis for the NCC to license VSAT services. In the past, the NCC has not issued such licenses for VSAT.

In Swaziland, there are currently several ISPs, but given the emerging role of the Swaziland Posts and Telecommunications Corporation in the ISP market, there is rising concern among existing providers that they can gain non-discriminatory access to international gateways. The subscriber base in Swaziland is currently about 4,000.

At present, the market for ISP services is fully competitive in each of the jurisdictions reviewed. The mounting threats from the introduction of ISP services from the fixed-line operators threatens to reduce the number, potentially through the artificial advantage of their control over international gateways or through control over backbone networks.

D. Countries

1. Mozambique

Teledensity is still very low in Mozambique. Only about 80,000 lines exist giving a teledensity of only 0.46%. mCel has about 29,000 cell phone users, but capacity constraints appear to limit the quality of the service that is being provided.³¹ Similar concerns exist with respect to internet access for those that rely on TDM for access to the international gateway.

While certain reforms have taken place under the 1992 Act and 1999 Act, much of the regulatory framework in Mozambique still needs definition. The regulator in Mozambique

³¹ Of the countries visited, there is the only one where cellular service has not yet been able to match the fixed-line penetration levels of the incumbent provider.

appears to play a role that focuses on spectrum planning and management, licensing, and equipment type approval. The regulator is also responsible for monitoring TDM's performance. The current role of the regulator in providing consumer protections and dispute resolution is unclear.

The fixed-line operator has been scheduled for privatization since 1997 but has not been realized to date.³²

While Mozambique has just recently passed a new communications law, the law still needs to be translated and reviewed. Draft regulations implementing aspects of the law have just recently been distributed for comment. These regulations are also in Portuguese and need to be translated prior to review.

Mozambique is also in the early stages of developing a tender for a 2nd cellular license. Given the integral nature of the first in relation to TDM, there are going to be major regulatory issues that will need to be resolved in order to ensure fair competition between the 2nd and 1st cellular licensees. This fact may dull investor enthusiasm for the 2nd license. The World Bank is currently lending some assistance to the regulator in establishing a tender process. Assistance will also be needed to ensure arms length and transparent transactions between TDM and mCel, the 1st licensee. A new or revised version of the original mCel license is currently under review in draft form.

There also appears to be some interest in privatizing the fixed-line operator, although details and a timeline do not appear to be set.

Compared with neighboring jurisdictions, import restrictions and local labor restrictions in Mozambique seem to be presenting considerable impediments to development of the sector and to provision of services. There is also a 30% customs duty on hand sets for cellular and a 17% value-added-tax, which limits the development of the retail market for equipment in country (as hand sets can be readily purchased in bordering South Africa at lower prices).

³² TRASA Strategic Business Plan at 34.

The key issues confronting Mozambique appear to be the (1) further development of regulations, (2) further definition of the structure, staffing and responsibilities of the regulator, (3) tender process for the 2nd Cellular license; and (4) initiatives related to the potential privatization of the incumbent operator.

In its efforts to promote private sector competition, the Communications Law requires TDM to keep the public telecommunications network open to all users on an equal and non-discriminatory basis with respect to access, quality and pricing.³³ Based on in-country visits, we know that the regulator has not yet established the regulations and mechanisms needed to ensure compliance by TDM.

International gateway services via VSAT are openly competitive. This should greatly aid the development of ISP services in the country. Limits to the potential market in remote areas seem to restrict its potential to the more urban areas. Backbone linkages are still the exclusive right of TDM.

2. Namibia

Namibia already has one of the highest penetration levels of fixed-line service with a teledensity level already over 9% (108,000 fixed exchange lines in 1999), a level that is among the highest in the SADC region. MTC, the cellular operator, has approximately 75,000 customers.

Namibia hosts one of the most advanced telecommunications networks in Southern Africa, supported by the latest technologies and network management systems.³⁴ The network switches are completely digital and TN is using Ultra-Phone technology to deploy fixed wireless services in remote areas of the country. TN boasts a figure of 62.6 lines per employee. Nevertheless, telecommunications in Namibia is still provided by monopoly service providers. Telecom Namibia Ltd is the monopoly fixed-line operator owned exclusively by the Government of Namibia.

³³ BMI at 324.

³⁴ BMI at 332.

Mobile services are provided by Mobile Telecommunications Company (MTC). MTC is a joint venture between Namibia Post and Telecom Holdings, Telia International and Swedfund International.

For 1999 (September 30 year-end), TN reported revenues and growth in revenues of \$588 million and roughly 30 percent respectively. TN reported an after-tax profit of \$41 million. The net book value of plant at the end of the 1999 fiscal years was \$782 million.

Namibia is in the process of drafting legislation to be consistent with the 1999 Policy and Regulatory Framework.³⁵ The policy document was the product of a transparent consultative process similar to that undergone in the Republic of South Africa in 1995 and 1996. This document was used to harmonize policy initiatives between the SADC Protocol on Transport, Communications and Meteorology; the Model Regulatory framework for Telecommunications (SATCC-TU 1998); and the First National Development Plan (NDP) for Namibia. Namibia enjoys a reputation for having a strong legal system to support effective dispute resolution. Although Namibia does not as yet have a Competition Act, there is pending legislation and it is anticipated that a Competition Bill would pass at roughly the same time that a new Communications Bill would be passed (as early as next March.)

The policy document provides a solid framework for the sector and appears to be consistent with commitments made under the SADC protocol. The policy document generally recognizes that the sector requires liberalization in order to attract necessary investment. The policy document contemplates complete opening up of the telecommunications sector by 2004. The policy clearly defines the functions of the regulator and provides mechanisms to help ensure it operates as an independent regulator in the management of the evolution of the sector.

Liberalization of the sector may be tied to success in attracting outside strategic investment in Telecom Namibia. The policy document proposes a two-year period of exclusivity, yet some inroads to opening the sector appear to be ahead of any formal policy. News articles suggest that the national electric company is positioning itself as a competitor to Telecom Namibia

³⁵ Ministry of Information and Broadcasting, Telecommunications Policy and Regulatory Framework for Namibia.

and there are indications that a competitive pay phone operator is already starting to operate in the country.

From the standpoint of sector liberalization, there are three policy challenges in Namibia.

- Telecom Namibia remains a parastatal organization. While it appears to be performing well in that capacity in terms of network expansion and the use of modern equipment, its nature presents a threat to liberalization initiatives and could significantly dampen competition in certain areas. In mid-October, 2000, Telecom Namibia introduced a new business unit equipped to provide internet services at retail. TN is already the sole provider of internet access services. This development puts the fixed-line operator in direct competition with the five or more well-established ISPs that require access to international gateways through TN's bottleneck facilities. Ties between Telecom Namibia and MTC will also present a problem for investors considering a bid on the 2nd cellular license.
- Second, the current regulator in Namibia was created under the Post and Telecommunications Act of 1992. Despite the organization's existence, its size and scope of authority are extremely limited and therefore, it cannot function effectively in providing oversight and dispute resolution in a competitive environment. This underscores the need to completely separate MTC from TN, separate TN from government, or to create a fully functional and independent regulatory authority with strong oversight of competitive concerns. These deficiencies may be addressed, in part, under pending legislation that would reformulate and expand the current Namibian Communications Commission (NCC) into a Namibian Information and Communications Regulatory Authority (NICRA).
- Third, Namibia only has one cellular company. Some work has begun in establishing a second cellular operator. However, given the ownership interests of TN in the existing cellular operator, and the government ownership of TN, there is concern among potential investors that fair competition during the introduction of a second operator will be jeopardized. This further underscores the need to completely separate MTC from TN, separate TN from government, or create a fully functional and independent regulatory authority with strong oversight of competitive concerns.

The most pressing issues facing Namibia relate to (i) the establishment of a new communications law, consistent with the policy statement, (ii) the establishment of an effective regulator and, (iii) the establishment of a license over TN. The pending legislation contemplates a period of only 90 days after the passage of a new law for the establishment of a license over TN.

3. Swaziland

In Swaziland, fixed-line services are still owned by government, but are provided through a separate corporate entity, the Swaziland Post and Telecommunications Corporation (SPTC), established in 1986. It is responsible to the Ministry of Tourism, Environment and Communications. The SPTC also carries out certain regulatory functions, such as spectrum management and equipment type approval. SPTC has exclusive jurisdiction over basic telecommunications services.

Cellular service is provided through MTN Swaziland, 30% owned by MTN International. MTN maintains exclusivity over cellular services through 2008; SPTC maintains a 51% share in MTN Swaziland. Under the terms of the MTN Swaziland license, backbone services can and are established directly by MTN Swaziland unless the landline provider already has capacity available. International gateway services must be through the fixed-line operator. After only two years of operation (licensed in 1998) cellular service is already surpassing the fixed-line network.

Swaziland is in the process of a cabinet level review of a policy statement that would form the basis for a telecommunications bill. Discussions with staff in Swaziland suggest that the telecommunications policy reforms will build on the SADC protocol for telecommunications and model legislation. The bill is currently unavailable for comment. Assistance with regard to the bill (structure in regard to the bill) can be sought in connection with the RAPID project.

The major concern among ISP providers is the role that the fixed-line operator would play in directly providing ISP services. According to one ISP, the fixed-line operator is not “officially” an ISP provider, but is merely providing the infrastructure needed by ISPs. Reports from competitors suggests otherwise. This raises a number of competitive issues and

concerns for ISP providers. The quality and price of service provided to ISPs has not proven to be a problem to date. International gateway services are provided through the fixed-line operator to South Africa

The major issues confronting Swaziland will be getting the new law passed and a new regulator established. Current license conditions constrain competitive entry in cellular telecommunications. If the SPTC enters the ISP market, then the regulator will need to be able to address the inevitable competition issues and the associated issue of dispute resolution.

E. Regional Coordination (TRASA)

Regulators in SADC member countries have already taken a key step towards regionalizing certain facets of sector regulations through the formation of the Telecommunications Regulators Association of Southern Africa (TRASA).³⁶ TRASA was formed to help harmonize regulations and policies in the region and to help promote sustainable development in the sector in an investor friendly environment.³⁷

There are currently eleven autonomous regulators in the region. Of the 14 SADC nations, only the Democratic Republic of the Congo (DRC), the Seychelles and Swaziland do not have separate regulatory bodies. The eleven regulators are full members of TRASA and the three other countries are adjunct members.

At the time we visited with TRASA, it was physically situated within South Africa at ICASA, but in the process of relocating to Gaborone, Botswana within the new offices of the Botswana Telecommunications Authority (BTA). At present, TRASA is in the process of building a functional and sustainable organization. It currently has but one employee, the

³⁶ Regional initiatives are needed for several reasons. (i) Certain issues are fundamentally regional in nature. Significant diseconomies of scale or scope may factor into the costs of regulating the sector if this fact is ignored, especially for some of the smaller member nations. (ii) Investor capital will be more readily accessed if a regional template for participation in the sector is developed. Sector participation by new entrants will be enhanced and expanded if there are common and familiar practices and rules that exist in each of the member countries. (iii) There is little experience with economic regulation in the region.

³⁷ The TRASA organization is early in its development, but in concept resembles similar associations in the United States such as the National Association of Regulated Utility Commissioners and the National Regulatory Research Association.

Programme Manager, and an elected Executive Board including a Chairman, a Vice-Chairman and a Treasurer. Positions on the Executive Board are revolved through TRASA members.³⁸

In August of 2000 TRASA completed a business plan for the organization. The business plan provides guidance for the development of the organization over the next five years. It establishes goals for funding, staffing, and identifies key issues for policy development and harmonization.

The functions listed for the organization include the following:

- Facilitate capacity building;
- Facilitate the development of regional standards;
- Encourage investment in the sector through sound policies and regulations;
- Harmonize regulations and policies;
- Monitor and promote better service quality and standards;
- Monitor international trends to promote development;
- Distribute relevant information to members and key stakeholders; and
- Promote cost effective and efficient communications.

The TRASA business plan calls for the establishment of a “new TRASA” with five employees. Key to a sustainable future is member funding from subscriptions.³⁹

RAPID can play a key role in assisting TRASA, especially during its early stages of development. TRASA as an organization needs to be self-sustaining. Assistance provided to the organization will need to assist in providing a bridge of technical assistance to a sustainable future for TRASA. Assistance in identifying regulatory models and practices that are suitable to the region from outside appears to be a likely need. Priority issues for assistance identified by TRASA are listed in Annex IV.

³⁸ The TRASA structure also includes functional committees. Current committees include (I) Universal Service and Licensing; (ii) Tariffs and Interconnection; (iii) Frequency Planning, Advanced Services and Technology; (iv) Numbering and Standards, (v) Human Resources.

³⁹ The current plan calls for initial subscription fees of \$5,000 growing to approximately \$15,000 by the fourth year (2003/2004).

Further guidance and cooperation will be needed from the Executive Board and the Programme Manager of TRASA.

IV. Recommendations

Work Plan/Next Steps

The regulatory and policy audit that provided the underpinnings of this report, comes on the heels of a comprehensive review of the five-year RTRP initiative by Booz-Allen and Hamilton, Inc, in December of 1999. Annex II provides a brief summary of the recommendations from the Booz-Allen and Hamilton report for easy reference.

While three countries were the focus of this audit and, more generally for work under Task Order 2.1, some consideration should go into the reevaluation of the continued level of support for the three countries pre-selected. That is, it may be appropriate to remain flexible if any of these countries face unexpected policy reform impediments, as seemed to plague the RTRP initiative in the early stages of the initiative with respect to Zambia and Tanzania. Based on the October planning workshop with the 14 SADC countries, it also appears that there are a number of countries that are interested in immediate assistance and may be poised to and better positioned to take significant steps toward policy reform.

A. In-Country Assistance (Mozambique, Swaziland, Namibia)

The outline of work and activities below is split on two paths. First, targeted in-country assistance is needed in each of the jurisdictions. First and foremost, there is a need to review draft legislative proposals. New laws, reportedly consistent with the SADC Protocol are under development in both Swaziland and Namibia. While a new law was established in Mozambique at the end of 1999, it still needs to be translated and reviewed together with draft regulations that are currently out for comment.

Targeted assistance with the law will need to be complemented with further assistance in developing effective regulatory institutions. The assistance needed here will depend critically on the stage of implementation and the ability of member nations to absorb the assistance.

Experience of the past suggests that countries in the region are not always ready to receive the targeted assistance provided.

Immediate priorities in each of the countries identified to date include the following:

Mozambique:

1. Translate and evaluate the state of the law and proposed regulations.
2. Translate and evaluate proposed regulations covering interconnection.
3. Review structure, responsibilities and staffing of the Mozambique regulator.
4. Assist in identifying regulatory issues that may need to be addressed as a prerequisite to starting the tender process for a 2nd cellular license. Review of draft mCel license.
5. Institutional capacity building within the regulator.
6. Promote private sector participation and transparency on regulatory and policy matters.

Swaziland:

1. Review of draft telecommunications law.
2. Review of the structure, responsibilities, and staffing of the newly formed regulator.
3. Promote private sector participation in policy discussions through workshops and opportunities for comment on the Act or on legislation.

Namibia:

1. Review of draft telecommunications law and relationship to new competition law.
2. Review of the structure, responsibilities, and staffing of the newly reformed regulator as contemplated in the 1999 policy statement or revisions.
3. Promote private sector participation in policy discussions through workshops and opportunities for comment on the Act or on legislation.

With respect to in-country assistance, it is assumed that policy development within the sector will be in-line with its regional protocol. The protocol, however, is broadly framed and there is substantial policy discretion and associated investor uncertainty within each country's telecommunications sector. Both issues can be addressed through broader participation by

the private sector or potential outside investor interests. In line with the recommendations of Booz-Allen and Hamilton, this suggests that more effort should be made to include the private sector in either defining broad policy goals, and/or in the various steps that ministry officials and regulators take to implement those policies.

The Booz-Allen and Hamilton report also emphasizes the need to advance privatization initiatives relating to the current government owned fixed-line operators. While this is an area that deserves emphasis from the standpoint of competitive entry and added investment, the communications protocol itself appears to broadly frame the issues with respect to the nature, scope, and competing policy considerations that may weigh into restructuring or privatization initiatives. In short, the commitment to privatize has not been clearly articulated through the regional protocol. Attempts to address this issue with any clarity is apparently left to the individual countries. Before this can take place each of the member countries will need to define clear objectives for the restructuring of existing institutions.

Beyond issues of the broad enabling framework are the longer-term issues related to strengthening the regulatory institutions. Building the capability of the regulator is an issue that is a broad-based and well-recognized need in each country visited. Section III.B. describes the functions of an economic regulator. In general, it appears that the priority areas for assistance in-country relate to the following areas: (i) dispute resolution processes, (ii) competitive issues and interconnection policy, (iii) integrating and enabling effective use of the internet for regulation, (iv) document management and public access to regulatory resources, (v) information policy, and (vi) licensing. Individual circumstance, however, will likely define the priorities for each jurisdiction.

B. Regional Assistance

SADC currently has a regional association dedicated to the promotion of harmonizing and empowering regulators within the region. In its present form, the organization has only one staff person and limited resources. However, the institution's business plan calls for expanding its scope and capabilities, establishing an Executive Board, and occupying office space courtesy of the Botswana Telecommunications Authority in Gaborone.

Recently, the ITU hosted a conference in Botswana aimed at promoting similar institutions to TRASA. TRASA itself is an institution in need of support to strengthen its own member needs.

The development of regional templates, research, and experience will be enhanced if regional models, templates, knowledge, research and experience can be developed through a regional association.

Assistance to TRASA should build on the areas of need that have already been identified by its members. Areas where regional cooperation can have significant impact include those of spectrum planning and management, and the planning and management of numbering resources. Both have already been targets of Committee work within TRASA. And a regional band plan has been established by TRASA.

Other promising areas assistance to TRASA include the following:

- (i) the development of a consultant's handbook to increase access to regulatory specialists worldwide;
- (ii) the establishment of a standard curriculum to expand the capacity of existing and evolving institutions;
- (iii) the identification of appropriate models and/or best practices in various facets of regulation and licensing (e.g., fair trading, merger review, cross-ownership restrictions, service quality standards, collocation and interconnection practices);
- (iv) the development of model information and disclosure policies;
- (v) the creation of strategies for use of the internet in providing regulatory services are other promising areas to develop on a regional basis;
- (vi) the analysis of emerging technology and its implications for policy; and
- (vii) the development of strategies for promoting universal service, especially in relation to attempts to open or liberalize the telecommunications sector.

Annex I

A. TELECOMMUNICATIONS WORK GROUP REPORT

Country	Univer sal Service Fund	Policy & Legislation		Regulation	Market Operation			International Gateway
		New Policy	New Law	Autonomous Regulator	Incumbent Privatization	Competition		
						Mobile	Internet	
Angola	-	Y	Y	Y	N	N	F	
Botswana	-	Y	Y	Y	N	D	F	
DRC	-	N/A	N/A	N/A	N/A	N/A	N/A	
Lesotho	✓ I/P	Y	Y	Y	I/P	N	F	N
Malawi	N	Y	Y	Y	I/P	D	F	N*
Mauritius	✓ I/P	Y	Y	Y	I/P	D	M I/P	I/P V-N
Mozambique	✓ I/P	Y	Y	Y	N	N	F	N D-Y
Namibia	N	Y	I/P	Y	I/P	D	F	D-Y V-Y
Seychelles	-	Y	Y	N	Y	D	F	-
South Africa	✓ Y	Y	Y	Y	Y	F	F	N
Swaziland	^R I/P	I/P	I/P	N	N	N	F	-
Tanzania	^R I/P	Y	Y	Y	I/P	F	F	V-N D-Y
Zambia	^R I/P	Y	Y	Y	N	F	D	V-N D-Y
Zimbabwe	✓ I/P	Y	Y	Y	N	F	F	N**
Progress/Y		12	11	11	2	10	12	

* Discussion ** Legal challenge ✓ Law in place

B. TELECOMMUNICATIONS WORK GROUP REPORT

Countries	License Requirements		(Cell) Major license	Broadcast	
	Fixed	ISP		Liberalization	Combined Regulation
Angola	-	-	-	-	-
Botswana	-	-	-	-	-
DRC	-	-	-	-	-
Lesotho	I/P	?	Y	Y	N
Malawi	Y	Y	Y	Y	Y
Mauritius	Y	Y	Y	I/P N	N
Mozambique	I/P	Y	Y	Y	N
Namibia	I/P	Y	Y	Y	Y
Seychelles	-	-	-	-	-
South Africa	Y	Y	Y	Y	Y
Swaziland	I/P	N	Y	Y	Y
Tanzania	Y	Y	Y	Y	N
Zambia	N	Y	Y	Y	N
Zimbabwe	I/P	Reg	Y	I/P	N

I/P - In Process
 ? - Note sure
 N - No
 Y - yes

**C. TELECOMMUNICATIONS WORK GROUP REPORT
REGULATORY AUTHORITY**

Countries	Full Time? Board	How many? Board Members	Executive functions	Appr. Authority
Angola	-	-	-	-
Botswana	-	-	-	-
DRC	-	-	-	-
Lesotho	PT*	5	N	Minister
Malawi	PT	9	N	P
Mauritius	Y	5	N	Prim Min*/**M
Mozambique	I/P	I/P	IP	IP ↑
Namibia	Y	7 (no less 6 and no more than 9)	NA	Minister
Seychelles	-	-	-	-
South Africa	Y	6	Y	P
Swaziland	N	NA	NA	NA
Tanzania	PT	7	N	P/Minister
Zambia	PT	9	N	Minister
Zimbabwe	PT	6	N	P

* Chief – FT

** In consultation with leader of opposition

PT - Part time

I/P - In process

P - President

NA - not applicable

Y - yes

N - no

D. TELECOMMUNICATIONS WORK GROUP REPORT

Countries	What needs to be done / Assistance required
Angola	
Botswana	
DRC	
Lesotho	Regulator training/capacity building in Ministry
Malawi	Infrastructure improvement at border areas Finalize MICAPS/capacity building and training
Mauritius	Tariff costs/training Assistance in promoting investment in advanced technology
Mozambique	Implement regulations under law Capacity building – USF/Tariffs
Namibia	Draft legislation, capacity building
Seychelles	-
RSA	-
Swaziland	Drafting legislation/regulations and guidelines Capacity building within Ministry and Regulator Restructuring operator
Tanzania	Tariff re-balancing, Arbitration
Zambia	Restructuring/legal drafting – harmonization Capacity building – Regulator and Ministry
Zimbabwe	Draft license Capacity building (Reg. Ministry) Restructuring incumbent

* MICAPS – CROSS CUTTING ACROSS COUNTRIES

- E. TELECOMMUNICATIONS WORK GROUP REPORT BACK**
Assistance required re: capability building
- 1. Tariffs**
 - 2. Interconnection**
 - 3. Spectrum management**
 - 4. Dispute resolution**
 - 5. Policy – implications of new technology**
 - 6. License development**
 - 7. Type approval mechanisms /Standards**
 - 8. Universal service fund management**
 - 9. Prepare legal instruments**
 - 10. Numbering system**
 - 11. Regional assistance – TRASA (action plan)**
 - 12. Training in new technologies**

Annex II. Summary of Key Recommendations from Booz-Allen and Hamilton Review of RTRP

1. Building policy ownership through higher level focus/National Telecommunications Forum approach
2. Developing/Promoting a “Regional Approach”
 - a. “circuit rider” concept
 - b. individual country funding
 - c. private donations for TRASA
3. Greater emphasis on privatization
4. Continued emphasis on capability building and long-term assistance to regulators. Provide more assistance to operators. Provide and maintain timely information about the telecommunications sector to prospective investors (e.g., maintain up-to-date web site; regular newsletter).
5. Facilitate smooth transition between RTRP and RAPID (continue in areas where successes were close, such as pending legislation in Mozambique, Namibia, Swaziland)
6. Target one or a limited number of jurisdictions (i.e., create a non-RSA success story to serve as an example)
7. Create a standardized education curriculum
8. Continue to provide long-term advisors to assist in specified areas.
 - a. Drafting regulations
 - b. Tariff rebalancing and determinations of interconnection charges
 - c. Fine-tuning licensing
 - d. Lend advisory support to Ministries
 - e. Restructuring advisory support to national telecommunications operators

Annex III List of Sector Participants Interviewed

Republic of South Africa

1. Mr. Andrew Bing, International Business Development, MTN
2. Mr. Izaak Coetzee, Senior Manager, Telkom
3. Mr. Gabriele Celli, Executive, Regulatory, Planning and Support, Telkom
4. Mr. Simon Moshiro, TRASA

Botswana

5. Mr. Pieter Snyman, Operations Manager, Botsnet
6. Mr. Cas Lotter, Communications Solutions
7. Ms. Salome Bopa, BTA

Mozambique

8. Mr. Bruce R. Bolnick, Harvard Institute for International Development
9. Mr. Joao Jorge, Director Nacional, INCM
10. Mr. Helder Santos, Director General, Virtual Connection
11. Mr. Gerhard May, Director General, Telecomunicacoes Moveis de Mocambique, LDA (TMM)

Swaziland

12. Ms. Thobile Diamini, Ministry of Tourism and Communications
13. Ms. Chazile Magongo, National Coordinator, Ministry of Public Works and Transport
14. Mr. Lachezar Karadjov, Real Image Internet
15. Mr. Noel Meier, CEO, MTN Swaziland

Namibia

16. Mr. Warren Boysen, Director General, UUNET
17. Mr. Guve, Managing Director, MTC
18. Mr. Jan Kruger, Namibia Communications Commission
19. Mr. Ferdinand Tjombe, Corporate Communications and Public Relations, Telecom Namibia

Annex IV TRASA Priorities

1. Top priorities
 - a. Universal Service (workshop and guidelines)
 - b. Licensing (workshop and guidelines)
 - c. Training/Capability building of regulators

2. Website
 - a. Database/Information systems

3. Spectrum
 - a. Feasibility study re: use of 800 Mhz for broadcasting and wireless local loop sharing
 - b. Band plan above 3 Ghz

4. Numbering
5. Standards
 - a. Quality of service

6. Costing methods and regulatory accounts
7. Competition/Convergence/Voice over IP
8. Administrative rules and dispute resolution
9. Database of regional technical specialists
10. Interconnection benchmarking and wholesale pricing
11. Regulatory Issues related to internet and promoting e-commerce