

**STRATEGIES FOR PROMOTING ACCESSIBILITY AND
ACCOUNTABILITY IN PUBLIC SERVICE DELIVERY:**

UTILITY REGULATION IN AFRICA

**Governance and Public Administration Division (GPAD)
Economic Commission for Africa (ECA)**

A Working Paper

April 2007

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ACRONYMS

EAC	East African Community
EARPTO	East African Regulatory Posts and Telecommunications Organization
ECA	Economic Commission for Africa
ECOWAS	Economic Community of West African States
GDP	Gross Domestic Product
IMF	International Monetary Fund
IFI	International Financial Institutions
MDG	Millennium Development Goal
PPIAF	Public Private Infrastructure Advisory Facility
OECD	Organization for Economic Cooperation and Development
RERA	Regional Electricity Regulators Association of South Africa
RTR	Southern Africa Regional Telecommunications Restructuring
SADC	Southern African Development Community
SATCC	Southern African Transport and Communications Commission
SOE	State Operated Enterprises
TRASA	Telecommunications Regulators Association of Southern Africa
USAID	United States agency for International Development
WATRA	West African Telecommunications Regulators Association

Executive Summary

Despite the implementation of structural adjustment programmes, which addressed public enterprise reform, government ownership is widespread in sub-Saharan Africa in both competitive and other sectors. While public enterprises in 1991 accounted for 17.3 per cent of GDP in African countries (World Bank 1995), total privatization proceeds since 1990 amounted to only 0.2 per cent of regional GDP. Another estimate suggests that public enterprises in Africa still account for over 15 per cent of GDP on average (Chong and Lopez-de-Silanes 2004). In competitive sectors, some 280 enterprises in over 30 countries that have long been earmarked for privatization are still pending for sale, and in at least half of the countries in the region, the water, fixed line telephony, railways, airlines and petroleum product distribution sectors are still fully state-owned and operated, while the same holds true in more than two-thirds of the countries for the electricity sector, in both generation and distribution (OECD 2004).¹

The challenges of utility regulation in Africa are significant given that most of the utilities in the telecommunications, electricity and water sectors are state-owned enterprises. Thus, there is conflict in the roles of government as the regulator, owner and policymaker. This conflict should have been addressed by the establishment of independent regulatory institutions that are authoritative, consistent, independent and predictable in carrying out their mandates. Political interference by government in the management of state-owned utility companies implies that the effectiveness of regulatory institutions, which are also answerable to the same government, is weakened. Regulatory agencies in Africa in the three mentioned sectors are still grappling with challenges in establishing their effectiveness and relevance to their economies.

Best Practice Regulation

Best practice regulatory principles, processes and organization have been established by more mature regulators in developed countries such as in Australia. Best practice principles include communication, consultation, consistency, predictability, flexibility, independence, effectiveness, efficiency and accountability. Such measures of best practice are used to gauge the effectiveness of regulatory regimes.

Regulation and the MDGs

There are two Millennium Development Goals (MDGs) and targets, which are relevant to the regulation of public utilities in the telecommunications and water and sanitation sectors. The goals and targets are as follows:

MDG 7: Ensure Environment Sustainability

Target Halve by 2015, the proportion of the people without sustainable access to safe drinking water and basic sanitation.

MDG 8: Develop a Global Partnership for Development

Target: In Cooperation with the private sector, make available the benefits of new technologies especially information and communications.

¹ Sunita Kikeri and Aishetu Kolo, Privatization: Recent Trends and Developments, World Bank, September 2005.

The targets under the two MDGs above pertain to the development of infrastructure in the water and sanitation and information, communication and technology sectors. The key objective of regulation, particularly in developing countries, is to create the environment that facilitates investment in the regulated utility sectors. Thus, licensing regimes have been designed to introduce competition, particularly in mobile telecommunications, while concessions have been facilitated by the regulatory regime to attract investment in water and sanitation. Utility regulation is therefore relevant to attainment of the two above mentioned MDG goals and targets. The status of regulation in the telecommunications, electricity and water sectors are summarized below:

Telecommunications

Amongst the three regulated sectors, the telecommunications sector is the most mature, with the majority of countries in Africa having independent telecommunications regulatory bodies. At the same time, the telecommunications market has witnessed comparatively more growth in terms of private sector participation and competition, fuelled largely by the impressive growth of mobile telecommunications. However, despite the relatively impressive performance of the sector, certain regulatory challenges, which also inhibit the other sectors of water and electricity, are prevalent. These challenges include the independence of the regulatory body, the lack of regulatory skills and capacity, regulatory powers and due process, among others.

Electricity

The electricity market has also seen some developments in terms of private sector participation, particularly in the generation section, with the advent of Independent Power Producers (IPPs). Close to a half of African countries have established regulatory agencies for the electricity sector. However, independent regulation is more common in Anglophone Africa than in Francophone Africa. Regulators in Ghana, Kenya, Lesotho, Malawi, Namibia, South Africa, Uganda and Zambia have been established outside government Ministries and are, in general, able to make decisions without prior Ministerial approval. This is not always the case in French-speaking countries. In Gabon, regulation is undertaken by a dedicated Ministerial Unit, i.e. it is generally not credited with having a separate or independent regulator but, in practice, it may not be significantly different from some of the separate regulators, such as Mali, which do not have final tariff decision-making powers.

Nearly half of African electricity regulators oversee mainly state-owned utilities. These include Ethiopia, Ghana, Guinea, Kenya, Namibia, Senegal, South Africa, and Zambia. Most of the regulators currently being established will also oversee mainly state-owned electricity utilities. Regulation in this context can only be effective if government's role as a shareholder of the power utility is separated from its role as regulator, and if the utility operates under the discipline of commercial principles. Thus the regulatory challenges confronting the electricity market are more significant compared to those facing the telecommunications market, which has seen more competition and private sector participation.

Despite the enormous challenges faced by African regulators, there is still need for more regulation to facilitate further reform of state-owned utilities in the telecommunications, electricity and water sectors. Even where there is competition, such as in the mobile telecommunications market, regulation is still required in tandem with competition policies and laws to ensure that operators do not behave anti-competitively, through discriminatory terms and conditions of interconnection and access to their networks.

Regional Coordination in Regulation

Given the weak legal and regulatory frameworks of many African countries, regional cooperation and coordination of regulatory policies would assist in alleviating some of the challenges being faced by the regulators. The development of regulatory policy harmonization guidelines, for instance, could address the problem of regulatory policy development capacity at the national level.

In terms of regional cooperation in regulation, Eastern and Southern Africa are more advanced, given the number of regional regulatory associations and assemblies in those areas. Such bodies have helped to develop and adopt harmonized regulatory materials such as Interconnection Guidelines, Tariff Guidelines and Model Telecom Policies, among others.

Institutional and Human Capacity in Regulation

Regulation as an activity is highly knowledge and information intensive, thereby requiring highly skilled and competent human resource capital. Various capacity-building activities have been identified in the report. These include study tours, training courses, custom-designed training programmes, on-the-job training, in-house advisors, and institutions of higher learning.

Way Forward

The various challenges facing African regulators, within the context of varying degrees of national governance structures, call for innovative ways of ensuring that regulatory regimes are successful in filling the huge investment gaps in the telecommunications, electricity and water sectors. Some of the mechanisms discussed in the report include regulatory contracts, outsourcing regulatory functions and advisory regulators and/or expert panels. There is also the need to further build regulatory capacity and enhance regional harmonization of regulatory policy.

Introduction

ECA has made tremendous efforts in the past decade in promoting “good economic and corporate governance” in Africa. In this regard, it has published several documents and reports aimed at enhancing the availability and diversity of literature on the subject. It is in this light that this working paper is being prepared to explore the following issues within the African regulatory context:

- What would the role of regulation be under the new economic realities brought about by the changes of ownership of service-providing institutions for electricity, water, telecommunications, roads, etc.?
- How does good regulatory governance contribute to social and economic growth and development?
- Is the free market a substitute for regulation?
- How does regulation ensure that equity and fairness are secured against the strong pressure for policy reforms aimed at economic growth and efficiency?
- Does Africa need more or less regulation?

The paper takes into account the current state of general regulation and regulatory reforms in Africa and the particular status in thirteen countries, under the project for producing the second African Governance Report (AGR-II). These countries are Algeria, Angola, Cape Verde, Central African Republic, Congo (Brazzaville), Djibouti, Guinea (Conakry), Madagascar, Mauritania, Seychelles, Sierra Leone, Togo and Tunisia. In addition, the objectives of the paper are:

- To draw lessons learnt from African regulatory institutions; identifying the role in reforming state-owned service providers and integrating the key lessons learned to the activities of the Division’s ongoing and future governance programmes; and
- To build the lessons learnt into the Division’s institutional memory, so that they are easily available to officers at ECA involved in all aspects of governance programmes.

The examples and case studies come mainly from the telecommunications, electricity and, to a limited extent, the water sectors. These three sectors have undergone the most reforms in Africa over the last decade and the body of knowledge on regulation is largely focused on them.

Genesis of privatization and regulation in Africa

Poor service provision by loss-making public enterprises first led to reforms short of private sector involvement. These produced no, modest, or unsustainable improvements. Financial losses mounted, leading to further deterioration in service quantity and quality and increasing the burdens on the government budget. International Monetary Fund (IMF) involvement and surveillance led to a choking off of direct budgetary financing of state operated enterprises (SOEs). In most cases, the banking system, initially state-owned or dominated, then took on the task of financing the enterprises. Debts were incurred but not serviced. The banks rapidly accumulated a non-performing portfolio and severe solvency problems. Financing/fiscal

problems grew acute. These, and not efficiency concerns *per se*, became the principal driver of SOE reform. Typically, it was the IMF that highlighted the issue and insisted upon efforts to resolve it. In response, private sector management, financing & ownership was proposed. The World Bank then became more directly involved, in terms of reform/privatization design, and assistance in implementation. In many, probably most, African countries, the principal motivation for privatization has been to placate the international financial institutions (IFIs).²

However, it soon became obvious that if regulation of utility services continued to be undertaken by the Ministry with responsibility for the relevant sector(s), private entrepreneurs would continue to consider that circumstance to be a disincentive to investment. The perceived disadvantages of government regulation are many, but include:

- Inconsistent pricing policies, often influenced by political objectives;
- Short-term focus, normally not extending beyond the next election;
- Unpredictability, especially after regime changes;
- Inconsistent pricing policies (prices may not reflect costs);
- Lack of transparency in decision-making;
- Limited accountability to stakeholders;
- Budgetary constraints affecting the quality of decisions; and
- Bureaucracy.

A number of multilateral and bilateral funding agencies began to encourage their client countries to establish independent agencies to regulate the provision of utility services and thereby create an atmosphere more conducive to private investment. These, and other considerations, led to a steep increase in the number of regulatory agencies worldwide in the decade of the 1990s.³

1. Recent trends in sector reforms

Reform of SOEs over the past decade in African countries were largely driven by structural adjustment programmes, which required African governments to develop privatization programmes to curtail the activities of public enterprises. SOEs were present in almost all economic and productive activities such as services and manufacturing. Most of these enterprises were already operating in competitive environments, thereby rendering the role of government in providing such services as commercial banking and operation of hotels redundant. The privatization of enterprises in commercial and competitive markets further enhanced productivity and competition in those markets.

² John Nellis, Privatization in Africa, Global Centre for Development, Working Paper Number 25, February 2003.

³ Institute for Public Private Partnerships (IP3): The Study on Private Sector Participation and Regulatory Framework for the Gambia, 2004.

Utilities in the electricity, water, telecommunications and transportations sectors on the other hand, presented unique challenges for reform given the essential nature of the services they provide and the magnitude and specificity of the investments required for their operations. Utilities such as electricity and water are characterized by both monopoly and competitive features. Electricity transmission is considered both technically and economically as a natural monopoly, given that duplicating transmission lines in a defined geographic area is physically impractical and would significantly lead to exorbitant costs for the electricity supplied to end users. However, the experience of some African countries has shown that there could be some form of competition in the generation segment, with the advent of Independent Power Producers (IPPs), which compete on the basis of the price on which they sell electricity generated to the transmission and distribution company. There could also be some extent of competition in the distribution segment of the business.

In the light of the above realities, outright privatization of a public monopoly that generates, transmits and distributes electricity will lead to the transformation of that enterprise from a public to a private monopoly. A private monopoly, while having the potential to increase efficiency, can be detrimental to the welfare of poor users of utility services, a group which is quite significant in many African countries. Therefore, most African countries have established regulatory authorities to control the activities of monopolies and facilitate competition in the utility sectors for tele communications, electricity, water and transportation.

2. Utility regulation

The mixed results emanating from the reform experience of African countries in these three sectors, call for establishment of effective regulatory frameworks to further consolidate the gains and to remedy some of the pitfalls associated with the reforms. It is important to establish the overall objectives of independent utility regulation as well as the key elements of an effective regulatory regime. Such key elements include regulatory independence vis-à-vis government-regulated industries and consumers; regulatory autonomy vis-à-vis funding, hiring practices, salary levels, and organizational structure; regulatory authority and regulatory accountability.

2.1 Objectives of utility regulation

Regulation is direct government control over specific sectors of the national economy. Governments choose to exercise such control for a variety of reasons. For instance, the pharmaceutical industry is regulated in order to protect public health; ownership of firearms is restricted in the interests of public safety; use of the electromagnetic spectrum is regulated to facilitate orderly radio communications. Regulation is most commonly imposed upon enterprises that have a monopoly on, or are dominant in, the provision of a specific good or service, with the objective of protecting consumers from the abuse of dominance by the enterprise. In a competitive market, the consumer can choose to purchase the good or service from a different provider if he/she is dissatisfied with the price or quality being offered. Consumers dependent upon monopoly providers have no such choice, and, particularly in cases where the enterprise is providing a basic good or service, need to be protected against exploitation.⁴

Until fairly recently, utility services internationally have been assumed to be natural monopolies, that is, that competition in the provision of those services was not economically feasible. Even today, although such competition has been introduced in most countries of the world, such services continue to be provided by monopolies. Some form of regulation has

⁴ Institute for Public Private Partnerships (IP3): The Study on Private Sector Participation and Regulatory Framework for the Gambia, 2004.

therefore been exercised to limit the potential of utilities to place consumers at undue disadvantage, especially in the pricing of the services. Since utility services have traditionally been provided by SOEs, the executive arm of the government exercises the functions of owner, operator and regulator. The USA is an exception to the general rule, as most utilities in that country are privately owned, as the disadvantages of service provision regulated by the political administration quickly became obvious. The history of independent utility regulation in the USA stretches over more than a hundred years.

In the latter part of the twentieth century, more and more countries began to involve private enterprises in the provision of utility services. There were several reasons for the change, two of which were particularly significant. One was the realization that private enterprise could provide these services more efficiently, that is, at lower global supply costs, for comparable standards of service. The other reason, of special importance in developing countries, was that the governments were finding it difficult to provide the financial resources necessary for investment in these services, without severe disadvantage to the social sectors, such as education and health, in which private enterprise was not as willing to invest. In addition, the operating costs often had to be subsidized as a result of inefficient operations and tariffs were kept artificially low in the mistaken belief that the poor would benefit thereby. For some governments, the revenues to be realized from the sale of utility assets were an added incentive to privatization.

2.2 Independent Regulation

Countries considering the introduction of regulation of utility services are invariably advised by the funding agents and consultants to establish “independent regulators”. There is, however, no universally accepted definition of what is meant by the term “independent” in this context, and the question “independent of whom” may therefore be legitimately asked. To some, the regulator’s independence refers to arm’s length relationships with regulated service providers.

For instance, the World Trade Organization (WTO), in its Schedule of Specific Commitments for Telecommunication Services, defines an “independent regulator” as “the regulatory body, separate from, and not accountable to any supplier of basic telecommunication services”. To many others “independence” implies primarily freedom from interference by the executive arm of the government in the conduct of regulatory affairs. Another group, primarily that formed by the providers of utility services, may be concerned that the regulator, in the hope of obtaining popular approval, may become a consumer advocate, paying undue attention to consumer demands for lower prices or unreasonably high levels of service.

A truly independent regulator will function in arms-length relationships with all stakeholders. “Arm’s length” in this context means that regulatory decisions are not influenced by special considerations (favourable or unfavourable) being given to any of the parties involved. Such decisions and any resultant actions will be taken in accordance with transparent processes and within the context of a clearly defined legal framework. It is the regulator’s responsibility to establish, to the greatest extent feasible, the proverbial level playing field in which the interests of all stakeholders are considered, and no stakeholder will receive preferential treatment or have reasonable grounds to consider itself unfairly disadvantaged.

Independence from the utility

Regulatory literature often discusses what is termed “regulatory capture”, that is, where the utilities gain undue influence over the regulators, and regulatory decisions tend to favour a specific utility or the utilities generally. Regulatory capture is indeed a danger, but if the regulator is aware of the hazard and is on guard against it, then its control becomes primarily a

question of competence and diligence. Mechanisms to ensure accountability and transparent decision-making will also serve to make regulatory capture less likely. This assumes that the regulators are not only competent but are also persons of integrity. Qualifications must always be a fundamental assumption for effective regulation.

The objectives of the service provider and those of the public interest may conflict in many areas, irrespective of whether the utility is publicly or privately owned. Potential areas of conflict include pricing, service standards and universal service. It is essential that the regulator is seen to be independent of the service provider. The arm's length relationship will prevent the regulator from accepting gifts or other favours from the regulated, even if these are not thought to convey significant financial benefit. Acceptance of favours will affect the general perception of the regulator's impartiality, even if in reality it has no bearing whatsoever on the regulatory decision-making process.

If utility services are provided by monopolies, one of the prime functions of the regulator is to prevent abuse of monopoly privileges. In a competitive environment, the regulator needs to be vigilant in preventing abuse of dominance by the incumbent and ensure fair and non-discriminatory access pricing.

Independence from the Government

Independence of the regulator from the regulated is more easily understood than independence from the political authorities. Precisely for that reason, political pressures endanger true regulatory independence much more than the undue influence of the regulated. The regulatory body is an agency of the government and to speak of such an agency as being independent of political authorities can be confusing. It may sound like an oxymoron to some. The confusion is often greater when the regulated enterprises are state-owned as the distinction between the responsibilities of the owner and operator on the one hand, and those of the regulator on the other, are frequently ill-defined.

Those departments of the government through which the day-to-day objectives of the government are achieved are generally referred to as the "executive branches". The political directorate issues instructions directly to such departments, often in great detail, as to what actions are to be taken. A regulatory agency, is not; if it is independent of the political process, part of the government's executive arm. The only government objective that the regulator is directed to achieve is independent regulation. This ought to take place within clearly defined legal and policy frameworks that render the issuance of instructions unnecessary from the political directorate to the regulator as to actions to be taken.

If regulatory decisions are subject to review or approval by the political directorate, then the regulator is not independent. In many countries, the regulator acts in an advisory role to the Minister or Cabinet. An obvious problem with this scenario is that the regulator could quickly become irrelevant and powerless if the Minister consistently ignores the advice.

The government has the authority and responsibility to establish the policies under which the various sectors of the economy are to operate, and it is the duty of the regulator to ensure that his actions comply with these policies. However, such policies must be formally announced and properly communicated. They must be written and preferably placed before the legislature. It should not be necessary for the Minister or anyone in the political directorate to make pronouncements as to what actions the regulator should take in order to conform with a government policy of which nobody outside of the political directorate had previously heard.

It is also necessary to differentiate between strategy and policy. The government will develop a strategy to achieve its policy objectives. However, the mere existence of such a strategy, even if publicly announced, will not necessarily commit the regulator to arrive at decisions that support the strategy. For instance, in order to achieve certain economic targets, the government may develop a strategy to restrain annual inflation to single-digit percentages. However, that strategy should not be a factor in the regulator's decisions on the pricing of utility services. The principles guiding these decisions should continue to be that the revenues earned from the services must cover the costs of efficiently providing them and enable the investor to obtain a reasonable return on the capital invested.

Independence from consumers

Consumers may be the most difficult stakeholders to convince of the advantages of independent regulation. Typical consumers are interested in only two aspects of utility services, the cost and the quality of the service they receive. They seldom appreciate the relationship between the two. Consumers are numerically the largest group of stakeholders, but it is a heterogeneous group whose interests are normally not coordinated, and arguments in favour of those interests not strategically organized.

The industrial and residential consumer may both agree that the costs of utility services are too high and the quality of service unsatisfactory, but they may have very different opinions as to the solutions. The home owner/occupier thinks the burden of costs should be shifted to the industrialist whose financial resources are less constrained and who, in any case, can roll utility costs into the sale price of his end product. The industrialist complains that high utility costs make his product less competitive in an increasingly global marketplace. Neither can understand why the regulator cannot see the logic of their respective positions. These are only two examples of a large number of special interest groups within the consumer category.

Because the consumer group is numerically the largest, a regulator may be seduced into gaining popular approval by adopting, consumer positions without objective analysis of the issues involved. The credibility of the regulator is critical but is not achieved merely by seeking popular support. Credibility is gained when decisions can be seen by all stakeholders to be the results of objective reasoning, even by those whose narrow interests are not served by the decisions.

The general experience internationally has been that independence from the political process is the most difficult to achieve. In dealings with the government, the regulatory agency cannot reasonably speak from a position of authority since it is from the government that it derives such authority as it has. The government can change formal policies, even legislation, to achieve its ends. In the final analysis, the regulator can only be as independent as the government wants and permits. The commitment of the government to the independence of the regulatory agency is the single most important factor in determining the ability of the agency to maintain credibility with all stakeholders.

2.3 Regulatory Autonomy

If a regulator is to be truly independent of the government's executive arm, then it also needs to be autonomous in its operations. The characteristics of autonomy cover a wide range of issues, the more important of which are:

- **Independent funding:** The regulator should be funded by some means independent of the resources of the Treasury, generally by regulatory fees paid directly to the regulator by the service providers. If the Treasury provides the funding, the regulator will likely be subject to periodic shortage of financial resources as the government's budget is put under strain. Funding from the Treasury also provides the political directorate with an opportunity to influence regulatory action by withholding funds.
- **Independence from Civil Service salary structures and hiring procedures:** Civil servants typically receive lower financial remuneration than their counterparts in the utilities, even government-owned utilities. However, the regulator needs to attract and retain staff with the same levels of competence as those of the utilities. The regulator should therefore not be hampered by civil service pay scales or hiring procedures. If that is not the case, the regulator will probably not be able to understand important issues relevant to the utility's operations, and so be subject to what is known as "regulatory capture" or a dependence on accepting the service provider's interpretation of what is in the common interest.
- **Freedom to decide on the organizational structure:** Typically, the government decides on the composition of the Board or whatever the top layer of decision makers are called. However, the Board should decide on the organizational structure below that level.
- **Freedom to hire consultants:** The staff of a regulatory agency is unlikely to be able to competently address all the complex issues with which it may be faced. The decision as to whether outside assistance is needed should be the prerogative of the Board alone.

2.4 Regulatory Authority

If the desired degree of regulatory independence is to be achieved, the regulator will need, in addition to the attributes already noted, to be vested with the authority and powers of enforcement to ensure that its instructions and decisions are not lightly disregarded. Responsible regulatory decisions are dependent on reliable information, but the service providers have no incentive to provide all the information that may be relevant to the operations of the sectors. The regulator must therefore have the authority to require submission of such information as it considers necessary for the effective discharge of its responsibilities.

An example relates to the provision of accounting information. Utility accounts are normally kept to comply with statutory requirements on the submission of financial information to government departments. The resultant statements will seldom provide the regulator with the information needed to determine the cost of providing specific services, an important factor in deciding on equitable tariffs.

One of the powers of the regulator should therefore be to instruct the utilities as to the format in which it requires accounting information to be submitted. It must also be able to instruct service providers to take such action as may be necessary to improve the efficiency of sector operations, but these instructions should be directed at results, and not consist of specific action to be taken by the management. The regulator must never micro-manage.

2.5 Regulatory Accountability

Considerations of independence, authority and accountability should not provide the regulator with an opportunity to act in an irresponsible manner. As a servant of the people, the regulator must be accountable to the people and assure them that it acts with integrity, openness and fairness, and abides within the legislative framework under which it was established. Some of the ways in which the regulator may be required to give an account of its performance are:

- Its financial accounts should be independently audited annually and submitted to the Cabinet or National Assembly;
- A report on its activities during the previous fiscal year should be prepared annually and also presented to the Cabinet or National Assembly;
- Its annual budget, including the proposed regulatory fees and salaries of members of the Board are to be submitted for approval by the Cabinet (or National Assembly) before the beginning of each fiscal year;
- Its internal policies and procedures should be open to public scrutiny;
- Written reports on its decisions, the considerations and processes by which those decisions were reached, should be published and made available to the public;
- When hearings are being held on important regulatory issues, those hearings should be open to the public;
- Information should be kept confidential from the public only if it has the potential to divert the course of justice, contains personal information which the affected parties do not wish to have disclosed, contains commercial information of a proprietary nature, or would in some way be prejudicial to the interests of one or more of the affected parties; and
- The political directorate may order an independent audit of the agency's operations at any time in order to evaluate the efficiency of its operations.

By being transparent in its operations, the regulator will enhance its credibility with all stakeholders.

2.6 Tariff Design Mechanisms and Universal Access Policies

The objective of tariff regulation is to ensure that utilities recover their efficient costs of providing service by charging cost-reflective tariffs, while ensuring that consumers of all socioeconomic characteristics can afford the services being provided by the utilities. Prices affect wealth distribution, resource allocation and resource utilization, and also impose administrative costs on society. These tariff characteristics can be converted into a set of operational criteria for the purpose of evaluating prospective tariff systems as follows:

- ***Allocational efficiency:*** goods and services should be produced when the costs of production are less than the value to consumers, and they should be delivered to those consumers that value them most;

- **Financial solvency:** companies should, when operated prudently, be compensated for the full costs of service provision, including the cost of capital;
- **Dynamic efficiency:** incentives for ongoing technological innovation and cost minimization should be consistently maintained;
- **Equity:** rates should be supportive of fundamental social objectives; and
- **Administrative efficiency:** the tariff system should be implemented, including all data collection and computation, at a reasonable cost.

These goals are inherently in conflict. For example, while the first principle (allocational efficiency) requires that each consumer be confronted with prices that reflect all costs - and only those costs - incurred in the provision of service to that customer, there are two qualifications to this standard. First, taken to the extreme, allocational efficiency requires that each individual customer be charged a price for each element of service that precisely compensates for the associated costs. It is not possible to allocate costs in sufficient detail. The goal of allocational efficiency must be tempered by administrative practicality. Each customer is not treated individually, but rather is grouped within a class of customers that can be expected to display similar demand patterns with respect to the primary drivers of cost. Costs are not allocated precisely either across or within the customer classes, but rather are approximated based on the information available within the available accounting system. Conceptual goals for tariff design must be tempered by the practical capabilities of a utility's information and accounting systems.

The second qualification to the goal of cost-reflective tariffs is driven by concerns that are less easily measured and quantified. Economics, like any other social science, offers prescriptions and recommendations that are rooted in a particular system of values and a specific understanding of what people want and how they behave. Many commentators have remarked that economists are insufficiently sensitive to the complexities and inherent limitations characterizing the policy-making process within a political environment. This is a legitimate concern. While there is a strong preference for utility prices to reflect costs as closely as possible, it is also true that governments often have legitimate reasons to deviate from this standard. The purpose of the equity criterion is to evaluate rate design based on the extent to which it is supportive of broad social goals. These goals almost always include a commitment to providing financial subsidization to those most in need.

For example, because residential customers generally maintain patterns of consumption that provide for lower load factors than their commercial and industrial counterparts, the costs of serving them are usually higher. In addition, because service to rural customers generally requires the construction and operation of long networks, providing service to them is particularly costly. The efficiency implication is that residential customers, particularly those located in remote rural areas, should be charged more than commercial and industrial users. Yet residential customers are generally considered to be in greater financial need than businesses. Furthermore, because rural customers in particular tend to be among the poorest in the country, equity considerations support lower prices for these customers. It is not unusual for equity imperatives of rate design to be in direct conflict with efficiency requirements.

It is impossible for a consultant to establish any objective standard for balancing the multiple tradeoffs supporting tariff design. The most that can be hoped for is that policymakers retain a good understanding of the criteria and the way each is impacted by different pricing techniques. The goal for every regulator should be to implement a tariff methodology in a

manner that achieves the appropriate balance of these conflicting objectives within its specific economic and social context.

The general goal is to present as many customers as possible with pricing structures that reflect, as closely as possible, the costs they impose on the system. There is an infinite variety of possible forms. Some of the elements most typically considered for incorporation within utility rate structures are as follows:

- **Connection charges** - These are often accounted for separately from general use of system charges. Some tariff designs include distinct charges for connection to, as opposed to ongoing use of, the system. This is most common for electricity transmission networks. The rationale behind the connection charge is driven by the fundamental principle of charging customers, to the greatest extent possible, in accordance with the costs they impose on the system. Connections are often constructed to serve a small number of customers. So rather than spread these costs generally across the entire customer base, a distinct connection charge allows for a more focused targeting of the costs. Thus, on purely economic grounds, a connection charge is advisable. There are sometimes policy considerations as well. When new connections are being established in relatively poor – and perhaps rural - areas, governments and regulators will sometimes prefer to spread the connection costs across the full customer base. This establishes a form of subsidization for system expansion;
- **Two- or three- part design:** Tariffs are sometimes organized with distinct charges for customer, demand and commodity costs. Some utilities charge on the basis of a one-part tariff with only a commodity charge. This is essentially the universal standard for telecom utilities. In some cases, particularly within the electricity and water sectors, utilities have entirely removed the commodity component of the tariff and charge solely on the basis of customer service and maximum demand;
- **Inclining Block structure:** Price per unit declines as volumes consumed increase. This provides an indirect method of reflecting the fact that high-volume users typically impose a lower cost per unit;
- **Seasonal differentiation:** Systems (electricity and/or water) with large differences in demand across seasons often charge different rates during different months;
- **Time differentiation:** All systems serve significantly different levels of demand throughout each day. While there are great efficiency advantages to varying prices throughout the day in proportion to demand intensity, this is an area where administrative costs are a concern. Meters that can measure usage within specified time blocks may be significantly more expensive than those that measure only aggregate use;
- **Interruptible rates:** In exchange for reduced rate, (electricity) customers provide the utility the right to discontinue service on short notice; and
- **Fixed charge:** Employed for customers without meters.

Some options to address affordability include prepaid schemes, limited minutes, call barring, low user scheme and increasing frequency of billing.

Prepaid schemes

Prepaid mobile service is an example of a situation where an innovative payment scheme made service affordable for the poor. The poor in many countries could not afford monthly fees for mobile service, could not establish credit for post-paid pricing schemes, and did not have mailing addresses where they could receive their bills. Operators developed prepaid cards, which have higher usage fees than post-paid service, but that have nevertheless made service affordable for many poor customers. The ease of collecting from poor customers using prepaid cards actually lowered the cost of serving the poor, which made serving the poor profitable for operators. In certain situations, it may also be possible to give customers a menu of options that provide various combinations of price and quality.

There are situations, however, where price level is a hurdle because overall costs of providing any level of service are high relative to what customers can afford. Consider, for example, the case of electricity distribution. The fixed costs that are currently inherent in the provision of the electricity grid are sufficiently high to make extension of the grid into poor, rural areas commercially infeasible. As a result, extensions of the grid to these people must be subsidized if the grid is to be commercially viable. In these situations, it may be necessary to provide subsidies to ensure affordable prices for the poor.

Call barring

This entails blocking calls that attract high tariffs from reaching a consumer. However, he/she should have the ability to use prepaid cards to such calls.

Limited minutes

A consumer can be allocated a fixed amount of calling minutes per month based on what he/she can afford.

Low user scheme

For low use of telephone service, the fixed monthly charge can be reduced, while the usage per unit can be increased above the standard usage charge.

Increasing the frequency of billing

Increasing billing frequency could be an effective way of allowing a poor consumer to manage his/her consumption, particularly if his/her income is not generated on a monthly basis.

There is growing consensus, however, that subsidies should be avoided if possible. Research has shown that the poor rarely benefit from broadly based subsidy schemes. For example, subsidies directed at public water companies have often benefited the middle class rather than the poor, who often receive their water from sources other than the formal water utility. Some regulators have attempted to solve this problem by developing targeted, direct subsidies to customers, which have the advantages of being transparent and explicit, and minimize distortions in the behaviour of water utilities and their customers. The main drawbacks are high administrative costs and the difficulty of designing and applying suitable eligibility criteria.

Development of subsidies for service to the poor involves determining the amount of subsidy and funding the subsidy. Recently, countries have had success with auctions to determine the amount of subsidy. One of the first successful examples of the use of auctions was with Chile, which auctioned subsidies for telecommunications projects in rural areas. Funding of below-cost prices can be done through concession bidding and external subsidies. Concession and licensing fees can provide funding for subsidies, or a requirement for internal funding of subsidized service can be built into the concession contract. In such situations, the operator either funds the subsidy by embedding cross subsidies in his price structure or he funds the subsidy by lowering what he is willing to pay for the concession contract. Sometimes, regulators collect subsidy funds through percentage fees against operator turnover or revenue.

Experience has shown that subsidy schemes designed to benefit the poor can continue beyond their usefulness, perhaps because policymakers neglect to re-evaluate the schemes, the needs of the poor change, or non-poor stakeholders benefit from the subsidy process and so advocate its continuation. These possibilities point to the need to evaluate subsidy schemes on a regular basis. Evaluation criteria include how well the poor are reached, the share of the subsidy that goes to the poor, the predictability of the benefit for the poor, the extent and significance of unintended side effects, and administrative cost and difficulty.⁵

2.7 Regulatory Best Practices⁶

Best practice principles

Nine principles of best practice regulation have been identified:

- Communication
- Consultation
- Consistency
- Predictability
- Flexibility
- Independence
- Effectiveness and efficiency
- Accountability

Communication

Effective communication assists all stakeholders to understand regulatory initiatives and needs. Effective communication is both educative and informative, and can help to build commitment to regulatory initiatives through better understanding of the objectives and rationales. The regulator should always provide an explanation to enable stakeholders to understand the background and rationale for a decision. The aim is to assist participants to understand specific issues and inform them of policy objectives and requirements. This may lead to effective self regulation. In addressing the principle of communication, regulators should establish processes that provide relevant and comprehensive information that is also accessible, timely and inclusive of all stakeholders.

⁵ Mark A. Jamison, Sanford V. Berg, Farid Gasmi and Jose I. Tavera, Regulation Body of Knowledge; developed for the World Bank.

⁶ Australian Competition and Consumer Commission, 1999.

Relevant and comprehensive communication requires the regulator to provide information that addresses the key issues of importance to the stakeholder, in particular the effect of the regulation on the stakeholder.

Accessible communication means providing information to the stakeholder that is in an easily digestible format.

Timely communication involves the provision of communication before major decisions are implemented, and in a way that enhances stakeholder involvement in and access to processes, and ensures that there is adequate time to hear and consider opinions and needs.

Inclusive communication requires that all affected stakeholders receive information on regulator decisions, rather than consultation taking place only with vocal or powerful sectional interests who could unduly influence these decisions. Specifically, there is a need to include consumers in the communication processes.

Consultation

Effective and early consultation between regulators, customers and utilities is an essential component for ensuring that appropriate regulatory systems are established. Consultation assists regulators to understand the implications of their regulations for industry participants, and enables stakeholders to discuss the impact of the regulation and suggest alternatives and improvements. The canvassing of all the possible alternatives is not the only outcome of consultation. It also provides the basis to ensure that the quality of the regulation is maximized.

Consultation helps regulators to be realistic in terms of the timing of the introduction of new regulations. For example, where stakeholders will not be able to change their practices immediately to comply with the new regulation, consultation should take place well in advance of the making of regulatory changes. A spirit of openness between the regulator and industry stakeholders can help to address the issues of information imbalances between the stakeholder and the regulator. Proper consultation engenders trust and helps to avoid an adversarial relationship in which the exchange of information is restricted. Early consultation also helps to build commitment among stakeholders to the regulatory structure. Comments made by respondents reinforce the importance of communication in winning support for regulatory initiatives.

Once the government has announced its policy objectives, the regulator should consult with industry to ascertain how the objectives can be best met at minimum cost. Timely consultation will ensure that regulations are as widely accepted as possible, which will reduce the likelihood of litigation. Without consultation an 'us and them' culture develops, which is counter productive to ensuring good service delivery in the industry and which is the aim of both regulators and provider utilities.

Consistency

Consistency in the treatment of participants across service sectors, over time and across jurisdictions, was highlighted as a key principle for building confidence in the regulatory regime. This principle is linked to the provision of consistent and fair rules that do not adversely affect the business performance of a specific participant.

Predictability

The principle of predictability in regulation is an essential requirement for utilities to be able to plan confidently for the future and be assured that their investments will not be generally threatened by unexpected changes in the regulatory environment. The principle is particularly important in the utility sector, which is characterized by major infrastructure works with long investment time horizons. Regulators need to appreciate the long-term nature of assets and related investment decisions in the utility sector. The implementation schedule of regulations that will affect the cost or price structure of market participants must therefore be taken into account. Similarly, there should be predictability in respect to government policies on externalities that are likely to have an impact on utility pricing and investment, such as environment and technical aspects, and safety and social welfare policies. In some circumstances, predictability is not possible, that is, where there is economic instability or rapid technological or political change, but these circumstances should, as far as possible, be made exceptions. The rule to which regulators should adhere is to strive for a consistent and predictable regulatory environment. Key mechanisms for providing predictability in regulation include the establishment of decision-making criteria that are well defined and the provision of clear timetables for the review of standards and regulations.

Flexibility

Flexibility involves the use of a mix of regulatory tools and the ability to evolve and amend the regulatory approach over time as the external environment changes. This assumes that the organization has knowledge of, keeps up to date with, and is open to alternative regulatory approaches. At times, courage may be required to implement new initiatives that can become a part of the culture within the public sector, rather than to recycle approaches. Flexibility includes taking the condition of the local market into account when considering the design of regulation. These local conditions include the extent of infrastructure, the number of existing participants in the market and the existence of long-term contractual obligations. Key mechanisms for providing flexibility in regulation include being open to alternative regulatory tools and recognizing that conditions change over time.

Independence

Regulatory decisions should be free from undue influences that could compromise regulatory outcomes. The principle of independence is a necessary element in providing stakeholders with confidence in the regulatory system, and is linked to achieving the principles of consistency and predictability. Independence also has implications for accountability and facilitates transparency in processes. A confident, independent regulator will not seek to hide the processes used to reach decisions. Independence, when openly exercised, builds trust and confidence in the regulator. This requires that regulators have the expertise necessary to make judgments without undue influence from, or reliance on, market participants.

Effectiveness and efficiency

Best practice regulation should include an assessment of the cost effectiveness of the proposed regulation, and an assessment of regulatory alternatives. Suitable measurements should be established to monitor the benefits established through the regulatory controls, and provide an assessment of the costs incurred by the regulatory body and utility. Efficiency requires a number of elements as shown below:

- **Information requirements.** Regulatory bodies must have access to information that relates to the operations of the service provider. In order to achieve efficiency, it is important that the information required is limited to that required for carrying out their functions. There needs to be a balance between the disclosure of information required for regulation and the need for maintenance of confidentiality of commercial information. The regulator should therefore determine the minimum levels of information needed from stakeholders to support effective reporting and the minimum number of authorities for whom reports are necessary to effectively meet obligations to the Government and the community for disclosure and compliance.
- **Time taken to make decisions.** Decision-making processes should be well defined and structured to eliminate unnecessary delays.
- **Staff with appropriate levels of technical knowledge.** There needs to be a stock of technical knowledge within the regulatory body to ensure that informed decisions can be made. The alternative is the dominance, through superior knowledge, by the organizations which are subject to regulation. In these circumstances, the regulator will tend to ask for higher volumes of information than might otherwise be requested with a higher knowledge and experience base. This is neither efficient nor desirable for all parties. Regulatory authorities should therefore invest in attracting, training and keeping good staff.
- **Processes** should minimize waste and duplication and operate quickly and easily for all parties.
- **Accountability.** This requires that regulators take responsibility for their regulatory actions. Regulators have to establish clearly defined decision-making processes and provide reasons for decisions. Supporting the decision-making processes should be effective appeal mechanisms and adherence to principles of natural justice and procedural fairness. Respondents suggested that the performance of the regulator should be regularly reviewed and that there be an appeal mechanism in relation to regulatory decisions.

Such a review of the regulator should be independent and assessed against specific objectives. The aim is to maintain integrity in the decision-making process and to ensure that the organization is adhering to best practices in terms of efficiency and effectiveness. There should be periodic reviews of how regulation is administered and whether the existing bureaucratic arrangements are still compatible with achieving the regulatory goals. Inevitably, there has to be discretion in the decision-making of the regulatory organization, but this should be balanced with the accountability required. There should therefore be an appeal mechanism as a part of best practice regulation. Accountability also requires that stakeholders be able to deal with the appropriate officer in the regulatory agency that has the decision-making power. As explained by one respondent:

“Being able to deal with the right person at the right time and as few people, departments and agencies as possible, is imperative to utilities and should lead to a cost-effective industry as a whole”.

- **Transparency**

Transparency requires regulators to be open with stakeholders about their objectives, processes, data and decisions. Regulators should establish visible decision-making processes that are fair to all parties and provide rationales for decisions. Such openness can assist in gaining stakeholders' confidence and acceptance of the regulator's decisions. There are circumstances in which it is impossible to provide information by reason of its confidentiality. The rules about treatment of information, including rules about what information will be regarded as confidential, or to which access will be restricted for any reason, should be identified early in the decision-making process and explained to stakeholders.

Best practice regulation processes

It is important for regulators to make the above principles a part of their business cultures. Processes must be put in place to ensure that stakeholders understand the basis on which decisions have been made, the nature of the information used to come to a decision and the type of analysis that has gone into the decision. The regulator should willingly subject itself to scrutiny, and accept that it will need to justify that the decisions it makes have been in the best interests of the community as a whole.

If stakeholders trust the integrity of the decision-making process, and the decisions which result from that process, then acceptance of that decision will increase. This involves the making of decisions which are based on well-defined processes and rigorous analysis. Trust in the integrity of the processes will result in fewer appeals, greater effectiveness and a less adversarial climate for regulation. An important threshold question for regulators is whether regulation is required at all or if the problem to be regulated can be best handled by the market, by some form of self-regulatory mechanism, or by some other alternatives to regulation. This is a critical issue.

The best practice regulation organization

Best practice also relates to the role and structure of the regulatory organization. Being a best practice regulator not only requires the appropriate processes and principles to be in place but also the resources and structure for the organization to fulfil its role. The following issues have been raised by respondents as relevant issues for consideration in developing a best practice utility regulator:

- **Staffing and knowledge base**

Regulatory bodies must have sufficient knowledge of the industry to be able to make independent judgments. Market participants will tailor information to promote their own self interest. Economic regulators need:

- Economic skills and access to specialist skills;
- General industry knowledge;
- Detailed knowledge of the range of regulatory instruments available; and
- Quantitative and analytical skills to carry out the cost-benefit analyses.

Technical regulations (e.g. Safety and Technical Standards for Networks and Installations) need:

- Industry knowledge; and
- Technical expertise (for example engineering-based asset management, reliability, quality and security of supply from networks).

Without sufficient skills and knowledge the regulator is at risk of being dominated by industry players who have far superior levels of knowledge and information. In addition, organizations with low levels of industry knowledge and technical skills will tend to ask for larger amounts of information than would be required if there were higher levels of expertise. This adds costs, reduces certainty, trust and confidence in reliability and consistency, and increases the risk of regulatory failure;

- **The need for a whole -of-government approach**

There is a common argument among stakeholders that it is inefficient to have to deal with the various organizations that make up the regulatory jigsaw. This suggests the need for a concerted whole -of-government approach to regulation. A small number of regulatory bodies, consistent in their approaches, is desirable. The test for the adequacy of the regulatory regime is the degree to which it imposes costs, delivers benefits and provides flexibility to reflect regional needs while at the same time providing consistent regulation nationally;

- **Clarity of roles and avoidance of conflicts of interest**

There is need for the separation of policy-making (i.e. the organization that advises the Government on the rules to be adopted in the regulatory framework) should be separated from the regulatory body which administers the rules. In other words, the organization that makes the laws should not enforce them. Ideally, organizations should be structured to avoid such conflicts of interest. The common regulatory model supports separation of the role of the policy/regulation **maker** and policy/regulation **implementer**. For example, the Australian Competition and Consumer Commission implements regulations that have been established elsewhere in the Government. In the UK water industry, there is a separation between the standard setters, the quality regulators and the economic regulators (pricing)/customer champions (customer service).

3. Status of Regulation in Africa

Regulatory Independence

Regulatory independence is imperative for the development of the telecoms sector. Too much interference from national governments is dangerous. Short-run ambitions may get in the way of governments carrying out successful regulatory policies. The results of too much government interference can include :

- Short-term populist agendas such as criticizing tariff differences between prepaid and contract mobile calls;
- The imposition of excessive costs on the mobile sector, for example, through taxation or sudden imposition of charges (e.g. for number ranges); and

- Mishandling of the privatization process for short-term political gain or revenue maximization.

Telecommunications investment horizons extend well beyond the typical time-frame for political decision-making. Regulatory independence provides a degree of immunity to short-term political priorities that undermine investor confidence. Fully independent bodies should be tasked with regulating the sector, with a view to providing a climate in which telecoms can thrive and contribute to the development of the country. Independence includes both statutory independence and financial independence from governments. Key staff members should not be appointed by the government; otherwise interference will still be possible.

In addition to independence from government, it is important that the regulator adopts an unbiased approach to different technologies. This may be a problem in some African countries since both the regulator and the fixed incumbent often emerge from the original Ministry responsible for telecommunications, and in some cases, there remains a tendency to view the sector from a fixed-technology mindset.

Appropriate Regulatory Skills and Capacity

The telecom industry is extremely complex both in terms of technology and the nature of the market. The analysis and regulation of the sector requires a combination of skills including economics, engineering and legal skills. The convergence of technologies, markets and services across telecommunications, information technology (IT) and internet places an additional demand on skills.

The need for engineering skills is obvious and regulators in sub-Saharan Africa (SSA) do typically hire a number of engineers, often in leadership positions (the head of the regulatory body often has an engineering background). Regulators also tend to be relatively well staffed in terms of legal expertise. However, economics expertise is often lacking and, in a number of SSA countries, the regulator does not employ any economist. This represents a fundamental weakness in these bodies, especially with respect to assessment of alternative regulatory strategies.

Given that most regulatory authorities in Africa are relatively new, one of the fundamental challenges facing these bodies has been the development of expertise and capacity in this relatively new sector. This has impinged on the effectiveness of regulatory regimes in Africa.

Regulatory powers

Even a fully independent regulator operating with well-designed regulatory policies will not be effective unless it has the power to enforce regulation. The regulatory regime must afford the authority specific powers. These powers should include the right to impose financial penalties, the right to require changes in conduct (e.g. pricing) and the power to revoke licences where appropriate. It is important that the institutional framework is clear on the process of enforcement of regulations and the right and ability of operators to appeal.

Examples:

Namibia: “The regulator only manages frequency and is not empowered”

Democratic Republic of Congo: “The regulator is not very empowered. For example, one operator was involved in a large law suit for infringing on the exclusivity gateway rights of a competitor. The regulator tried to intervene but the competitor ignored it and carried on with the case”.

Due process

Regulation cannot be effective if it is designed without full consideration of its implications for the industry players and the market. Changing technological and market trends must also be considered. Effective and appropriate regulation requires a due process that includes the following:

- Market analysis (to ensure regulations are appropriate and designed to achieve objectives);
- Consultation with all interested stakeholders (to ensure that the right issues are addressed, that industry expertise within operators is taken on board, and that regulation responds to the concerns of the various players in the industry);
- Statements of policy (to ensure that operators do not waste valuable resources due to lack of clarity about the direction of policy); and
- Timely responses to correspondence (to ensure issues are dealt with efficiently)

Example:

Kenya: “Insufficient consultation is one of the major problems with the regulatory regimes”.

We now look at an assessment of the telecommunications regulatory regimes in some individual African countries.⁷

Table 3 below is a summary of the status of telecommunications regulation in the thirteen countries under the AGR-II project:

⁷ African Regulatory Index Reports, African Internet Service Provider’s Association (AfriSPA).

Table 3: Status of Selected Regulatory Authorities in Africa

Country	Type of Regulator and Year of Establishment	Is the Authority Autonomous?	Who Approve its Budget?	Status of Fixed Line Operator(s)
Algeria	Postal and Telecoms (ARPT) - 2000	Yes	Council	Algerie Telecom – State-owned
Angola	Communications (INACOM) - 1999	No	Finance Ministry	Angola Telecom – State-owned Mercury – Partly Privatized Mundo Startel – Fully Privatized Wezacom – Fully Privatized
Cape Verde	Telecoms and Postal (ICTI) - 2004	Yes	Government	CV Telecom – Partly Privatized
Central African Rep	Telecoms (ART)	N/A ⁸	N/A	Socatel – Partly Privatized
Congo (Brazzaville)	Telecoms and Postal	N/A	N/A	ONPT – State-owned
Djibouti	Telecoms and Postal	N/A	N/A	OPT – State-owned
Guinea (Conakry)	Telecommunications and Postal - 1992	No	The National Assembly	Sotelgui – Partly Privatized
Madagascar	Telecoms – 1997	Yes	Finance Ministry	Telecom Malagasy – Partly Privatized
Mauritania	Telecoms, Postal, Power and Water - 1999	Yes	National Regulatory Council	Mauritel S.A – Partly Privatized
Seychelles	N/A	N/A	N/A	N/A
Sierra Leone	Ministry	N/A	N/A	Sierratel- State-owned
Togo	Telecoms and Postal – 1998	Yes	N/A	Togo Telecom – State-owned
Tunisia	N/A	N/A	N/A	N/A

Source: ITU World Telecommunication Regulatory Database

4. Key regulatory questions

4.1 Is the free market a substitute for regulation?

In a free competitive market, the forces of demand and supply determine the price and quality of a good or service. In the market for shoes for example, various sellers offer different shoes differentiated by style, brand and price. In such a market, the different sellers compete to attract consumers to their brand of shoes. In this market, regulation is not required as it would only serve to distort the efficient allocation of resources. In network industries such as telecommunications, monopoly service providers are regulated to ensure that the tariffs they charge are not exorbitant and the quality of their services are not poor. However, in a competitive telecommunications market, where there are three mobile operators for instance, the scope for regulation would lessen as the operators compete on the basis of price and quality of service. However, regulation would still be required given that all the operators in the market need to interconnect with each other to enable their customers call other subscribers on other networks.

Thus in a competitive market for simple goods, a free market can be regarded as a substitute for regulation. However, in the network industries of telecommunications and electricity provision, even where there is some competition regulation will be required to ensure that various service providers interconnect with each other. Regulation in this case should be seen

⁸ No information is available from source.

to serve as a facilitator or proxy for competition rather than an inhibitor. Therefore, the place of regulation in a free market is not only desirable, but is also a prerequisite if there is to be any sustainable development of the utility sectors.

4.2 How does regulation ensure equity and fairness against the strong pressure for policy reforms aimed at economic growth and efficiency?

Following the reform of telecommunications and electricity industries in Africa, investments in African countries were mainly concentrated in the more commercially attractive urban areas where investors were assured of a return on their investments, to the detriment of poor rural communities. Reform ensured that privatized utilities were more productive as the regulator allowed them to recover their efficient cost of production by charging cost-reflective tariffs.

Thus, a consequence of the free market and liberalization, while leading to an expansion of utility services, has led to lower service, penetration in the rural areas. To remedy the situation, some regulators in Africa such as in Uganda, South Africa and more recently Nigeria have established and administer universal access funds to facilitate infrastructure development in rural communities. Such universal access funds are targeted subsidies for the poor who cannot afford the services being offered by the utilities at market-based rates.

4.3 Does Africa need more or less regulation?

Regulation in its generic form means any rules and laws imposed by government on business to control their activities. Such regulations include requirements pertaining to business registration, licensing, municipal rates and taxes and environmental impact assessments. The objective of imposing regulations is to mitigate the externalities emanating from the activities of businesses. Environmental regulations should ensure that commercial activities do not result in the pollution of air and water. While such regulations are essential, they should not be too onerous as to discourage investors from entering a market. Licence fees for the operations of telecommunications services must not be exorbitant to the extent that it serves as a disincentive for investment or lead to expensive telecommunications services.

Regulation in Africa has put the governance structures inherent in the various countries to the test. Some of the challenges that have been faced by regulators in Africa include the following:

- Political expediency and limits of independence;
- Lack of transparency\participation and accountability;
- Institutional fragility; and
- Lack of capacity.

Such challenges have inhibited the effectiveness of the regulatory regimes to sustain some of the infrastructure reform that were started. Despite extensive liberalization of such markets as the mobile telecommunications market and access to telecommunications services, and despite the phenomenal increase registered, the level of increase is still low compared to other parts of the developing world. Thus, an effective regulatory framework is required to facilitate competition and expansion in access to infrastructure services such as water, telecommunications

and electricity, particularly to the poorer rural communities. Africa needs more of good regulation and less of bad regulations that sanction exorbitant licences fees and unreasonable business registration requirements that discourage investments in the infrastructure utilities sector.

5. Regional Coordination in Regulation

The African Forum for Utility Regulators (AFUR) identified the development and promotion of a common framework for utility regulation in Africa as one of the organization's key strategic initiatives and commissioned the preparation of a Position Paper on the subject with assistance from Public Private Infrastructure Advisory Facility (PPIAF) through the World Bank. At their first Annual General Assembly (AGA), held in Yaoundé, Cameroon 11 – 13 November 2003, AFUR officially adopted “A Framework for Utility Regulation in Africa”. The AFUR Framework represents a recommended high-level set of principles and approaches to be applied as a guide by African utility regulators, as well as by governments when considering the establishment of new regulators.

The Framework builds on previous work undertaken by AFUR, most importantly a comprehensive 2002 survey of 27 African utility regulators on regulatory governance. It also takes its cue from a comprehensive body of international experience in terms of best practise utility regulation, adapted as appropriate to meet African prerogatives and priorities in terms of regulation. The Regional Electricity Regulators Association of South Africa (RERA) adopted the AFUR Framework on 27 Oct 2005. The framework identifies the following high-level regulatory principles:

- Minimum regulation (to achieve regulatory objectives);
- Transparent decision-making and due process;
- Independent/autonomous regulation, where possible;
- Accountability towards government, investors and end-users;
- Non-discrimination when not in conflict with policy prerogatives;
- Investor protection against physical and regulatory expropriation;
and
- Promotion of competition by limiting anti-competitive behaviour.

The framework is being used to focus RERA initiatives and activities vis-à-vis member regulators, future regulator members, host governments and appropriate national, regional and international forums. RERA members are expected to act as ‘ambassadors’ to promote the AFUR Framework principles. Consideration will be given to establishing a ‘peer review’ mechanism for assessment of progress being made towards the adoption of the principles. RERA’s adoption of the AFUR Framework is a clear manifestation of its commitment to promoting sound and transparent principles and approaches to electricity regulation in the region.

The separation of the Posts and Telecoms operations and the creation of regulatory bodies led to the need to create associations of regulatory bodies mainly for the same purpose, though the challenges differed in the post-reform era. The creation of regional associations may have

started with the East African Regulatory Posts and Telecommunications Organization (EARPTO) still active and dynamic in coordination of sector development for the East African Community (EAC) member countries (Kenya, Tanzania and Uganda). EAC-member countries used to have a single operator for the region and shared English as an official language. Coordination and cooperation including cross-border activities are therefore made easy.

The Southern African Development Community (SADC) region has been the first to create an association focusing on the telecom sector, the Telecommunications Regulators Association of Southern Africa (TRASA). Three factors have been instrumental for the early move of SADC towards the creation of TRASA:

- The pre-existence of an association of Southern African Telecommunications operators (SATA) which built the foundation for the spin-off of the regulatory component to create TRASA;
- The existence within its structure of the Southern African Transport and Communications Commission (SATCC) headquartered in Maputo, Mozambique, and which is in charge of an integrated development of the sector in the region; and
- More importantly, the benefit reaped from the SATCC Southern Africa Regional Telecommunications Restructuring (RTR) programme, a 5-year assistance programme funded by the United States Agency for International Development (USAID) from 1995.

The RTR programme kick-started the telecom sector reform and delivered the following main outcomes at the regional level:

- The “Model Telecommunications bill” document that provides a unified platform for SADC governments to harmonize their telecommunications laws and policies;
- Tariff rebalancing, development of internet connectivity and service operations;
- Universal service; and
- Support for the creation of TRASA aimed at facilitating regional integration of telecommunications policies, standards and procedures. Issues related to privatization and regulation were addressed and regulators had the opportunity to visit US-based telecom institutions such as the (FCC) to learn more from the field of operations through a professional training programme designed for executives. The RTR also supported single-country focused projects such as drafting telecoms laws or defining the regulatory framework.

After the end of the RTR programme in September 1999, TRASA maintained the momentum and has since issued a number of harmonized regional regulatory materials for use by its members, such as the Interconnection Guidelines, the Tariff Guidelines and a Model Telecom Policy. However, despite the availability of such instruments, some member States still lag behind for various reasons, which inhibits the harmonization process, although some countries (South Africa, Botswana, Mauritius) made significant progress.

Emulating TRASA, the regulators in the Economic Community of West African States (ECOWAS) subregion established the West African Telecommunications Regulators Association (WATRA) in June 2002. It is to be noted that the move to establish WATRA did not result from a prior consensus-building process and that ECOWAS does not have a separate body in charge of transport communication, as does the SATCC for SADC. In October 2005, WATRA adopted regulatory guidelines on interconnection, spectrum management, licensing, and model telecommunications law, among others.⁹

ECOWAS is presently consulting within the subregion on a study it initiated for establishment of a Regional Regulation Board to regulate the West African Power Pool (WAPP) and other cross-border interconnection arrangements.

⁹ Telecommunications Development Bureau, ITU – 2006: Building an inclusive information society for Africa; Regulatory Challenges and Opportunities.

6. Institutional and Human Capacity in Regulation

Institutional and human capacity, which is among the key indicators of an effective regulatory regime, has been singled out given its importance in the realization of regulatory objectives. In most African regulatory authorities, the major obstacles to their effectiveness have been weak institutional and human capacity in regulation. Many regulatory institutions in developing countries are no more than a few years old. The challenges in establishing new public institutions in developing countries have often been underestimated. It takes time to build and entrench governance, management and organizational systems and practices. The appointment of regulators remains largely a government responsibility and few have experimented with appointment committees. The consequence can be inappropriate choices of commissioners without the requisite skills or experience. African regulators have experienced high turn-over of board members and management. As a result, institutional development and memory is hampered.

Developing country regulators face huge issues around regulatory substance, i.e. the quality, credibility and impact of their regulatory decisions. Regulatory substance can be compromised by inadequately trained and experienced regulators. Building the professional capacity of new regulators is one of the biggest challenges facing the infrastructure sector in Africa.

In a 2003 AFUR-commissioned survey of the capacity status of African regulators, the following priorities for training were identified:

- Funding a regulatory body;
- The nature of the utility market – natural monopolies and competition;
- Ensuring that any restructuring or consolidation of companies providing a utility service was compatible with effective competition;
- Financial analysis (net present value concepts, basic financial statements, determining the cost of capital);
- Regulating overall price levels;
- Controlling pricing when users have no choice of supplier;
- The role of government in tariff setting;
- Different options and methodologies for tariff setting;
- Information issues;
- Making good regulatory decisions;
- Reviews of and appeals against regulatory rules and decisions;
- Knowing how to communicate to the public;

- Negotiating techniques and strategies; and
- Critically reviewing company plans to provide utility services.

Various possibilities exist by which capacity-building activities for African regulators can be implemented. It will therefore be necessary for the regulator, as one of its first activities, to analyse carefully the most urgent tasks to be addressed as well as the available skills resources, and then prioritize the training needs. The training approaches adopted will be influenced to a large degree by the financial constraints within which the agency operates, and by the professional skills that it has been able to recruit. Among the approaches to be considered are the following:

- Study tours;
- Training courses;
- Custom designed training programmes;
- On-the-job training;
- In-house advisors; and
- Institutions of higher learning.

Each training option is discussed in greater detail below:

6.1 Study Tours

Visits to regulatory institutions operating under similar circumstances in other countries constitute an effective approach to learning how to address practical regulatory issues. An added advantage is that contacts will be established to allow networking among the institutions after the tours have ended. Such tours are usually of relatively short duration (2 to 3 days) and are best suited to senior-level staff (commissioners and senior managers), who deal with the broader issues. It would be advantageous if the tour could encompass more than one country in order to widen the scope of experiences to which the visitors will be exposed. The major problem with study tours is normally that the travel and accommodation costs tend to be high.

6.2 Training Courses

A relatively large number of institutions offer regulatory training courses at regular intervals, covering not only general regulatory environments but also specific issues such as tariff determination, interconnection, and investment planning. Among these institutions are:

- The Public Utilities Research Center (PURC) of the University of Florida, which offers a multi-faceted two-week course twice yearly in conjunction with the World Bank;
- The Adam Smith Institute, London, U.K., which is a programme of general and specific regulatory courses, with the possibility of preparing special courses tailored to specific requests;

- The Institute for Public-Private Partnerships, which offers introductory training on fundamentals of regulation, specific courses on regulatory body design and management, and advanced courses in tariff-setting and rate reviews;¹⁰ and
- The Graduate School of Business of the University of Cape Town, which offers one-week courses on reform and regulation of African utilities sectors.

These courses have been developed around the practical experiences of regulators around the world, and provide theoretical bases and examples of practical experience to assist in regulatory decision-making. They also provide opportunities for the exchange of experiences and the development of information-exchange networks. Understandably, the depth to which any particular topic can be covered is restricted by the relatively short length of the courses, but they do provide the basis for sound understanding of the fundamental issues.

6.3 Custom Designed Training Programmes

A new regulator may seek the services of the established regulatory training institutes or other consulting organizations with the requisite skills to design and present training courses developed to address the regulator's specific needs and designed for the target audience. Although it would be possible for these courses to be presented in some other country, that approach is not likely to be cost effective, especially where a relatively large number of participants would be involved. If presented in-country, the audience could be expanded to include staff of the utilities and the associated Ministries, thereby engendering a better understanding of regulatory principles and practices. In addition to being tailored to the regulator's special needs, this approach has the further advantage of being scheduled to suit the regulator's convenience. The courses may also be structured as a series of modules of relatively short duration (one or two weeks) and presented over an extended period of time – a year or more, for instance.

The regulator could consider entering into a contract with a single training organization with the competence and experience to provide the full range of planned training events. In this way, a more consistent and logically progressive programme can be developed with a single point of management contact. Alternatively, the contract could be with an individual who would design the programme and procure the services of presenters for each module, some of which could be presented by him/her. Cost is likely to be the major disadvantage of such an approach.

6.4 On-the-Job Training

Especially in the early phases of its existence, a regulator will be dependent on consultants to undertake much of the regulatory work, involving analytical, technical, and legal and strategy issues. The terms of reference for such contracts issued to consultants must include a specific requirement to provide on-the-job training to appropriate staff. Proposals to undertake the work should be required to specify in detail how the training and other capacity-building elements of the project will be carried out, and how the effectiveness of the training activities will be assessed.

¹⁰ The Institute for Public-Private Partnerships, Inc. (IP3) and the Water, Engineering and Development Centre of Loughborough University (WEDC/LU) offer a joint professional certification for of Certified Regulation Specialist™. More information on this certification programme can be found at www.professionalcertifications.org.

6.5 In-House Advisors

A variant to the on the job training discussed above is the engagement of one or more persons charged specifically with transfer of knowledge. Normally they would also undertake some portion of the routine work of the agency as well, but the emphasis would always be on transfer of knowledge. Suitable candidates would have achieved proficiency in more than one area of regulatory functions and be able to demonstrate successful training records in previous spheres of employment.

6.6 Institutions of Higher Learning

Universities or other institutions of higher learning are potential sources of skills development for regulatory staff. Typically, regulatory staff could undertake a Masters' Degree or Postgraduate Certificate course in specific academic disciplines. It is, however, an area worth investigation, especially as it may then be possible for staff to participate in part-time courses while continuing to perform useful work in their substantive positions and maintaining familiarity with on-going regulatory issues. Full-time courses would require staff to be out of the office for a period of approximately one year.

A number of academic institutions offer postgraduate courses on a distance-learning basis, combined with a series of short residential courses. These are typically less expensive than full-time courses abroad and allow students to continue working on a part-time basis.

Full-time study abroad is yet another alternative. A number of universities with good academic reputations offer postgraduate courses specifically designed for regulatory staff. These courses would obviously require staff to be out of the office for the full period of study, not likely to be less than one year, and would probably be the most expensive of the alternatives discussed in this section.

Training in institutions of higher learning has disadvantages other than expense. The courses tend to be highly theoretical, and may be of limited relevance to African realities.

7. Conclusion

The paper has explored the African experience in regulatory governance. It has depicted the status of regulation, highlighting the benefits and wider potentials for social and economic development that could be engendered by infrastructure development. However, the major challenges confronting African regulators pertain to autonomy, institutional, and human capacity, which together affect effectiveness in dealing with such tasks as tariff regulation, licensing, spectrum management and dispute resolution, among others.

Review of the institutional and political context within which regulatory authorities exist in Africa is needed. There are various models which have to be considered within the context of individual African countries and the continent as a whole. These models are discussed below.

7.1 Regulatory Contracts (Regulation by Contract)

In regulatory contracts, (or regulation by contract), regulatory regimes, including multi-year tariff setting systems, are pre-specified in detail in one or more legal instruments, such as basic law, secondary legislation, licences, concession contracts and power purchase agreements. Regulatory contracts are generally constructed within the context of private sector participation.

They may also be used to improve the performance of state-owned utilities. There are three variants to this model. In the first case, key contract provisions, such as tariff setting formulae, are self-administered by the parties to the contract, i.e. regulation without a regulator or the assistance of third parties. In the second case, provision is made for aspects of the contract to be undertaken by third parties. In the third variant, a detailed tariff-setting agreement, although embedded in a law, licence, concession or contract, is administered by a regulator.

There are a number of key provisions that typically make or break regulatory contracts, including:

- Pass-through of bulk purchase costs;
- Indexation of key costs and foreign exchange risks;
- Efficiency targets;
- Poor initial data;
- Investment obligations;
- Subsidies for pro-poor service;
- Unexpected and extraordinary events;
- Periodic and emergency adjustments;
- Resetting of values at the end of the multi-year tariff period;
- Monitoring and enforcement;
- Dispute resolution and arbitration provisions; and
- Termination clauses.

7.2 Outsourcing Regulatory Functions

Outsourcing – or the contracting-out of regulatory functions – is the use of external contractors to perform certain functions such as tariff reviews, bench-marking, monitoring of compliance or dispute resolution. Outsourcing may be considered when there are challenges or problems regarding a regulator’s independence, capacity or legitimacy, or where regulatory contracts require additional support for their effective administration. Contracting-out models take two broad forms. First, they may involve primarily consulting or technical support for regulators or the parties to a regulatory contract. Second, they may involve the contracting by government of separate advisory regulators or expert panels. Most regulators outsource at least some regulatory functions, which most frequently take the form of technical support, rather than any formal role in regulatory decision-making.

7.3 Advisory Regulators and/or Expert Panels

The advisory function of advisory regulators or expert panels may be expressed either strongly or weakly. In a weak advisory regulator model, advice is usually given confidentially

and the Minister or appropriate Authority is under no obligation to explain rejection or modification of recommendations. In a strong advisory regulator model, the regulator or expert panel's advice must be given in a publicly available document that provides a clear statement and explanation of the decision. The Minister or relevant Authority must provide public explanations if the advice is modified or not accepted. Expert panels may also be used to arbitrate disputes between regulators and utility operators (for example, in Chile) or disputes that arise out of contested interpretations in regulatory contracts (for example, the water and electricity concession in Gabon). The functioning of expert panels or advisory regulators needs to be governed by a set of rules embedded in a regulatory contract or in primary or secondary legislation.

Regulators in Africa have in some instances used a combination of the above models depending on their political and institutional realities, to carry out their regulatory mandates. In terms of the way forward, the following recommendations are being made:

7.4 Regulatory Studies

Studies should be carried out both at the domestic and regional level to determine the best regulatory models suitable for each country and subregion within Africa taking into account social, economic and political realities within Africa. Such studies are necessary as adopting regulatory models from developing countries without factoring Africa's development realities raises issues in terms of the political acceptability of such principles as the independence, autonomy and authority of the regulator. Analogous to this problem is the structural adjustment programmes, that were imposed on African countries in the mid-1980s without building consensus within Africa on the design and implementation of the reforms. Thus, the regulatory studies should be extensively consultative to engender ownership of the regulatory reform programme.

7.5 Capacity Building

Even where appropriate model(s) have been identified for Africa, most of its regulatory authorities would still be confronted with capacity problems in effectively discharging their regulatory responsibilities. Thus, they should tap into the capacity-building support from multilateral organizations such as the World Bank, Public-Private Infrastructure Advisory Facility (PPIAF) and the African Development Bank, among others that have funding programmes to support regulatory regimes in Africa

7.6 Regional Harmonization

The harmonization initiatives taken by TRASA in the SADC subregion should be emulated by other subregions within Africa. The harmonization of regulatory policies such as interconnection, licensing and tariffs would assist in establishing regional best practices and benchmarks for regulation. Capacity-building support could also be channelled through the subregional organizations to develop regulatory harmonization guidelines and to conduct relevant training.

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