

***DRAFT TELECOMMUNICATIONS REGULATORY  
FRAMEWORK*****Introduction:**

The specific regulatory structure and processes are conditioned by several country specific factors:

- (a) The countries political system and institutions, as well as its political, economic and social objectives;
- (b) The structure of the existing telecommunications industry and the expected direction of change (e.g. full or partial monopoly)
- (c) The specific matters that are subject to regulatory action, namely, WHAT is being regulated (e.g. technical standards, interconnection, tariffs profit and prices, licensing carriers type approval of customer premises equipment CPE, frequency spectrum matters Human Resource activities and manufacturing.

**The regulatory policy issues may include among others:**

- 1. Universal Service.
- 2. Define the distinction between public and private services.
- 3. Interpret the law and reconcile policy objectives.
- 4. To ensure that manufacturers provide appropriate CPE for the disabled.
- 5. Ensure efficient procedures for interconnecting between new and existing service providers.
- 6. Check on reasonable pricing to cost ratios and relate this to quality of service.
- 7. Authorise and assure transparency of schemes for subsidies where required.
- 8. Establish clear-cut dispute resolution procedures.
- 9. Monitor research and development in relation to turnover and GDP.
- 10. Monitor Human Resource Development within telecommunications sector.

11. Regulate technical standards and use of frequency spectrum and geo-stationary orbit.
12. Regulate transiting procedures (Lesotho and Swaziland etc).
13. Promote technology and know how transfer.
14. Regulate cross ownership of broadcasting and telecommunications.

**Notes:**

**A. The Political Context of a Regulatory Structure.**

The basic design of a regulatory structure is country-specific feature. The choice of a regulatory structure must be seen within a broader framework of the country's political and governmental system and institutional arrangements.

The political system and institutions shape what regulatory are viable and their likely effectiveness. The regulatory body also depends on the country's broad political, economic and social objectives. In particular the arrangements required to support telecommunications development in an open, pro-competitive enterprise environment or quite different from those adapted to a monopolistic or state owned telecommunication environment or a combination of both.

In general the regulatory entity should be seen to have expertise, stature integrity and commitment to public interest. This means it must be impartial. Its processes must be transparent, open to all industry and consumers, and set out publicly the bases for its actions.

**B. Factors Affecting the Choice of Structure**

1. **WHAT activities are being regulated?**  
e.g. The inclusion of broadcasting within jurisdiction of the entity generally may call for a collegial body rather than a single regulatory decision-maker.

2. The degree of "independence" sought : The term does not mean "independence" from the laws and policy goals of the country. It can variously refer to the separation of regulatory and operational functions, neutrality, insulation from external pressure or simply the designation of an official publicly identified as having the regulatory responsibility and not subservient to the rest of the ministry.
3. The degree of "simplicity" and "independence" are not necessarily irreconcilable. Moreover, simplicity may be regarded as inexpensive or efficient or a combination of both. Whether a " simple " structure is possible will also depend on what is to be regulated and the political environment.
4. The lack or absence of a long term telecommunications policy (Master-Plan) which is a pre-requisite to deciding what and how to regulate might hinder the process of regulation.
5. Lack of expertise may also be critical in structuring the regulator. One possibility may be to husband scarce resources in order to discharge regulatory issues of a policy nature while finding other means to assist (contracting out) in the discharge of regulatory issues of technical nature.

**C. What Issues are to be Addressed by the Regulator Entity**

**1. General considerations**

- I) In view of rapidly developing technologies and changing, markets, the regulatory entity must anticipate developments and not merely deal reactively with particular matters brought before it. At the time, the transitory nature of needs recognition: a set of seemingly current rules may be made quickly outdated by a rapid developing telecommunications sector;

- II) The global market place in which telecommunications increasingly participates means that regulatory entities will in future possess in practice less autonomy in deciding on some issues to be addressed by them; there will be a greater commonality of issues on the regulatory agendas of different countries.

## 2. Specific Themes

- I) The source for setting the agenda should be established in the authorising statutes for the regulatory entity;
- II) Various specific source can be identified submissions by applicants, generic hearings and public notices, informal contacts, consumer complaints, and competition-policy "antitrust" agencies or courts.

## 3. Some Cautions

While access to the regulatory process for outside parties, and the right to submit information to the regulator is important in helping to establish the agenda, it is also critical to protect the integrity of the regulator under these circumstances and to safeguard the transparency of the regulatory process.

## 4. How does the Regulatory Entity Consider and Decide Issues?

At the "macro" level would be the basic design of the regulatory regime in terms of the country's political system and objectives, while the "micro" level would reflect the detailed design of ways, tools and guidelines to carry out regulation. For example, the "macro" level might contain such issues as structural framework, what extent of competition is desirable, how licenses are to be granted, while the "micro" level might contain the administrative processes and decisions within this framework.

Other distinctions are regulatory policy visus administration, and legislative visus executive decisions. It is obvious that there is no simple correspondence among these three sets of distinctions.

- (I) The distinction may be of less relevance without a governmental system based on separation of powers, although it may nevertheless retain some value.
- (II) The distinction does not reflect two different worlds: in reality they interact closely. For example, legislative or ministerial policy makers take decisions on the basis of information and advice from regulators, while a seemingly minor technical matter may give rise to a fundamental policy issue.
- (III) It may not be clear which type of decision is taken and at which level, leading to a lack of transparency and consequent delays, for this reason, it may be useful, before a country introduces the regulatory framework to have an open debate on the issues, taking into account the needs of consumers and investors, and the need for flexibility.

## **5. The need for Transparency**

- I) Whatever the particular process selected, there is a need for clear "rules of the game", predictability, mechanisms for input by interested parties, including input from the average citizen, and also mechanisms to provide more information to the public.

## **D. Implementing and Enforcing Regulatory Decisions**

- I) What are the various types of enforcement mechanisms: e.g. penalties, forfeitures, criminal violations?
- II) How severe should the penalty be? Criminalization (e.g. going to prison for installing the wrong telephone) may well be inappropriate. Providing only draconian penalties may be counterproductive because of the regulators' unwillingness to apply them.
- III) When should decisions be enforced? Lack of resources may force a regulatory entity to limit its enforcement of certain types of decisions in the face of widespread violations, a better approach may be not to have a regulation if it cannot be enforced.

- IV) Public pressure and moral persuasion may be more effective than strict enforcement, but this is dependent upon the transparency, stability and integrity of the regulatory process.
- V) An educational process may be essential to explain to the public the basic concepts of regulatory decisions, the kinds of action which violate such decisions, and the resulting penalties.

## **E. Resources**

- I) Sources of revenue to meet regulatory costs: a principal means is to obtain the funds from those being regulated, e.g. through franchise or license fees.
- II) The costs of regulation need to be put in perspective. The costs of lost opportunities and failure to achieve economic efficiency resulting from the lack of clear rules and processes may greatly exceed the regulatory costs normally constitute a very small of the cost of PTO operations in most countries.

## **F. The Scope and Objectives of Regulation**

A regulatory system for telecommunications at the national level contains four main elements:

The basic legal instrument(s) establishing the regulatory body or bodies, defining the regulator's powers, rights and obligations, and defining the rights obligations of the regulated PTOs and other entities in relation to telecom regulation.

### **1. The regulatory organisation itself.**

The linkages of the regulatory organisation to other parts of the government structure, including Ministers or equivalent office-holders, legislature and the courts.

2. **The working methods of the regulatory organisation.**

However, before embarking on the design or redesign, or even refinement (fine tuning) of a regulatory system, some fundamental choices must be made. These choices can usefully thought of as the answers to three basic questions:

- **Why regulate?**
- **What to regulate?**
- **How to regulate?**

I). **Why Regulate?**

Any effective regulatory system must be charge with one or more clear fundamental "mission" that define the results that regulatory decision-making and intervention is intended to achieve. A statement may include one or more of the following elements:

- Achieving progress towards the social goals typically include some concept of "**Universal Service**" designed to ensure that no geographic area or social group is deprived of access to telecommunications service on reasonable terms. They may include goals concerning the availability of service to rural, limited-income households, or the disabled.
- Protecting user interest even beyond these types of social goals. The regulator may have a general obligation to protect the interests of telecommunications users, and to consider their complaints.

- Moving towards "level playing field" - regulatory policy may call for a transition towards conditions of participation in the market which are non-discriminatory as between different carrier, including the major established carrier.
- Supervising the dominant PTO - where the incumbent PTO retains either a monopoly or a dominant market share, control of its activities may be a major mission, or even the mission, for the regulator. Such control may be exercised for varying ends, e.g.:
  - Achieving the maximum rate of reduction of prices compatible with desire levels of service quality.
  - Enforcing "**Universal Service**" obligations.
- Stimulating innovation. The regulator may be required to identify opportunities for service innovation, and take action designed to remove obstacles to such innovations (as in the case of frequency allocations/assignments for Personal Communications Networks - PCN) or even to actively promote such innovations.
- Assuring technical preconditions for effective operations - for example, controlling and updating the numbering plan, or defining technical and financial conditions for the interconnection of different carriers' networks.
- To ensure standard safety levels with respect human exposure to radio frequency electro magnetic fields and any other related radiation.
- Managing common resources effectively. Use of certain physical resources and related right, such as the radio spectrum or public rights-of-way, may be controlled by the regulator.
- Stimulating investment in the public network. A pressing need to accelerate investment in expanding and upgrading the public network infrastructure may mean that creating favorable conditions for this is a key responsibility of the regulator.



## NOTES:

- \* The specific definition of the telecom regulator's mission in each country will reflect varying national circumstances, for example, the state of development of the public telecommunications network, the level of economic development, and the institutional framework, constitutional provisions, the legal system and the national tradition of public administration.
- \* The roles of a variety of different interest groups (for example, business telecom user, residential users, or PTOs) in each national situation will also shape the definition of the regulatory mission. Pressure from dissatisfied users, and/or from government agencies concerned about the economic consequences of failing to meet user needs, may for example, shape the definition of the regulatory mission.
- \* In the case of S.A - apartheid ought to influence the mission. These various factors, and hence the way the telecom regulator's "mission" is defined, are likely to differ between advance industrial countries and less-developed or newly-industrialised countries.

## II). What to regulate?

A national regulatory policy may provide for the regulator to:

- Set technical standards.
- License carriers
- Regulate carriers' prices (tariffs) for service.
- Approve carriers' programmes of construction and capital investment.
- Set the terms (financial, administrative and technical) for the interconnection of different carriers' networks.
- Control the type-approval of customer premise equipment (CPE) and its connection to the public network.

- Control ,allocation, notification on the use of radio frequencies and geo-stationary satellite orbit.

### III. How to Regulate?

#### Alternative Approaches to Regulation.

- Given a defined "mission" or "missions" and a decision on what to regulate, the regulator can still choose (or be directed) to fulfill the mission(s) using widely differing regulatory approaches.
- Terms like "light touch" regulation are sometimes used. A useful way of defining different regulatory approaches or style distinguishes two kinds of choices that must be made:
- How far the regulator will exercise control routinely, and how far the regulator will act "by exception"?
- How far the regulator controls outcomes directly, or indirectly. For example, if one goal of regulation is low prices for service, will the regulator control prices directly, or promote an industry structure that is considered to be favorable to achieving low prices? Or to take another example, will the regulator directly impose particular targets for network expansion and modernization, or concentrate on establishing incentives designed to encourage carriers to pursue these goals?

### G. Division of Authority/Relationship with other Agencies

In defining the role of the telecom regulatory body, it is necessary to specify two key aspects of its place within the overall structure of government:

- The degree of independence the regulatory body possesses and the extent to which responsibility for regulating telecommunications is assigned to a separate and autonomous organisational entity.
- The working relationship and linkages of the regulatory body with other parts of the government structure.

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## **Degree of Independence/Autonomy**

Independence of the regulatory body (by which we mean whatever individual, board or administrative unit makes decisions on regulatory questions) has three distinct aspects:

- Independence from the operational organisation or organisations responsible for building and operating the public telecommunications infrastructure and providing telecommunications services (the PTO)
- Independence from other interested parties, such as industrial interests.
- Independence from Ministers (or other elected office-holders) in dealing with day-to-day matters, once the general framework of telecommunications policy has been set, by legislation or otherwise (depending on the national constitutional framework).

It is widely recognised that, while some regulatory functions (such as CPE type approval) can be carried out by a decision maker without any of these three types of independence, each of them provides important advantages.

The organizational structure for telecom regulation can take several different forms, with different implications for the question of independence.

- A distinct regulatory body within the government Ministry department responsible for telecommunications, as in France Germany, Mexico or Spain. The Ministry may or may not also have one or more operational entities (i.e. a "PTT") within it, or under its control, as is the case in France Germany and Mexico.
- A fully autonomous regulatory body empowered to make regulatory decisions not subject to review by Ministers (or their equivalents), although the decisions may be subject to appeal to the courts, as in the case of the US.

- A regulatory agency whose decisions are subject to review by Ministers in some circumstances but which may be highly independent in practice. We refer to this type of regulatory body for brevity as a semi-autonomous agency". This type of arrangement applies in:
  - \* Canada, where the CRTC's decisions are subject to review by the cabinet but where the cabinet only rarely exercises this prerogative.
  - \* Argentina, where the Commission Nacional de Telecomunicaciones (CNT) regulates the PTOs, subject to a right of appeal to the executive branch of government.
  - \* The UK, where the Director General of Telecommunications (the head of Oftel) exercises substantial independent powers on certain matters. On other matters the Director General advises the relevant Minister, the President of the Board of Trade, and this advice normally becomes government policy.
- "Self-regulation" by the PTO, and regulation of other parties (e.g. for CPE type-approval or radio frequency assignments) by the PTO. This is the situation in many developing countries, and a few industrialised countries.
- No telecom-specific regulation, the approach which has been attempted is New Zealand.

## **H. Relationship between the Regulator and other Government Agencies**

The key features determining the overall structure of relationships between the regulatory body and other parts of the total government structure are:

- Whether the main regulatory body for telecommunications manages radio spectrum matters or must work with another agency which has this responsibility.
- Whether the telecom regulatory body's jurisdiction will be limited to telecommunications according to a narrow definition, or whether it will include related areas such as broadcasting or cable television.

- The degree to which regulatory decisions are constrained by the decisions of competition policy ("antitrust") agencies.
- The degree to which the regulatory agency's decisions are subject to the courts or to other review bodies.
- \*Whether the telecom regulatory body has jurisdiction over broadcasting infrastructure.
- In cases where the regulatory agency is "semi-autonomous", as defined above, the extent to which any rights of other government bodies (e.g. Cabinet review in Canada) to review regulatory decisions are intended to be activated in practice - for example, are these intended only to apply exceptionally in matters affecting national security?
- The relative roles of the telecom regulatory body and executive government agencies, including the Ministry of Foreign Affairs (or its equivalent), in dealing with international relationships and issues.

The following are major points that merit consideration when reviewing these matters:

- \*The role of radio-based technologies in public telecommunications has substantially increased: it is increasingly difficult to consider general telecommunications policy separately from radio-spectrum policy.
- \*"Media" areas such as broadcasting or cable TV are often regulated separately because of the social and political issues raised by their programming content. However, this separation is less and less satisfactory in the case of convergence of cable TV with the telephone service business and common use of satellite and other terrestrial networks.

## I. Process of Consideration and Decision Making

I have conceptually divided the sequence of steps leading to the making of a decision into two stages:

**Stage 1:**        *"The process of Consideration"*, which :

- Clarifies and defines the problem to be solved and the objectives that the ultimate regulatory decision should serve.
- Identifies the available policy alternatives.

- Obtain information needed to assess this alternatives.
- Develops an understanding of the advantages and disadvantages of the alternatives.

**Stage 2:**     *Making and Justifying the Decision.*

Alternative approaches to these two stages are defined and discussed in detail in Chapter 5 of the report. The issues have to be considered separately for two types of decision, which have different requirements :

- Licensing decisions.

Other regulatory decisions. These comprise :

- Regulatory policy decisions, such as policy decisions about whether PTO's pricing for specific services, or 'bundles' of services, will be regulated .
- Decisions on matters of detail, e.g. decision on whether to allow or disallow specific pricing levels or structures for a carrier's services.

**"Process of Consideration"**

The principal choice to be made here concerns how far the regulator will use extensive formal procedures open to outside intervenors and 'transparent' to the public (the 'due process' approach) , or alternatively how far the 'process of consideration' will take place informally and privately within the regulatory agency.

The case for extensive formal procedures rest on :

- Their ability to mobilize an extensive body of argumentation, data and analysis.
- Their perceived fairness to all concerned parties.
- The 'transparency' of the process.

The case against rests on :

- The complexity and cost of such formal procedures.

- The relatively long delays sometimes involved.

The extent to which complexity, cost and delay are significant problems with formal consultative procedures depend on the detailed design and management of the procedures. Timeliness, simplicity and low cost are achievable. One set of important choices that must be made concerns whether and how the regulator will use the following regulatory "tools":

- *Public Consultative Documents*, which specify a problem to be solved, and may also present data, analyses or points of view about it.
- *Public hearings* in which verbal testimony is taken from interested parties ("intervenors").
- *Structured Consultative Proceedings* based on the submission of written comments by intervenors.
- *Use of Analytic Findings by Intervenors*: Some countries' regulatory systems encourage intervenors to perform and submit extensive data-collection efforts and /or analytical studies.
- *Reply Comments*: where structured consultative proceedings are used, intervenors may be given an opportunity to review "first round" written submissions by other intervenors, and submit replies, rebuttals or supplementary comments and analyses.
- *Use of Legal Authority to Obtain Information*: national regulatory bodies vary in the degree to which they possess and use mandatory legal powers to require disclosure of information from PTO's and other regulated entities.
- *Analytical Work* by the regulatory body's staff or contractors.

### **Making and Justifying a Decision**

Where the decision itself is concerned, the design of the regulatory system must specify:



- Who exactly has decision-making authority? (If the answer is a group of regulatory commissioners, voting rules must specified).
- Will the draft decision be made available for public comments before being finalised?
- Is there a right of appeal? Under what circumstances? To what body?
- Whether the regulator will announce each decision publicly in writing, whether the regulator will provide a written justification of the decision, and what level of detail will be given in the justification?
- A collegiate body of decision-makers is especially appropriate in politically-sensitive situations where the regulatory body must be seen to be broadly representative (e.g. where decisions are been made about broadcasting licenses). However, many observers argue that speed, decisiveness and economy are important arguments for appointing a single regulatory decision-maker for telecommunications, as in France and the UK.
- The case for easy access to mechanisms of appeal against regulator's decisions rests on the need to take account of human fallibility, and the through "checks and balances". On the other hand, if such access is very easy, the costs and delays involved in the regulatory process may be greatly increased.
- The case for publishing written, reasoned and analytical-based justifications of the regulator's decisions, in considerable detail, is strong. It reinforces the "transparency" of the regulatory process, explaining the considerations on which decisions are based, and enhances the regulator's reputation for professionalism and objectivity .

In the special case of the licensing of carriers, e.g. the licensing of new cellular operators or new long-distance telephone companies, further choices present themselves. The licensing decision may be made by:

- Case-by-case ad-hoc decision-making.
- Comparative qualitative evaluation of bids ( a " beauty contest ")
- Comparative hearings
- Lottery
- Auction
- Grant of a franchise license by legislative action.
- Combinations of the above, e.g. an auction among bidders who succeeded in the initial "beauty contest".

The case for and against the alternative methods of assigning licenses depends very critically on the varying policy goals and economic philosophies prevalent in individual countries .

## **J. Implementation and Enforcement Mechanisms**

The appropriate mechanisms for implementation or enforcement of the telecom regulator's decisions depend on the type decision ( a decision to require compliance with a technical standard, for example, or to control the prices to be charged by a particular carrier ). In general, however, the key choices are :

- Whether the regulatory body itself has the power to make legally binding orders, either initially (when a policy decision is made), or when the regulator determines that some party is violating the terms of a regulatory decision, license or other regulatory "instrument". If not, the regulatory body must be able to apply to some other authority (e.g. a Minister or a court) for a legally binding order.
- Whether the regulatory body has legal powers of investigation, and investigative personnel and resources, to detect and prove violations, or whether it relies on other governmental bodies and/or public complaints in order to detect violations.
- What role is played by "self certification", for example, CPE vendors certifying that they comply with standards .

- What recourse the regulator has if legally binding decisions are persistently violated.

It is worth noting that the implementation of telecom regulations (as for almost any kind of law that is effective in practice), must rely heavily on voluntary compliance, with enforcement mechanisms "held in reserve" for exceptional situations. This observation focuses attention on:

- The need for the regulator to inform and educate the relevant parties (including, for certain matters, the general public) about their rights and obligations arising from telecom law and regulation, and about the very real benefits arising from compliance with these.
- The extensive scope for "self-policing", for example through CPE self-certification.

## **K. Resources**

Operating an effective telecom regulatory agency, though far from being one of the costliest undertakings of national governments, does require significant resources in terms of both budgets and specialized professional personnel. The report :

- Indicates the level of budgets and staffing that has been found necessary in certain "case study" countries.
- Notes that it is often possible to finance the regulatory body via a modest levy on the revenues of the PTO's. This is done, for example, in the UK. and also in Argentina, where PTO's are required to pay 0.5% of their revenues for this purpose.
- Argues that the quality of professional work performed by or for the regulatory body is critical to the credibility of the regulatory process and the validity of the decisions it produces. The resulting economic impact (favorable or unfavorable) on the PTO's and their users - which means the entire economy - is likely to vastly exceed the relatively modest direct cost of the telecom regulatory process.