



Comparative Study of Regulatory Framework in Infrastructure Sector: Lessons for India

Many developing economies have adopted competition laws as a follow up to their market-oriented economic reforms. Most of them have also adopted regulatory laws in several sectors as they were opened up for private players.

However, developing countries pose unique challenges for competition and regulatory law enforcement, which are inspired mostly by similar regimes in developed and industrialised countries.

This briefing paper analyses and compares the regulatory framework in seven selected countries¹ in respect of institutional and governance aspects and identifies lessons for India.

Introduction

While the thrust of economic reforms has been to allow for more competition in the markets, there is now a growing realisation that such a shift towards a market-oriented economy does not mean that the 'invisible hand' will work to allocate resources efficiently and produce competitive outcomes, as potential benefits are often thwarted by market-distortionary practices. These usually relate to fixing of prices with rivals, setting a price which is lower than the cost to throw out competitors from the market, taking advantage of a monopoly position and charging unreasonable prices, refusal to buy or supply, etc.

Where competitive markets are not able to yield desired results, a case is made for some intervention to control prices and quality of products and services. In such situations, regulation emerges to stimulate competitive outcomes.

An important factor that calls for regulatory intervention in infrastructure sectors that are opened up for other players is 'access to essential facilities'. Another reason is that while markets can be expected to bring about equilibrium between 'need and supply', from a social point of view it is desirable that all consumers, regardless of their income status, have access to services, such as electricity.

For the Indian economy to achieve and sustain an annual growth of 10 percent, creation of quality infrastructure is critical. It is estimated that India needs more than a trillion dollars of investment in infrastructure. However, for private sector investment to come in on a meaningful

scale, two conditions have to be met with. One, markets for infrastructure services must be created by dismantling the existing public sector monopolies and two, these markets must be regulated properly to either eliminate non-market risks, or to at least minimise the same through a predictable legal environment.

The following sections focus on the latter aspect by describing and discussing international experience with infrastructure regulation. It assumes as its operating premise that the regulatory framework must be transparent, consistent, effective and independent of the government.

Need for Regulatory Framework

Developing countries are in general characterised by low *per capita* income and consumer welfare levels, thus economic policies have the objective of reducing poverty and improving the well being of the masses. Therefore, the regulatory endeavours are not only concerned with pursuit of economic efficiency but also with social welfare goals. This led to a policy shift that involved restructuring/privatisation of the state-owned enterprises (SoEs), which incurred deficits and their poor performance in infrastructure sectors became a drag on growth.

However, restructuring/privatisation alone could not end state involvement. In order to exercise control over privatised monopolies and dominant players, industry specific regulators have been introduced in several countries. Several sector specific regulatory institutions have been established with varying degree of mandates and autonomy.

Table 1: Status and Experience in Various Countries

UK	Government policies shifted in the 1980s from state ownership and delivery of utility and infrastructure services to private delivery and public regulation. This move was initiated by the failure of the state-owned utility industries characterised by a lack of competition, low investment and political interference.
South Africa	The emphasis has been on restructuring of the state sector and making it more efficient rather than privatisation. Electricity, transport and telecommunications sectors have been restructured where the Government has retained the majority stake. Independent regulatory institutions have been set up in some sectors. Current efforts aim at avoiding proliferation of regulatory agencies.
Canada	Has a federal regulator at the national level for energy, telecommunications, and transport sectors. Energy sector is also regulated at the provincial level. In this process, the National Energy Regulator only looks into inter-provincial and international transactions. In the case of telecommunications and transport services, except highways, regulation is carried out on a national basis. Water distribution is entirely a provincial matter and in most cases the responsibility has been further delegated to the municipal authorities.
Brazil	Reforms in the Brazilian infrastructure sector were part of the overall macro-economic reform agenda introduced during early 1990s in response to a severe financial crisis. One peculiar feature of Brazilian regulatory regimes is that despite functional autonomy provided to them they are linked with the line ministries for administrative requirements.
Sri Lanka	Sri Lanka's experience with sectoral regulatory agencies suggests that distortionary state intervention and bureaucratic micro-management continue to hamper effective functioning of regulators. The key message emerging out of the Sri Lankan experience is that no institutional arrangement can perform effectively unless the Government is actually willing to delegate regulatory responsibilities to independent agencies.

Box 1: Lessons for India from the Enron fiasco

In India, infrastructure reforms began in 1991-92 with policy initiatives permitting private participation, initially in power and telecom and subsequently in ports, roads and civil aviation. Contrary to well-established practices, regulatory reforms were not a part of the original agenda for sectoral reforms in India. Only when the first wave of privatisation and liberalisation failed to evoke sufficient private interest did the realisation of independent sectoral regulation dawn upon the policy makers.

For example, Enron set up a power plant in India and negotiated a power purchase agreement with the Government that guaranteed outrageously high rates. The deal created a lot of controversy and a spat between the Government and Enron vitiated the entire business environment, particularly in the power sector. Private investors shied away. Such a situation could have been avoided had there been an effective regulator.

With this realisation, independent regulatory bodies have been set up in power, telecom and port sectors. Similarly, regulators have been established for sectors like capital market and insurance.

other approach is 'regulation by contract', where the regulatory agency usually has limited scope since the contract provides for mutual obligations and deliverables for all concerned.

In the 1990s, many regulatory agencies, both in developing and industrialised economies, were set up and existing ones restructured.

The important issue is that in the quest for a robust regulatory framework, both the developed and developing countries are passing through a process of transition and the dynamic process of fine-tuning/adjustment continues in this transition phase. Some important issues are discussed hereunder.

Selection and Appointment

One of the most crucial aspects of the organisational structure of regulatory agencies is that of selection and appointment of the regulator. Persons possessing the required vigour, rigour and knowledge of law and economics are required to make the agencies discharge their duties in the desirable manner. Table 3 captures the practice in various countries.

Functional Autonomy

It is desirable to maintain arms length distance between the regulators and the concerned line ministry to ensure that the latter does not unduly influence the former. In UK, for example, communications between the Ministry and the regulator are carefully regulated and made public

Creating Robust Regulatory Agencies

Once the need for regulatory frameworks became imminent, the focus turned to creation of robust regulatory agencies. Two legal approaches can be discerned that countries follow for creating regulatory agencies. An enabling legislation is the most common, but executive orders have also been used in some cases. The

Table 2: Creating/Restructuring of Regulatory Agencies

Canada	A new legislation was enacted in 1993 to redefine the regulatory framework in the communication and broadcasting sectors.
UK	The erstwhile gas and electricity regulators were merged to create a single regulatory agency and the then Office of Telecommunications was transformed into a broad-based Office of Communications.
Australia	The Australian Competition and Consumer Commission, which is an integrated federal competition and regulatory agency, set up an exclusive agency – National Electricity Regulator – within itself for regulating the energy sector.
Philippines	The telecom regulator set up in 1979 through an executive order was upgraded to a legislated agency in 1995.
Brazil	In 1996, its first independent regulatory agency for the electricity sector was set up.
Sri Lanka	In 1996, the Sri Lankan Telecom Regulatory Agency was established.
India	Regulatory agencies in telecom and electricity sectors were created through the legislative route. However, the provisions regarding regulatory mandate, objectives, independence, etc. vary significantly.

Table 3: Selection and Appointment of Regulators

Country	Telecommunications	Electricity	Urban Water Supply
Australia	Governor General appoints Chairperson and the Deputy Chairperson. Minister is empowered to appoint Associate Members.	Governor General has the power to appoint.	–
Brazil	Expert Committee screens and recommends to the Ministry.	Expert Committee screens and recommends to the Ministry	Expert Committee screens and recommends to the Ministry.
Canada	Cabinet has the power to appoint.	Governor in Council has the power to appoint.	–
South Africa	Chairman and Members appointed by the President based on advise of a Parliamentary Committee and nominations from the public. The Board includes officials from related Ministries.	The Line Minister has the power to appoint.	–
Philippines	The President has the power to appoint.	The President has the power to appoint.	Marine and Wetland Wildlife Sanctuaries board comprises Presidential appointees. The Board appoints the regulators.
UK	Secretary of the State has the power to appoint the Chairman.	Secretary of the State has the power to appoint the Chairman.	Secretary of the State has the power to appoint the Chairman.
India	Appointed by the Central Government represented by the Line Minister. Nomination by search committee comprising government officials (judiciary in some cases).	Appointed by the Central Government represented by the Line Minister. Nomination by search committee comprising government officials (judiciary in some cases).	–
Sri Lanka	The Minister, with the concurrence of the Constitutional Council has the power to appoint.	The Minister, with the concurrence of the Constitutional Council has the power to appoint.	The Minister, with the concurrence of the Constitutional Council has the power to appoint.

Box 2: Lessons for India

- Qualifications for regulators should be mentioned explicitly in the legislation in an unambiguous manner.
- Refrain from appointing retired bureaucrats/judges, who lack the vigour and rigour required.
- Manpower planning should ensure that selection of regulators is made in advance of a position falling vacant.
- Applications should be invited against pre-determined selection criteria.
- Restrictive provisions that deter people from non-government organisations (NGOs) to move to regulatory bodies should be removed and subject experts should be encouraged to join on deputation.
- Attractive salaries and compensation are needed to attract young blood.
- Prior to induction, regulators and staff should be provided training.

so that it is always clear who is taking which position. The new South African telecom regulatory law also explicitly provides for the regulator not to get influenced by the ministry. In Brazil, regulatory legislation does not provide for the ministry to allow it to supersede the decisions of the regulatory agencies. In Philippines, the energy regulator appears to be more independent compared to its counterpart in the telecom sector. Related ministries are not entitled to issue directives to regulator in either case.

Financial Autonomy

Practices in countries relating to funding mechanism for a regulatory body vary as the following would demonstrate:

- Funding being a part of line ministry's budget: The National Energy Regulator of Australia receives its budget as allocated by the ministry.
- Funding from Parliament appropriations, but money allocated as per line minister's discretion: The telecom regulator in South Africa (ICASA) does not enjoy any independence and government allocates budget to ICASA at its discretion.

Box 3: Lessons for India

- Policy directives should be consistent with the objectives of regulatory bodies
- Prior to issuing policy directives a Gazette notification should invite public comments and approval of Parliament should be sought
- Regulatory agencies should be made autonomous by legislation
- Regulatory agencies, being instrumental in realising policy objectives of the Government, should be defended by the concerned Ministry before the Parliament, whenever required.
- The manner of consultation between the Reserve Bank of India (RBI) and the Ministry of Finance (MoF) is a good model where the former holds consultations with the latter on a regular basis without compromising on its autonomy.

- Regulator funded from resources independent of government's budget, but levy/fees, etc. determined by the line ministry: In South Africa, the Financial Services Board is allowed to raise funds through a fee/levy on companies it regulates, but it is the Government that determines the quantum of levy/fee.
- Regulator raises resources through levy, fees, etc. which is either determined by itself or is mentioned in the enabling legislation: The water regulator in Philippines is allowed to raise resources through a levy/cess on the services with prior approval of its Board. In Canada, the regulatory agencies also raise resources through levy/cess. So has been the case with the regulatory agencies in the UK.

Financial autonomy determines the ability to appoint skilled personnel. The Ministry of Energy in South Africa can direct the regulator to use the ministry's staff but the regulatory agencies decide on nature, strength and salaries of their staff. In Australia, the law provides for an exchange of staff between the telecom ministry and the regulator. The UK regulators are also empowered to decide on their staff strength though their salaries are subject to standard civil service scales.

Box 4: Lessons for India

- Budgetary allocations for the regulators should be on the basis of broad heads of expenditure
- Regulatory agencies regulating all the utility sectors should be allowed to cover their expenses through fees, cess, etc

The Government of India prescribes salaries and other terms and conditions of service of regulator's staff. In several cases, the number, nature and categories of staff too is determined with the approval of Federal Government. Regulatory agencies will find it difficult to attract and retain high quality staff unless they are allowed to raise required resources and be given freedom to structure the pay scales to make it attractive for their staff.

Regulatory Accountability

Appropriate mechanisms are required to make independent regulatory agencies accountable. Accountability could be political and legal in form. Political accountability includes submitting reports to legislature, which may have a special committee to scrutinise and debate its contents. Legal accountability enables those aggrieved by a decision to issue a formal complaint or appeal. The following approaches are followed in various countries to make independent regulatory bodies accountable:

- Annual reporting to legislature: In most cases, regulatory bodies are made accountable to legislature through the line minister. Regulator's actions are questioned only when there is an impending crisis or a serious debate in a country. In fact, in most such cases it is the line minister that is questioned and not the

regulator. In Sri Lanka, the minister may ask the commissioners of the multi-utility regulator to appear before the parliament or its sub-committee to clarify matters that might arise from the activity report submitted by the regulator. In UK, the regulatory agencies report to the parliamentary committees on a regular basis and the latter is empowered to scrutinise the former.

- Provision of appeals against orders of regulatory authority, which allows review of regulator's decisions: The judiciary is the common appellate authority but some variations exist. In Australia and UK, appeals lie at the Competition Tribunal.
- Allowing consumer groups to question and participate in regulatory matters: It is needed to empower civil society organisations (CSOs) and consumer groups to work as watchdogs. Energywatch in UK is an independent gas and electricity watchdog. In Zambia, the Energy Regulation Board (ERB) and National Water & Sanitation Council (NWASCO) have agreed to form joint consumer councils or watch groups in three sectors, namely, communications, energy and water.
- Arranging for independent/peer reviews on periodic basis: For example, peer review of competition authorities undertaken by the Organisation for Economic Cooperation and Development (OECD) and United Nations Conference on Trade and Development (UNCTAD).

Consumer Participation

Facilitating public consultation is an important step towards transparent decision-making and this is perhaps the most significant dimension that the regulatory institutions have provided to the consumers. Barring the exception of the water regulator of Philippines, each of the regulatory agencies in project countries organise consultations with the stakeholders and provide opportunity to participate in the regulatory process.

Indian telecom and electricity regulatory agencies have been very effective in this regard. In the electricity sector power purchase agreements signed by the utilities are expected to be made public and debated. The telecom regulator also invites comments from stakeholders and organises open house discussions prior to taking a view on important matters. The regulatory agencies in both sectors are required to invite views from stakeholders prior to even framing various regulations.

Endnote

1 Australia, Brazil, Canada, Philippines, South Africa, Sri Lanka and United Kingdom,

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Some of the most advanced economies have institutional arrangements to fund consumer advocacy. In UK, Government makes budgetary allocations to the watchdog agencies. In Australia, consumer advocacy in electricity sector is funded by the Government in a structured manner wherein a Consumer Advocacy Panel has been set up to provide financial assistance to consumer groups. In India, consumer groups are not given financial assistance, which is a major constraint to their effective participation.

Interface between Sectoral Regulators and Competition Authority

Another challenge in the Indian context is the effective interface between sectoral regulators and competition authority. There are three approaches observed across the selected countries trying to handle this challenge:

- In countries like Brazil, Sri Lanka, and Philippines the powers to address competition concerns are given to the respective sectoral regulators.
- In Canada, South Africa and the UK powers are shared between the regulator and the competition authority. Procedural rules of defining the responsibilities of both the competition authority and the regulator are governed as per the provisions made in the respective legislations.
- In South Africa and Canada, it is handled on formal basis, i.e. it is governed by a Memorandum of Understanding.

Conclusion

There are, therefore, various aspects that need to be considered to make regulatory authorities effective. They are: structure of regulatory framework including single sector vs. multi-sector regulatory agency, designation and powers of regulatory authorities, appointment procedures, financial autonomy, staffing, arbitration of controversies, administrative procedures and role of antitrust authority in competition issues in regulated industries.

The study also reflects the reforms to be made in such aspects of regulatory authorities and need to develop a model for these agencies that should be facilitated with extensive as well intensive research using a variety of stakeholders. Both academia and the CSOs should be included to understand efficient and effective ways to accomplish increased efficiency and accountability in regulatory approaches and frameworks within and across national borders. This would act as a measure to remain prepared to respond to dynamic situations as national needs and the environment for regulations evolve.