

**Lessons from the
18th PURC/World Bank International Training Program in Utility Regulation and Strategy
June 6-17, 2005**

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Teachers learn from their students and students learn from each other. As in the past, the 81 participants in this training course identified the key lessons learned over the intensive two-week period. During the concluding session of the program, they shared their reactions to formal presentations and informal networking. The program, which is held twice annually in Gainesville, Florida, has evolved over the years to keep pace with changing industry conditions, and maturing regulatory commissions. For example, this year, PURC Director Mark Jamison distributed a CD containing nearly 300 pages of a prepared *Body of Knowledge* that surveys fundamental principles, summarizes the literature on regulation, and provides an extensive glossary of terms. In addition, sessions on leadership and organizational design have been expanded in recognition of the role these issues play in complementing technical skills. Professionals need more than technical training; they must also understand how their interactions with others affect overall organizational performance and regulatory oversight.

Twenty-one Lessons Learned

The lessons shared by attendees at the June 2005 course are presented in the order they were suggested rather than according to the topical outline of the course. We hope that the (annotated) list promotes further discussion among all those involved in these important sectors. PURC’s staff appreciates the dedication and energy exhibited by participants in the 18th Training Program.

- 1. Information can level the playing field:** When regulators have difficulties with a company, information sharing across national boundaries is one way to reduce information asymmetries and to develop strategies for dealing with powerful suppliers. A regulatory ruling affects the revenues of suppliers and the pocketbooks of customers. To increase the probability that stakeholders will accept a ruling, the process must be timely, transparent, and viewed as reflecting the legitimate concerns of all parties. A rule-making process involves a number of steps. Ultimately, the decision must be clear, concise and definitive, so all affected parties understand the factors supporting the decision and the weights given to expected performance outcomes.
- 2. We learn through “doing”:** Exercises and cases provide opportunities to apply concepts learned in an educational setting. In addition, the networking with other participants provides a wide range of perspectives on complicated regulatory issues. These principles also apply to continuing education programs at newly established regulatory commissions.
- 3. Leadership requires perspective, initiative, courage, and focus:** Commissioners can make a huge difference in agency effectiveness and sector performance. In addition,

professional staff can be leaders, by engaging stakeholders in an adaptive process that recognizes the sources of change in the sector and helping affected groups confront the key issues.

- 4. Capacity development requires continuing education within regulatory commissions:** Interactive learning involves both the teacher and student in the learning process: joint participation makes the difference. No one has the detailed map for improving sector performance. However, continuing professional development can help staff recognize key signposts and provide them with tools for examining the implications of alternative routes to the destination.
- 5. Internal and external communication represents activities that promote collaboration:** Regulators and managers interact with stakeholders in a variety of settings. The resulting communications range from information requests, conversations with unhappy consumers, reports to the legislature, and press conferences. Each activity conveys a message to groups affected by regulation. If those messages are unclear, the institution will lose credibility with stakeholders.
- 6. Price-cap and multi-year plans can promote efficiency:** Price cap regulation can include price baskets, price cap paths, automatic adjustments, productivity offsets (X-factors), quality of service incentives, and infrastructure expansion targets. Price caps place more risk on investors, but also create stronger incentives for cost containment than cost of service (rate of return on rate base) regulation. Nevertheless, in practice, price caps require the use of rate of return tools for establishing the initial price and for re-setting the price at the end of the plan.
- 7. “Independence” is achieved through experience and many interactions with stakeholders:** Public perceptions of regulatory autonomy affect citizen confidence in the quality of regulatory decisions. Distance from both government ministries and the operator is essential if regulatory decisions are to be based on merit rather than the influence of politically powerful actors. Of course, complete political independence is unrealistic: infrastructure is an important contributor to national growth and access to networks has significant symbolic meaning. In addition, complete independence would be counterproductive, since that would imply a lack of accountability. Nevertheless, the time horizons for infrastructure investments require credible commitments to policies—so regulatory decisions do need to be insulated from day-to-day political considerations.
- 8. We learn from mistakes – by others and by ourselves:** Reviewing the consequences of past regulatory decisions allows us to better understand how past information and analyses affected sector performance. Although telecommunications, energy, and water/wastewater have very different production technologies and opportunities for innovation (and competition), all are network industries, and lessons regarding reform, benchmarking, incentives, universal service obligations, and other issues can be applied across sectors. Good decision-making requires skills in “pattern recognition,” so familiarity with developments in one particular sector can improve policies in others.
- 9. Networking is a valuable activity:** Because lessons can also be applied across countries, working with colleagues in other organizations can strengthen the knowledge base of

regulators. Many regional associations serve as clearinghouses for studies and reports. They give people a chance to expand their professional education. Such interactions provide opportunities to mentor and to learn from others. Similarly, networking within a regulatory agency represents an important source of information.

- 10. Some technical information can clarify issues:** Not everyone needs to be a financial expert familiar with alternative approaches to estimating the cost of capital, but someone does need this set of skills (or have the ability to interact with a consultant on the topic). The same applies to engineering, the law, and other fields. In addition, each specialist needs to appreciate how the different disciplines affect the way infrastructure industries operate and how the general public can be kept informed of sector performance.
- 11. Team-work can be central to organizational success:** No single individual has all the technical skills required for analyzing complex regulatory issues. Teams enable the best regulatory organizations to tap the talents of many specialists. These collaborative efforts bring diverse perspectives together: improving the identification of policy options and the analysis of those options.
- 12. A regulator has limited political power:** A regulatory commission has a specific legal mandate and limited resources: so its “power” must be used carefully and wisely. Fights with the Ministry or with a dominant operator make the agency vulnerable to external threats. Setting realistic goals and collaborating with key stakeholders reduces the likelihood of “unnecessary” conflict.
- 13. Effectively dealing with the media requires preparation, precision, and perspective:** Presenting honest and direct answers that avoid jargon is a first step toward helping reporters grapple with regulatory issues. Spokespersons must be clear about the position of the organization (a regulator wants citizens to understand the role and goal of the agency), then provide specific examples of the impacts of decisions that link directly to the audience. Getting agitated or angry is inappropriate: convey a sense of openness and public purpose.
- 14. Regulation involves more than resolving technical issues:** There may be a danger of over-emphasizing technical issues to the exclusion of broader issues of political economy. The political economy of regulation addresses the role of special interest groups and political power as factors affecting the regulatory system.
- 15. Poverty is a key policy issue that regulators must recognize.** Policymakers need to articulate a vision for poverty alleviation: including broad social justice objectives. However, regulators must implement policy—balancing the concerns of current customers, current suppliers, and current public officials with the concerns of those who lack infrastructure services, those who wish to enter certain lines of business, and those political leaders who may not currently be in power.
- 16. Generalists have a valuable role in the regulatory process:** They can ensure that decisions are based on fundamental principles and reflect “common sense”. Nevertheless, deep expertise is very important: the generalist needs to listen to experts as she ensures that decisions reflect the priorities articulated by policymakers.

- 17. Legal expertise is an important element for regulation to be successful:** Rules and regulations attempt to pay significant attention to procedural fairness. Following the laws applicable to the regulatory process enhances the legitimacy of regulatory decisions.
- 18. Benchmarking is a means of measuring performance against a standard:** Benchmarking can be an important tool for making comparisons and establishing incentives. Performance trends over time and relative performance across comparable firms provide valuable information for establishing targets and rewarding managers.
- 19. Questions are as important as “answers”:** Asking good questions requires that organizations have a broad set of skills: legal, engineering, economic, financial, and managerial. The value of questions is that they remind us that we all have much to learn in the constantly changing infrastructure arena.
- 20. Sector specific learning is important if decisions are to be based on best practice:** infrastructure sectors have many similarities, but trends in technologies and demands differ across sectors. It is important that agencies have substantial expertise in the sector if rules are to reflect reality.
- 21. Technical concepts are required to characterize the complex features of infrastructure:** opportunity costs, financial sustainability, incentives, and rate design are just a few topics that must be understood if regulatory decisions are to promote best practice. Technical issues can be clarified through the sharing of experiences across sectors and countries. Such sharing gives regulators confidence that they have considered a wide range of policy options and applied the best analytic tools in evaluating those options. Nevertheless, the best technical analysis is useless if they regulators lack communication skills.

Concluding Observations from PURC:

Mark Jamison and I were asked to contribute to a survey that attempted to identify the most important topics that cut across sectors and regions. Below are several topics we identified, based on our work with international regulators. The list is included here to spark discussion about these issues.

- 1. Credibility of new regulatory regimes:** Have the commissions been able to create confidence among key stakeholders that the rules are designed to improve sector performance and not to reward politically powerful groups? This means that media leaders and professionals understand the role of regulators in implementing public policy. The design and legal basis for the regulatory agency is one element affecting credibility. Key reasons for establishing regulatory agencies include the need to address opportunistic behavior (by government and operators), to limit the exercise of market power, and to deal with information asymmetries. The design and role of the regulatory agency has a significant impact on the regulator's success in dealing with these issues.
- 2. Financial sustainability of infrastructure suppliers:** Are the public and/or private suppliers able to maintain and operate current assets and to expand systems to meet stated public policy objectives? Capital attraction via legislative appropriations, development banks and private markets remains a crucial issue for electricity and for water/wastewater. Telecommunications seems to have

unique advantages (innovations and consumer willingness to pay) that make capital less an issue for these suppliers. Price level (and structure) and service quality are two important elements to consider here.

3. Mis-priced inputs: To what extent are political and regulatory leaders willing to address the long-term consequences of over- (or under-)utilization of some resources? Telecommunications has spectrum issues, electricity has siting and environmental issues, and water has water resource management problems. In addition, for public firms, the cost of capital may be too low (or too high in some cases). Unique events in a particular region (such as currency devaluation) may trigger capital market responses that result in generalized increases in the cost of capital, when the "true" risks are much more nation-specific. Regulation also affects the cost of capital: price/revenue caps, rate of return, and methodologies used to estimate the cost of capital vary across sectors, but the fundamental need to attract capital so that service can expand and improve is crucial in all sectors. Finally, if there are poor incentives for managers, there will be inappropriate payments to this key input of the regulated firm (leading to poor sector performance).

4. Growth and infrastructure: What is the relationship between infrastructure and national growth? Some analysts seem to make a supply-push argument, with infrastructure being a catalyst for growth. Others emphasize the demand for services (consumer valuations) as the key driver for network expansion. We need a better understanding of the factors driving development. Perhaps the institutional elements most conducive to growth also are the ones that promote investments in infrastructure (longer time horizons for decision-makers and citizen confidence in the economic system).

5. Division of labor among various stakeholders: What are the legitimate roles for the legislative, judicial, and executive branches of government, sector regulators, infrastructure suppliers, local and international NGOs, the press, consumer advocates, and academia in developing, implementing, and evaluating infrastructure sector performance? In emerging markets, a number of stakeholders vie for power. Promoting a serious national discussion on infrastructure policy and sector performance requires that these stakeholders be brought together to identify the ways each can contribute to improving performance, while avoiding self-serving rent-seeking. Ultimately, leadership needs to emerge from several of these groups if infrastructure is to become a high priority for emerging markets.

6. Leadership in regulation: How can people with significant responsibility be equipped to provide leadership? The regulator is in a precarious position: On the one hand, independence decreases the political power of otherwise powerful players and regulators only have limited authority. On the other hand, the regulator is a key player in the infrastructure sector and her role cannot be marginalized. The practice of regulation affects policy even if the regulator is to have no formal policy role. Regulators need adaptive leadership skills if they are to thrive in this system.

7. Efficient pricing, including for services to the poor: To what extent can prices be consistent with what one would expect to observe in a well-functioning competitive market? Poor regulatory policies lead to operators making decisions that lower consumer welfare and customers making inefficient purchasing decisions. In addition, the economy does not grow to its potential, and the preferred market structure may be difficult to maintain. Finally, developing targeted subsidies for groups that would otherwise be un-served is important for social cohesion.

8. Identifying efficient market structures: How can those developing and implementing infrastructure policy create market structures that promote cost containment, service quality improvement, and the introduction of valued new products? Operators make strategic decisions based on their perceptions of how potential rivals, government, and customers will respond. This is important for market design (e.g., electricity), bidding for contracts (e.g., water concessions or management contracts), and innovation (e.g., telecoms). Good sector performance involves value creation. Ultimately, policymakers need to direct managerial effort toward expanding the pie—the scope of services and customers-- rather than to increasing the share of a fixed amount going to a stakeholder: zero sum games can promote behavior that dissipates value.