REGULATION AS AN ARENA FOR SOCIAL POLICY
EXAMPLES FROM ELECTRICITY IN ASIA

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Abstract: Across the developing world, the notion of public utilities as social services is giving way new forms of economic organization around liberalized and commercialized sectors. Independent regulators are central to these new economic governance arrangements, which are intended to insulate utilities from government interference. By looking at the electricity sector in Asia, this paper explores the role of independent regulators as potential new arenas for social policy. I argue that with the re-organization of essential services around economic arguments, regulators will become increasingly important as a site for articulation of social concerns. I also suggest that the governance characteristics of regulatory agencies will be critical to articulation of social policy concerns in essential service sectors such as electricity or water. This paper examines the genesis of regulation in Asia, the institutional and governance structure of emergent regulatory bodies, and the available evidence on use of regulators as an instrument of social policy. Based on this analysis, the paper concludes that regulatory bodies are an important new site for political contest over social policy. Since these institutions are new, there is a small window of opportunity to shape their mandate and their institutional culture to be open to social policy concerns.

Keywords: social policy, regulation, electricity, Asia

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Introduction

During the 1990s, there has been a far reaching shift in policy thinking around provision of basic services. In addition to changes in institutional arrangements, ownership patterns, and funding patterns, there is a growing trend toward treating services such as electricity and water as commodities rather than as public services to be provided by the state. Advocates of an approach focused on economic efficiency and commercial discipline have not, however, been able to wish away social externalities associated with provision of these services, nor the perception that provision of these services is a state role. The latter point is important because these perceptions imbue debates over services with considerable political freight. While the turn toward a measure of commercial discipline is no doubt necessary – utility sectors in much of the developing world are inefficient and fail to provide adequate service to their consumers – it leaves the question of how social policy related to basic services should be accommodated.

In this paper I examine whether and how emergent utility regulatory agencies are a suitable site for articulation and debate over social policy, with a focus on the electricity sector. Independent regulation has emerged as a key component of a globally applied standard model for reform and restructuring in electricity. Regulators are intended to insulate the sector from political interference, thereby sending a signal about credible governance to reassure potential investors. In other words, as currently conceived, regulation serves an entirely economic function. However, both because of political pressures and features of institutional design, regulators carry within them the seeds of a larger mandate as institutional spaces for democratic debate over social policy. As such, they hold the promise of an arena for effective reconciliation of social, political and economic pressures that currently hamstring effective operation. In this paper, I explore the role of regulation as an arena for social policy using preliminary empirical material on electricity regulators from India, Philippines, Thailand and Indonesia.

The argument proceeds in three parts, with one section of the paper devoted to each part. First, I examine the intellectual currents within electricity reform over the course of the 1990s to illuminate the emergence of a unitary electricity reform model driven by economic considerations, to locate the expected role of a regulator and to note the submergence of social considerations in this process. I complement this section with thumbnail sketches of specific
reform trajectories in the four case countries. Second, I survey the theoretical literature on regulation, with particular attention to the UK experience, as the benchmark of electricity reform processes. In this survey, my aim is to show the progression of regulation from its original conception as an instrument of the public interest, to its gradual migration toward a more instrumentally economic institution, and the recent trend toward both diversity in objective and pluralism in approach – a stakeholder model of regulation. These two sections set the stage for a discussion of some preliminary empirical material on electricity regulators in Asia. While the material does not allow me to examine specific instances of deployment of regulators for social policy, it does allow me to scrutinize whether and how regulatory process in these countries is likely to accommodate concerns of social policy. The final section offers some concluding observations.

From Social Compact to Disembedded Electricity: The Orphaning of Social Policy

Until the 1990s, in most of the world, state owned and vertically integrated utilities were charged with providing electricity in the public interest. Public ownership was considered necessary not only because of two “natural monopoly” characteristics of electricity (Teplitz-Sembitzky 1990; Hunt and Shuttleworth 1996) -- bigger generating stations were cheaper, and it made no sense to have competing electricity grids -- but also because electricity was considered an essential public service to be provided by the state. Public ownership allowed electricity to be used as an instrument of social and industrial policy; electricity access and prices were controlled to stimulate industrial development, agricultural growth and rural electrification. In some cases, notably the US, utilities were privately owned by state regulated under a regulatory bargain -- private utilities were allowed a stable profit and a monopoly in return for fulfilling social obligations. Whether under public ownership or in the few cases of private ownership, electricity was a potent symbol of what the state could do for the citizen, and, in turn, electricity became an instrument of state legitimacy. In short, electricity was an important part of a broader “social compact” between state and society (World Bank 1988).

This social compact was largely fulfilled in the industrialized north. Electricity was reliable, plentiful, and reasonably cheap. It was largely unfulfilled in the developing south, were electricity coverage remains scant, electricity is unreliable, and often more costly in absolute
terms than in industrialized countries. But it was in the north that the first cracks appeared in the social compact around electricity.

Electricity demand began tapering off in the industrialized world, undermining the predictable revenue stream on which utilities depended (Rosenzweig and Voll 1997) even as costs and risks rose, in part due to dubious technology choices such as in nuclear power (Patterson 1999). New turbine generation technology reversed long-standing economies of scale around which the sector was organized (Hunt and Shuttleworth 1996), and new information technology developments made possible decentralized control of the complex electricity machinery (Graham and Marvin 1995).

Because of these factors, in the U.S. costs began to rise, public distrust of utilities began to grow, and the long-standing utility consensus, which internalized a social compact around electricity began to fracture (Hirsh 1999). In 1978, new legislation allowed the entry of private generators or “independent power producers” undermining the natural monopoly organization of the sector. The radical UK electricity restructuring went even further, driven largely by Thacherite ideology combined with a desire to break the back of coal miners’ union (Bacon 1995). In 1990, the UK unbundled and privatized public utilities, creating private players and a “power pool” into which generators bid electricity for sale. The UK experiment represented a bold step into the unknown, since there was no real prior experience with markets for electricity (Newbery and Green 1996; Al-Sunaidy and Green 2005).¹ The UK experience, in particular, rapidly became the global benchmark.

In both these cases, and particularly in the UK, reforms were motivated by squeezing additional efficiency gains out of an essentially well functioning system. The emphasis was on making competition work in electricity. As the market worked its magic by driving down prices and improving service, social issues, it was assumed, would cease to require explicit attention by either regulators or governments. This assumption proved problematic. As I will discuss later, however, the UK regulator has increasingly had to intervene both to steer the market toward better functioning and to explicitly address social issues.

¹ Other notable experiments were those of Chile, perhaps the first competition oriented electricity reform, but one that did not go as far as the UK (Pollitt 2004) and Norway, which was unique for introducing competition without the step of privatizing public utilities (Midttun and Thomas 1998).
The assumption that the standard model of electricity reform – loosely based on the UK experience – would obviate the need for explicit attention to social issues was even more problematic in the developing south. First, standard model electricity restructuring said nothing about how to address some key social problems in the developing world, and potentially made others worse. Providing access to electricity to the estimated 56% of the world’s population without electricity (World Energy Assessment 2000, p. 374) is a good example of an issue that restructuring is silent on. Indeed, by diverting scarce intellectual capacity and political attention, restructuring potentially worsened the problem.\(^2\) Other concerns, such as equity could also potentially be deepened through a doctrinaire application of economic principles associated with restructuring. For example, economic logic would lead to a reduction in prices for the wealthy and profitable and an increase for the poor and less or un-profitable.\(^3\) Second, there was a strong, but untested, presumption that a model designed for essentially well functioning systems in the north would also work well as a solution to quite different problems in the south: public debt in Latin America and South-East Asia, capacity shortfalls in Asia, low levels of access to electricity in Africa and South Asia, and crumbling facilities and mis-management in many countries (Dubash 2002; Williams and Ghanadan 2005; Williams and Dubash 2004; Karekezi and Kimani 2002).\(^4\)

In many developing countries, the social compact around electricity was unfulfilled. As the World Bank’s landmark 1993 Electricity Policy Paper diagnosed the situation: “Opaque command and control management of the sector, poorly defined objectives, government interference in daily affairs, and a lack of financial autonomy have affected productive efficiency and institutional performance” (World Bank 1993, p. 12). The Bank’s proposed was: transparent regulation; commercialization and corporatization; encouragement of private investors; and importation of service in some of the least developed countries. This fix was backed by a policy of “commitment lending”: only countries that followed these principles would receive Bank funds.

\(^2\) There is evidence that this has indeed happened, such as in the state of Orissa in India (Dubash 2002).
\(^3\) Application of such measures led to political unrest in Argentina (Bouille, Dubrovsky, and Maurer 2002) and was a political bone of contention during reform debates in Thailand (Greacen and Greacen 2004).
\(^4\) This point is lent additional force by the growing questioning of whether the standard model is delivering the intended benefits in the countries for which it was designed (Woo et al. 2005; Blauvelt 2004; Costello 2003; Lave, Apt, and Blumsack 2004; Van Doren and Taylor 2004).
The rapid adoption of electricity restructuring had much to do with this message that international finance for fixing public power had run out, combined with the growing availability during the 1990s of private investment in power, but only for liberalizing countries. The availability of a global ideology around electricity restructuring provided a neat, if untested, road-map for countries willing to re-make their electricity sector around the new model and seek private financing with World Bank support.

For the purpose of this paper, there are three important things to note about this rapid turn around in conventional wisdom on electricity. First, under the logic of a restructured electricity sector, not only are social concerns entirely displaced in favour of a commercial orientation for the sector – electricity is a business like any other – but from being a legitimate goal of electricity provision, social issues are now the problem diagnosis. There is some basis for this argument. Frequently, social protection for vulnerable groups has become a cover for political opportunism and graft in electricity. However, the solution is surely to strive for better mechanisms to internalize social concerns in electricity. The doctrinaire approach of electricity restructuring risks throwing the baby out with the bathwater.

Second, social concerns are explicitly proscribed as a relevant arena for regulatory agencies. Indeed, the very rationale for independent regulators is to provide insulation from both power suppliers and government. Without this insulation, private investors would have no confidence in the ability of the sector to generate a profit, and the entire restructuring logic organized around attracting investment would unravel. Instead, social concerns are to be passed back to elected governments acting as policy-makers, as distinct from independent agencies acting as regulators. In practice, the line between policy and regulation is not so clear. Nor is it so obvious that various social, and for that matter environmental, concerns are not embedded in economic regulation. I return to these issues later in the paper.

Third, the restructuring approach frames regulatory bodies as strictly economic institutions, but ironically does so for an underlying political reason – to insulate the sector from political interference. But these political pressures do not go away, they often apply in different and potentially crippling ways on nascent regulatory bodies.
The four country snapshots illuminate the tensions created in shifting from a social compact to socially disembedded electricity, describe the political context within which regulatory agencies have been formed, and the political pressures they are likely to face.

*India*\(^5\)

From independence until 1970s, India exemplified the social compact around electricity. During this period, the country achieved reasonable if not spectacular gains in rural electrification, and reasonable rates of growth in electricity generation. Electricity was also arguably well used as a mechanism of development policy, as state-led electricity was used to support large industry and powered irrigation for an agricultural green revolution.

However, the origin of recent debates over electricity restructuring in India occur against a backdrop of increasingly financially insolvent State Electricity Boards – the main state level utilities. Many observers of the Indian scene trace the problem back to the late 1970s, when farmers were given free power or power at a flat rate, unlinked to consumption, in an exercise of political opportunism. Over time, as farmers got rid of their now unnecessary meters, over 50% of India’s electricity became unaccounted for. Not all of this is used by farmers; the lack of accountability has led to theft by all sectors. In addition, agrarian populism was financed by raising tariffs for industrial consumers. As industrial prices have soared, many industrial users have chosen to set up their own electricity generation, leaving the burden on a shrinking base of users, and increasingly displacing the burden onto the state budget.

The political tensions within the sector are enormous. Farmers seek to hang on to cheap power, industrialists seek lower tariffs, and state governments are desperately trying to protect their budgets. These tensions continue in the present. Electricity tariffs for agriculture became an important political pawn in the 2004 national elections as they have to varying degrees in elections over the past quarter century. This is the context within which newly created state electricity regulators are placed, and a major component of the delicate balancing act between economic and social objectives that regulators are intended to perform.

When regulation is established in the crucible of privatization and associated institutional changes, they face enormous pressures to take decisions supportive of the larger privatization

\(^5\) The discussion in this section draws on (Dubash and Chella Rajan 2000; Dubash 2005).
effort. Ironically, these pressures have come from precisely those – donors and government officials – who promote regulators as an apolitical decision making sphere as part of a larger turn toward a commercially oriented sector. The experience of the first state to go down the restructuring and regulation route, Orissa, is illustrative of the myth of apolitical regulation.

In 1995, Orissa undertook a process of unbundling and privatization of its state electricity board, nudged along by the World Bank, which invoked its 1993 policy of “commitment lending.” The World Bank and the then UK Overseas Development Administration also played a major role in technical assistance for establishment of the regulatory body. In the early years, regulators had to work in an information vacuum due to a past history of ineffectual management systems. They took tariff decisions that placed more of the burden of incomplete information on the utilities, to give them an incentive to remedy this situation, than on consumers. However, this decision was inconsistent with the financial assumptions of the privatization designers, and threatened to undercut the success of the privatization. As a result, supposedly apolitical regulators came under enormous pressure to revise upward their tariffs, ironically from those donors and national reform advocates who had sought their creation.

The limits of regulators as technocratic vessels to contain political and social forces was exposed in the summer of 2005 by a pitched battle over tariff hikes in favour of Delhi’s recently privatized electricity utilities. Consumers were irked by the regulator’s decision to award a tariff hike despite their perception that performance had not gone up commensurately. The state government sought to wash their hands of the decision, stating that the issue was between consumers, the private utilities and the regulators. However, as pressures and protests began to mount, it quickly became clear that from a consumer perspective, the government remained ultimately accountable for the state of electricity. Bowing to pressure, the state government announced that consumers would not, after all, face higher prices, and that government and the utilities would between them pick up the cost of the tariff hike.

In a final example, the Electricity Act 2003, places on regulators a highly consequential political decision that could authorize or deny vast profits, and support or undermine vote banks. The Act calls for “open access” to state-owned transmission lines, on payment of a surcharge.

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6 Drawing from this lesson, reform advocates including World Bank consultants subsequently sought to build in an advance multi-year tariff regime into the privatization program for another state, effectively short circuiting regulatory authority.
Open access effectively allows industry to leave the grid and escape its historical role of subsidizing other consumer classes. The magnitude of that surcharge, and the methodology for its computation, is left to state regulators. If the surcharge is too high, no industry will avail of open access, and will lose the opportunity for considerable financial gains. If too low, then industries will leave in droves, exposing households and agriculturalists to the choice between far higher tariffs as the subsidy is withdrawn, or ever lower quality power produced by ever more unviable utilities.

The Indian experience shows that regulation has failed to drive a wedge between economic and political content of electricity decisions. It also shows that a range of social concerns do drive political action in the sector and, the fraught history of internalizing social issues into electricity notwithstanding, social concerns about electricity, and particularly tariffs, remain central to how the sector is organized and run. These concerns, whether directly or indirectly, sit squarely on the regulators’ shoulders.

Philippines

The reform experience in the Philippines follows what emerges as a South East Asian pattern toward electricity reforms. In brief, chronic electricity shortage in the early 1990s led to liberalization of investment for generation, which in turn led to reckless investment and over-capacity exacerbated by the Asian crisis. It was under these trying post-crisis circumstances that an omnibus electricity reform law was debated, and in the case of the Philippines, actually passed in 1991.

As in other Asian countries, the terms under which independent power producers (IPPs) entered the country have been hotly debated. The contracts placed fuel price risks on consumers in the form of fuel adjustment clauses, and also placed exchange rate risk on the consumer. There were suspicions that politicians at the highest level had a personal interest in these contracts, either through a direct stake or through lucrative consultancies and other side deals. Following the Asian financial crisis, when many of these contracts placed an enormous burden on the country, IPP deals were subject to a review and potential re-negotiation. This was a departure from the Thai approach, where adjustments were made to insulate investors from the fall-out of the crisis. However, the extent to which some of the burden of adjustment will be shifted to
investors remains uncertain, since the review has been cloaked in secrecy, and other reports suggesting that the government will simply buy out investors, thereby shifting the liability back to public hands.

In the meantime, debate over a more fundamental restructuring of the Philippine electricity sector continued through the 1990s, where reforms were proposed as a solution to a financially weak National Power Corporation. A forceful World Bank report in late 1994 advocated full unbundling and privatization of the state utility. Following the Asia crisis, an Asian Development Bank loan made electricity reform a central condition. By all accounts, this donor pressure to reform was intense. By 1991, the ambitious Electric Power Industry Reform Act (EPIRA) promised to unbundled, privatize, establish competition for power in stages, and establish a new electricity regulator to replace the existing body. In conformance with the global model, the law also required all cross subsidies to be removed, so that electricity prices would reflect the true cost of serving different classes, which would inevitably leading to higher prices for the poorest. In reflection of this fact, the reform builds in various social pricing mechanisms to ease the burden on the poor.

The Electricity Regulatory Commission is the institutional fulcrum of this new industry framework. It is responsible for encouraging market development and promoting competition, and determining all matters relating to electricity costs and prices. These are challenging tasks subject to enormous political pressures. For example, in its monopoly control mode, it will face powerful and politically connected utilities such as Meralco, which provides power to Manila and many other regions. The recent past of the sector suggests that the political reach of these utilities is considerable. For example, directors of Meralco are also on the boards of several electricity generating companies, raising the potential for cross-dealing and collusion. The regulator will also be required to assess complex economic factors with real social implications, such as tariffs and accompanying social protections.

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7 This section draws on (Pilapil and Velasco 2004; Sharma, Madamba, and Chan 2004).
Thailand

The complex story of reform in Thailand has at least three themes of relevance to this paper: the emergence of IPPs, tariff setting, and the close links between the government and the monopoly utility, EGAT.

The precursor to the electricity reform efforts of the 1990s occurred during the 1980s. As the dynamo behind Thailand’s dramatic economic expansion, the state utility EGAT acquired tremendous political power during Thailand’s growth boom. The first signs of trouble, and the first attempt at reform, came in the early 1980s, when EGAT’s inflated debt situation – the energy sector accounted for between 30 and 56% of all foreign loans in the late sixties to mid-seventies – contributed to a macroeconomic crisis and an IMF and World Bank bailout. The debate over electricity reform then, which focused on privatization and elimination of a national policy on uniform tariffs, echoed what followed over a decade later. While this attempt to dramatically revamp the sector failed, the seeds had been planted.

The 1990s saw another build up in debt, as EGAT struggled to meet skyrocketing demands for power to fuel Thailand’s rapid growth. However, this time debtors included several Independent Power Producers (IPPs), created under a new law to boost electricity generation. After the Asian financial crisis, these IPPs were left with surplus power. In reaction, the government adjusted the power purchase agreements signed with EGAT so that capacity payments were indexed to dollars rather than the weakened bath, provoking an outcry from critics that the adjustment placed far too much burden on the consumer and insulated investors. This is perhaps unsurprising since many IPP owners are also highly connected. For example, a former Prime Minister is chair of the parent company of one of the largest IPPs. For the regulator to ensure that problematic and unconsidered IPP deals do not plague consumers well into the future will require them to challenge deeply entrenched and politically connected interests.

In the late 1990s, Thailand took steps toward full realization of the restructuring model, including full privatization of EGAT and introduction of a “power pool” as in the UK. As part of this effort, the reform consultants proposed to shift from a uniform national tariff – a potent symbol of electricity as social service – and replace it with economic pricing. This proposal was

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8 This section is based on (Greacen and Greacen 2004).
highly controversial, and points to another highly politically contentious area – balancing social and economic interests in tariff setting – with which that a Thai regulator will have to grapple.

Unlike in the other countries examined here, a change in government in Thailand in 2001 also led to a dramatic shift in the trajectory of Thai electricity reforms. The new Prime Minister abandoned any ideas of competition, and developed the idea of a government-led privatization, where EGAT would benefit from the infusion of private capital but still be under government control.

There are at least two problems with this vision. First, the experience of privatization of the Petroleum Authority of Thailand (PTT) hints at the prospect of considerable problems of governance associated with this form of privatization. While the government targeted first time and small investors, in reality many shares were reserved for favoured elites. Thus a close relative of the overseeing minister was reported to have obtained 22 times the share limit for private investors. Subsequently share prices rose steeply on news that the government had approved a large expansion project with a guaranteed return to PTT. For a regulator to effectively tame massive public corporations in which the economic elite have a strong interest will be an uphill task.

Second, the Prime Minister explicitly visualized a privatized and cash-flush, but government controlled EGAT as a “national champion” and instrument of state policy. The government and its consultants argued that a strong regulator would prevent EGAT from abusing its dominant position in the sector by, for example, using its position on both generation and distribution ends to underbid competing IPPs and passing on the higher costs to customers. However, the Prime Minister’s “national champion” vision necessarily requires strong state control over EGAT, and it is unlikely that a regulator would be allowed to interfere with these plans. Indeed, at one point the government had forged ahead with plans to privatize EGAT, even though a regulator was not in place. At the moment, the Thai sector is poised on the threshold of privatizing EGAT and creating an interim regulator. The underlying political tensions – a government controlled agency run by an unabashedly nationalist government, but one that talks the talk of commercial discipline – remain unresolved. A new regulator will likely face an uphill task in managing this tension.
Indonesia’s electricity sector has long been dominated by a single major utility, PLN. In what is now a familiar pattern, the 1990s saw erosion of PLN’s monopoly with the entry of substantial IPPs, including the infamous Paiton power, arguably the most controversial in Asia. These agreements were based on unsolicited bids, contractual terms that favoured investors, and driven by private developers with close connections to President Suharto and his family. Perhaps even more than other Asian countries, the level of corruption was immense. With rampant IPP contracts, the problem of overcapacity was inevitable.

With the Asian financial crisis, the currency lost 80% of its value in four months. As revenues plummeted with shrinking demand (especially in dollar terms) even as costs soared due to dollar denominated debt and take or pay electricity contracts, PLN rapidly went bankrupt. Given its overall importance to the Indonesian economy, restructuring of PLN and the electricity sector was a critical component of the bail-out package negotiated with the IMF. In a familiar prescription, the reform program including unbundling of PLN, introduction of competition a cost recovery orientation, expansion of private sector participation and establishment of a regulatory framework.

Political controversies over tariff increases for consumers were the biggest stumbling block to implementation of the reforms. While there was some support for rationalization of tariffs, there were also popular protests which accompanied the progress of an electricity reform law through Parliament. Other participant in the debate focused on the implementation of various social protection provisions to safeguard the interests of the vulnerable. An important point of debate was equity across the various islands in Indonesia’s vast archipelago.

In 2002 a reform law was finally passed, only to be struck down as unconstitutional in December 2004 by the Indonesian Supreme Court. The basis for this decision was a perception that the market orientation of the electricity sector under the law was incompatible with Constitutional provisions requiring the government to assume responsibility for meeting basic needs of citizens, including electricity. At the moment, therefore, no electricity regulator, and indeed, no reform law, is in place in Indonesia. The debate over the last decade demonstrates

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9 This section draws on (Seymour and Sari 2002; Sharma forthcoming 2005).
amply, however, the challenge to any future regulator in balancing commercial and social interests, further complicated by a sector tainted by the stain of rampant corruption.

In sum, electricity regulators in Asia is emerging in the context of potent political forces, all of which they will have to grapple with and manage. At minimum, these include strong and mobilized political interests, whether farmers in India or labour in Indonesia, a track record of self-dealing by the elite and corruption in the sector, a history of fraught political discord over tariff setting, and strong, politically connected utilities that are intermeshed with national political agendas.

**Regulation: Genesis, Limits and Evolution**

As the four country snapshots should make clear, electricity reform and accompany electricity regulation was introduced in many Asian countries in response to financial stresses in state utilities, often tied to larger national financial crises. Reforms were meant to de-link governments from direct control over the electricity sector in order to avoid economically unwise future decisions. Privatization was the instrument of this de-linking, but independent regulation was the essential step without which private capital would refuse to enter.

A large and deep literature on international theories of and experience with regulation suggests that this view of regulation as a buffer against government is both unrealistic and limited. Indeed, it is not clear that the designers of regulatory systems, almost always expatriate consultants, were familiar with these broader debates (those beyond the economic theory of regulation) or had thought through the implications of a simple institutional transplant from north to south. In this section, I briefly review some main themes in the regulation literature to illustrate how knowledge of this literature could inform and enhance the prospects of Asian electricity regulation.

The roots of modern regulation are often traced back to a landmark case in the US which established the right of state legislatures to regulate in the public interest, even at the expense of private business. In Munn vs. Illinois, the US Supreme court ruled that the Illinois state assembly could fix by law the maximum price for freight and storage of grain by railroads because "…property does become clothed with a public interest when used in a manner to make it of public consequence, and affect the community at large. When, therefore, one devotes his
property to a use in which the public has an interest, he, in effect, grants to the public an interest in that use, and must submit to be controlled by the public for the common good" (Touro Law Centre 1876).

Much of the subsequent literature on regulation accepts this public interest motivation of regulation, but worries about the feasibility of controlling business in the public interest through specialized regulatory agencies. In particular, the literature is focused on the challenge of maintaining regulatory independence. In his sweeping and elegant survey of regulation on both sides of the Atlantic, Moran (2002) identifies three strains of argument about the feasibility of ensuring the public interest through regulation. The first, pluralist, strain emphasizes the contingent nature of regulation, which views capture as a function of the costs of mobilization and distribution of benefits of regulation, as well as broader factors such as national political environments. A second, Marxist inspired stream, sees regulation as a way in which business interests capture public power to serve their own ends. Perhaps best known, the economic theory of regulatory capture most closely associated with Stigler (1971) suggests that the emergence of regulation itself could be predicted based on the strategic pursuit of interests by rational actors in the political marketplace. Rather than being in the public interest, regulation serves politicians, powerful interests, and powerful bureaucrats.

Subsequent work has provided a respite from the somewhat bleak conclusions of the various capture perspectives by developing a more complex picture of the regulatory process. Following Prosser (1999), if regulation is conceptualized more broadly than a bilateral relationship between regulator and regulated, to admit of the possibility of multiple and uncoordinated industry actors, and a broader set of legitimate interests such as consumers, then the crispness of the regulatory capture conclusions is hard to sustain. Within this broader conceptualization of a “regulatory space” there is still the potential of capture through the operation of a political marketplace, but it is not inevitable and indeed, is likely to occur under a far more limited set of circumstances.

Moreover, the capture perspective (and particularly the Stigler variety) presumes wealth maximization is the only motivator for political behaviour. If, however, as Prosser (1999) argues, “prestige, an easy life and even public service are well documented sociologically as part of political life” then it opens the doors to a far more open-ended perspective on regulation, one that
draws on the early pluralist view of regulation that internalizes factors such as political environment and culture.

Attention to political environment and culture in a developing country context quickly raise the possibility of public, rather than private, capture of regulators. Recall, for example, the enmeshing of electricity decision making and the interests of economic elites in the four case countries described earlier. As “public choice” theorists argue, regulation may be shaped to further the interests of the political elite and to preserve their power (Cook et al. 2004). This is a very real concern, and there is surprisingly little written about how the broader political environment in developing countries shapes regulation, particularly in the crucial moments of institutional change when entire sectors are being re-shaped, as has happened to electricity in the 1990s.

It is this concern with political capture that leads public choice theorists to advocate privatization of state-owned enterprises, including in electricity. The corollary is that governments need to simultaneously introduce regulation as a credibility enhancing device to provide comfort to potential investors (Jordana and Levi-Faur 2004). However, as Parker and Kirkpatrick (2004) point out, the same politicians and bureaucrats engaged in political capture will be charged with establishing and running a credible regulatory body. This argument goes to the heart of the likely vulnerability of new electricity regulators. Established as bodies intended to insulate the sector from government, they are nonetheless unavoidably creatures of the broader political environment within which they are embedded.

In this connection, Moran (2002) makes the interesting and salient observation that several decades of regulatory study, particularly in the US, have highlighted the failure of regulatory modes of command that rely on the formal authority of the law. But it is precisely this form of institution – administrative, law-backed specialized agencies – that are proposed as the solution to the failures of command through public ownership, and indeed as a form of winning legitimacy in places such as the UK and the EU. This legitimacy is presumed to derive from technical expertise, another well-worn theme in regulatory studies (Jordana and Levi-Faur 2004). Developing countries appear to have borrowed this easy optimism about the efficacy of the regulatory fix. In practice, however, the complexity and challenge of the regulatory task have intruded upon this optimistic vision, forcing engagement with the more complex lessons that
emerge from many decades of US regulation. It is worth following in some detail the case of the UK experience, because the UK experience has been the prototype for many developing countries in the electricity sector.

The starting point for utility regulation in the UK can be found in reports written by Stephen Littlechild, later to become the first electricity regulator (cited in Prosser 2004). Regulation, it was held, could be and had to be predictable and limit discretionary assessments. On the key price setting role, these influential reports proposed a price formula linked to the retail price index. This approach was intended to eliminate all the doubts regarding regulatory legitimacy, the scope for capture and so on that dogged past experience.

In practice, the application of the price setting formula has been far from automatic, and has in several cases required modulating the result of the formula by reference to an acceptable rate of return on assets (Thomas 2005; Prosser 2004). This, in turn, requires scrutiny of the internal functioning of utilities, which injects considerable scope for discretionary judgement, forcing a convergence to precisely the American approach that Littlechild sought to avoid.

A second tenet was that regulation was but a way station on the road to competition. In fact, the introduction of competition has, if anything, expanded rather than diminished the regulatory task. The UK regulator has had to intervene on several occasions to reduce market power and a tendency toward monopoly, including by deliberately tipping the playing field toward new entrants or breaking apart existing entities (Thomas 2005). Needless to say, these are politically charged and highly discretionary decisions. Moreover, they are decisions with enormous social import. Tariff decisions and the extent of monopoly power substantial drive the terms on which citizens access power. The early years of the UK experience quickly put paid to visions of regulatory legitimacy driven by technical expertise and its impartial application.

In addition, UK regulation has been forced to explicitly grapple with social issues in the regulatory process. While consumer protection was always part of regulatory duties, the Utilities Act 2000 elevated it to the primary duty of regulators, included the responsibility to take into account the interests of low income groups, and provided for future government guidance on other social and environmental issues (Prosser 2005; Owen 2004). Thus framed, regulators inevitably became a part, and an important one, for both conceptualization and negotiation of trade-offs between different ends. Moreover, social and environmental implications are
embedded in many economic regulatory decisions. For example, the details of regulatory price setting can have incentives and disincentives for end-use energy efficiency programs (Dubash 2004). As Prosser (1999, p. 200) puts it, “no single logic can or should form a basis for their [regulators’] decision making and they should not be seen as capable of implementing a mandate of simply applying government issued guidance.”

So far I have argued that regulation is much more than the technocratic application of rules, involves multiple interests, and the exercise of regulatory discretion. If so, then rather than the bilateral contract perspective that motivates capture theory, regulation is more accurately viewed as a process through which regulators consider stakeholder interests (Prosser 2005). From this perspective, regulatory legitimacy lies in wide participation in decision making rather than in technical expertise (Prosser 1999; Hira, Huxtable, and Leger 2005). The underlying idea is that if there is a single optimum regulatory answer to a given situation, it is most likely to emerge through the open, informed deliberation of various possible answers through a structured process (Stewart 1975) an approach that Palast et. al. (2003) view as the lynchpin of the American electricity regulatory process.

While a technocratic view of regulation places the emphasis on the regulatory solution, a stakeholder view of regulation emphases the regulatory process. Specifically, the integrity of the regulatory process needs to be safeguarded by carefully developed procedures, such as access to information, open hearings, a requirement of reasoned orders and so on, that help ensure democratic legitimacy. This stakeholder perspective on regulation backed by procedural integrity has recently gained popularity and taken root under the broad label of effective regulatory governance. Various efforts to elaborate concepts and criteria for measurement of regulatory governance focus on measures of accountability and transparency (Lodge 2004), institutional means to facilitate participation in regulatory decision making (Hira, Huxtable, and Leger 2005) and metrics to examine regulatory governance from the perspective of providing security to private investors (Stern and Cubbin 2005). Examples of the conceptual literature include work on the role of “policy transfer” in setting up regulatory bodies and particularly mechanisms of regulatory governance in the developing world (Minogue 1998), the role of non-legal, normative factors in regulatory governance (Scott 2004), and broader explorations for the rise of the regulatory state in an “age of governance” (Jordana and Levi-Faur 2004).
I suggest this stakeholder-based procedural view of regulatory governance is a fruitful way to understand electricity regulation in Asia, and is also a normative benchmark for a regulatory process that is capable of considering social policy. The discussion of electricity reform in Asia above makes clear that the risk of political capture is high, the social stakes are considerable, and the regulatory task complex, multi-faceted and deeply political. A procedurally sound stakeholder model of regulation, if fully implemented, offers the potential for checks against political capture, a forum for reconciling social and economic considerations in electricity provision, and the potential for preservation of regulatory credibility through open, transparent, reasoned and deliberative process. The following section outlines a framework to scrutinize progress toward a stakeholder view of regulatory practice, and some preliminary empirical results.

Electricity Governance in Asia: Some Preliminary Results

In the early part of this paper I argued that the global trend toward electricity restructuring had brushed away the social compact that was embedded within state control over electricity. The result is to orphan electricity-related social policy, which consists of both the public interest at stake in having effective and reasonably priced electricity, and larger social interests such as access, affordability, and jobs. Regulators are instructed to steer clear of some issues, lest they muddy the signals they send to investors, even though their decisions often have social implications whether they consider them or not. Governments are loathe to issue social directives to regulators for the same reason, or issue vague directives that allow them to deny responsibility for any subsequent regulatory decisions. But the political pressures in the system remain, as labour unions agitate for labour protection, different interest groups mobilize for reasonable or low tariffs, and well connected elites seek to by-pass checks in the system to turn a profit. The brief review of the regulatory literature above suggests that the roots of regulation lie in administrative mechanisms to ensure the public interest. But along the way concerns of capture have increasingly forced regulation into a more narrow technocratic framing, only for this framing to erode under the pressure of interest representation into a model approximating a regulator at the centre of a web of stakeholder interests.
Regulatory agencies in Asia were set up as narrow, technocratic bodies intended to have limited discretion. But, perhaps because the model was often copied from international, particularly American, experience, in some cases regulatory legislation also included various institutional features consistent with a stakeholder view: a bias toward transparency, scope for participation through hearings, and so on. These features may yet afford an opportunity to remake regulation into a plural political space within which contending interests can be reconciled without spilling over into the political arena. However, much depends on the nature of the political space being crafted by regulatory agencies, and the emergent institutional culture around use of those spaces. The discussion in this section cannot ascertain whether regulatory spaces are being used for articulation of social policy concerns, but it does provide evidence on whether the potential exists to do so.

In what follows, I draw on the preliminary results of a four country study that aims to assess these institutional spaces for governance within the electricity sector. The “Electricity Governance Initiative” seeks to map regulatory governance through a series of “indicators” or structured questions. While the study is broader than the regulatory process alone, in this paper I limit myself to the 23 regulatory indicators (not all of which were assessed in all countries). Indicators cover institutional dimensions of regulators – such as selection process, procedures for sharing documents, the strength of appeal mechanisms – and operational elements such as whether orders are reasoned, and decisions are disseminated. Each indicator is scored on a five part scale based on whether it meets a set of criteria. For example, criteria for regulator selection process include considerations such as a well defined selection procedure, independence of the selection committee, and existence of criteria regarding composition and eligibility. Indicators were assessed using documentary evidence and interviews. Finally, each indicator is categorized

10The “Electricity Governance Initiative” was jointly designed by the World Resources Institute (USA), National Institute of Public Finance and Policy (India) and Prayas Energy Group (India). The data collection and analysis has been conducted by coalitions of research partners in India, Indonesia, Philippines and Thailand. The preliminary work reported here therefore represents the collaboration and efforts of many individuals and groups, and I wish to thank my many colleagues for sharing the insights from their work. These results are preliminary, they are included here to stimulate discussion, but should be read as a work in progress with the process of verifcation still underway. Also, the interpretation of the results is my own, and not that of the research partners. For both these reasons, none of the participants in the project should be held responsible for the results presented here. The implementation phase of the project is supported by the UK Foreign and Commonwealth Office and the U.S. Agency for International Development, whose support is gratefully acknowledged.
into one of four “governance principles”: access to information; participation; mechanisms of accountability; and the capacity to effectively engage in the regulatory process.\footnote{Further details on the indicator framework are available at www.electricitygovernance.wri.org}

The four countries examined – India, Philippines, Thailand, and Indonesia – represent a wide range of regulatory conditions. India has state level regulators, and many have been in existence for four to five years, and have established a track record. The Philippine regulator is relatively more recent, and the track record weaker. Thailand only constituted an interim regulator in 2005, and there is no track record, while the regulatory task in Indonesia continues to be embedded within the executive branch, rather than being devolved to a specialized agency as in the other cases.

In what follows, I briefly discuss the summary results from each country case as sorted by governance principle, and then draw out some common themes. In several of the countries, the analysis is still underway, and only a partial exploration of the results is possible in this paper. This analysis will be supplemented in future revisions as data becomes available. Moreover, an exploration of the voluminous detailed material that will ultimately be collected through the Electricity Governance Initiative is beyond the scope of this paper, but, when complete, the final analysis should provide detailed insights into the potential for electricity regulatory processes to effectively govern the sector through a model of stakeholder representation.

\textit{India}

Since India has state level electricity regulators, a sample of three states (Andhra Pradesh, Karnataka, and Haryana) was studied. Although this is a small sample it should, at minimum, give indications of the direction of regulation in India. The data for India are summarized in Figures 1.1 to 1.4.

A glance at Figure 1.1 on access to information suggests reasonably robust, if not perfect, institutional procedures for transparency. Thus, there are procedures for disclosure of documents, mechanisms for public access and efforts at dissemination. Most significant, there is full procedural certainty about regulatory decision processes, a necessary condition for stakeholder engagement. The major exception to transparency is the lack of information available about the
use of consultants. This is a gaping hole, since many regulatory commissions deploy consultants for bread and butter decisions such as tariff rulings. The process of selection of regulators is uneven across the states, reflecting various state-level idiosyncrasies that emerge from the detailed indicator, such as the disbanding of a selection committee by the government when it nominated a candidate unacceptable to the government. The ability of a state government to dismiss its own selection committee with impunity speaks to the continued danger of political capture.

Public participation procedures (Figure 1.2) highlight the considerable space for public engagement with regulatory process opened up by the formal requirement of having hearings and open proceedings. However, participating in these proceedings is a challenging task, requiring considerable technical and economic capacity and knowledge of the regulatory process. Thus, the number and quality of civil society interventions in the regulatory process is modest. For this reason, the toolkit designers explicitly included a question on the extent of formal institutional representation of disadvantaged communities, only to find that minimal such mechanisms have been established.

Figure 1.3 reveals relatively well developed institutional mechanisms for accountability in India’s regulatory process. With the exception of the existence of an appellate body, which is satisfied, most indicators focus on clear statements of procedure against which accountability could be demanded. For the large part, these have been satisfied. For example, standards of quality of service, clarity of licensing provisions, reasoning of orders and measures to limit conflict of interest among regulators all score high. Inclusion of a clear and explicit tariff philosophy in this set is intended to reflect the need for explicit deliberation about how regulators manage contrasting objectives – social and economic – in setting tariffs, and to provide citizen the opportunity to hold regulators to their decision.

The final set of indicators on capacity (Figure 1.4) speaks both to the capacity of the regulatory commissions themselves, as well as to the capacity of stakeholders to effectively engage in the process. Those capacities enshrined in law – existence of an independent regulator, authority of the regulator, functions and autonomy of the regulator – score high, suggesting that the legal framework is sound. However, regulatory staff have limited opportunities for training, and invest nothing in building the capacity of disadvantaged communities to engage in the
regulatory process. Finally, the extent to which the regulator is proactive or reactive depends on the particular case, and speaks to an important dimension of regulatory culture that is worth watching in the future.

Philippines

(Data is not yet available for the Philippines. This section will be completed in time for the final version of this paper.)

Thailand

Thailand has a single, interim regulator which was only established in 2005. Consequently, there is no track record of regulatory functioning to speak of. However, the indicators nonetheless provide a basis for exploring the institutional framework of Thai electricity regulation. Since not all the indicators were completed by each country team for reasons of applicability and priority, this section only reports against a subset of the entire indicator framework.

With regard to access to information (Figure 3.1), the limited information available from Thailand suggests that selection of regulatory body members remains a problem, speaking, as in the India case, to the prospects for political capture. However, the institutional mechanisms guaranteeing disclosure of documents in the possession of the regulatory body is high, an important prerequisite to an informed debate.

Thailand has the benefit of a strong and capable set of civil society institutions that are able to actively engage in the regulatory process, as suggested by Figure 3.2.

Figure 3.3 suggests that in several institutional dimensions, the interim regulator does not provide a strong basis for accountability. Thus, while there are moderate protections against regulatory conflict of interest, there is no appeal mechanism, orders are not reasoned which deprives stakeholders of knowing how their opinions were factored into regulatory decisions, and where there is a tariff philosophy the process for defining it is inadequate.

Finally, Figure 3.4 illustrates that while there is indeed an independent regulatory body, its formal authorities, functions and legal protections of autonomy are weak. In its operations, there is little regard for developing the capacity of disadvantaged groups.
Indonesia

By end 2005, the Indonesian electricity sector was in a state of flux. A national electricity law had been repealed by the Supreme Court, and a new one was still in preparation. Consequently, as of 2005, regulatory decisions were still embedded within the executive. Indonesia, therefore, provides a point of contrast to the other countries, as an example of regulatory process that is embedded within a ministry rather than ensconced in a separate and legally independent regulatory space. Since not all the indicators were completed by each country team for reasons of applicability and priority, this section only reports against a subset of the entire indicator framework.

Figure 4.1 shows that there is highly limited transparency in the Indonesian electricity regulatory process. While the indicator for disclosure of documents in the possession of the regulator is scored “medium”, digging deeper into the data reveals that this disclosure is on an ad hoc basis, which is inadequate to the needs of transparency. Moreover, while there is a procedure for public access to these documents, it is not supported by a well indexed database, reasonable cost to obtain documents and dissemination of information about document availability and procedures, calling into question the practical usefulness of the disclosure provisions. Finally, there is negligible effort made to disseminate actual decisions of the regulatory body.

Figure 4.2 shows a moderate level of institutional space for participation, but a closer examination sheds some doubt on these results. In particular, while the key issue of space for public participation scores a “medium” there is no legal basis for ensuring that regulatory proceedings are open to the public. However, civil society organizations do bring some capacity to engage in the process, and the institutional mechanism does allow for some deliberate efforts to represent disadvantaged groups.

There is limited basis for ensuring accountability of regulatory decisions (Figure 4.3). While there is an explicit tariff philosophy (although detailed scrutiny shows it was not decided through a participatory process), regulatory decisions and orders are not reasoned. As a result the public has no way of knowing if the regulator abided by its own tariff philosophy, or if decisions were ad hoc.

The institutional capacity of the regulatory process in Indonesia is extremely weak (Figure 4.4). Regulatory decisions were embedded within the ministry, which means that there is
no explicit allocation of functions, no effort to create legal autonomy for these decisions, and no clear functional or jurisdictional definition of regulatory tasks.

**Summary of Country Results**

Looking across the preliminary results available thus far, the Indian regulatory system appears to have the strongest formal and institutional basis to support a stakeholder approach to regulation. Formal support for transparency and participation, clearly demarcated functions and authorities, a requirement for reasoned orders, and reasonable capacity, both of regulatory institutions and of civil society, are all positive signs. However, digging deeper into the indicators beyond the summary level reported here, suggests that these measures remain substantially on paper, and that there is little effort to proactively forge the regulatory process into an open and transparent political space for stakeholder engagement. Nonetheless, the formal and legal “hooks” provided by law and existing operating rules provide the basis for public interest groups to create such a space over time. The formal basis exists for regulation to become an important arena for debate over electricity-related dimensions of social policy in the future.

The Thai record suggests an institutional process in its infancy. Since the Thai regulator is but an interim regulator, it is too early to cast judgement. Apart from some formal requirements toward transparency, there are few of the necessary conditions for open and predictable regulatory process necessary to support a stakeholder model. However, Thai civil society groups are active in the regulatory debate, and since the window is open, as yet, to shaping the final institutional form, there is some potential for electricity regulation in Thailand to be shifted – in law and practice – toward a stakeholder approach to regulation.

The Indonesia case illustrates the importance of having an independent regulator by showing that the conditions for public interest representation on social policy or on any dimensions of the electricity process are absent when no independent regulator is in place. The Indonesia study suggests similar weaknesses to the Thai study, and even the formal guarantees of transparency are absent. The larger point being made here is that independent of utility ownership, there is a case for a public sphere for deliberation on issues of larger public and social interest, which, in the case of the electricity sector and perhaps public utilities more generally, independent regulators might best be able to provide.
Conclusion

There is little doubt that there needs to be a space for articulation of and engagement with social policy related to electricity. At minimum, within social policy I include social concerns embedded in mainstream economic issues such as monopoly regulation, competition policy, and compliance with quality of service standards, as well as “external” effects such as access to electricity for disadvantaged communities, equity impacts of tariffs, and employment effects of reforms. Without such a space, social concerns and their political expression spill into the political sphere, rendering politically unviable broader reform processes.

Indeed, there is a case to be made that the halting nature of electricity reform worldwide, and especially in developing countries, is due to the failure to explicitly account for social concerns or indeed, to discount them. Thus, implementation of the Electricity Act is stalled in India, the omnibus electricity law has been overturned in Indonesia, and both Philippines and Thailand have seen popular protest over tariff hikes. While electricity restructuring advocates cast a preoccupation with social issues as the main problem with the old regime of state led electricity, the real problem is the absence of an explicit balancing mechanism between social and economic goals. Whether under the old model of vertically integrated, state owned electricity, or the new model of privately owned, unbundled and market-led electricity provision, some political mechanism for balancing social and economic interests is necessary.

In response to this need, I have sought to spell out an argument in three parts. First, the complex exercise of electricity restructuring has led to a demotion of social issues. Second, regulation has emerged as a central element of the restructuring prescription, but also as a potentially fruitful site for social policy. And finally, procedural safeguards built around a model of stakeholder engagement are the most appropriate basis to forge regulation into a new arena for otherwise orphaned social policy in electricity.

If this argument is credible, then the present time is an important moment to inject this perspective into debates over electricity reform and regulatory formation. Regulatory institutions are in the process of being shaped by far-reaching laws, as the case of Thailand and Indonesia show. The India example suggests that by providing the appropriate legal provisions to back a stakeholder model of regulation, civil society groups can be considerably empowered to have a voice. Going beyond legal provisions, the first few years of a regulator will shape the emergent
regulatory culture, making it either consistent with or hostile to a stakeholder view of regulation. In India, which has the most developed institutional structures among those studied, there is still considerable distance to go before the merits of a stakeholder model are appreciated and internalized in regulatory functioning.

In addition, more work needs to be done, perhaps in cases with a longer history of regulation, to examine actual efforts to use regulatory agencies to further social policy. This research is necessary to round out the argument about the potential role of regulation as a way of addressing social concerns.

Finally, furtherance of social policy through stakeholder-engagement in regulatory process critically depends on the capacity of citizens, whether directly, or through public interest representatives, to take advantage of regulatory spaces. While creating open and transparent regulatory spaces is important, equally urgent is identifying, supporting and even stimulating the formation of individuals and groups capable of using new regulatory spaces for social policy.
References


Healey, Simin Davoudi, Stephen Graham and Ali Madani-Pour. New York: John Wiley & Sons Ltd.


Fig. 1.1: Access to Information- India

- Periodic performance reports by licensees / utilities (RP20)
- Dissemination of regulatory body's decisions (RP19)
- Procedure for public access to regulatory body documents (RP13)
- Disclosure of documents in possession of regulatory body (RP12)
- Procedural certainty about regulatory process and decisions (RP10)
- Information available to public regarding use of consultants (RP9)
- Selection of regulatory body members (RP4)

Values

- Andhra Pradesh
- Haryana
- Tamil Nadu
Fig. 1.2: Participation- India

- Interventions by civil society in the regulatory process (RP 17)
- Institutional mechanism for representation of interests of weaker sections / stakeholders (RP 15)
- Space for public participation in the regulatory process (RP 14)

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<th>Andhra Pradesh</th>
<th>Haryana</th>
<th>Tamil Nadu</th>
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<td>Interventions by civil society in the regulatory process (RP 17)</td>
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<td>Medium</td>
<td>Medium-High</td>
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<tr>
<td>Institutional mechanism for representation of interests of weaker sections / stakeholders (RP 15)</td>
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<td>Medium</td>
<td>Medium-High</td>
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<tr>
<td>Space for public participation in the regulatory process (RP 14)</td>
<td>Low</td>
<td>Low-Medium</td>
<td>High</td>
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Fig. 1.3: Accountability & Redress- India

- Standards of consumer service and quality of supply (RP 23)
- Clarity & Quality of licensing (RP22)
- Quality of tariff philosophy (RP 21)
- Reasoned orders and decisions of the regulatory body (RP18)
- Appeal Mechanism (RP7)
- Measures to limit conflict of interests of regulatory body members (RP5)

Andhra Pradesh  Haryana  Tamil Nadu
2.1 to 2.4 - Philippines
Data is yet not available.
Fig. 3.1: Access to Information - Thailand

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<td>Disclosure of documents in possession of regulatory body (RP12)</td>
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<td>Selection of regulatory body members (RP4)</td>
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<td>Procedure for public access to regulatory body documents (RP13)</td>
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Fig. 3.2: Participation - Thailand

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<td>Interventions by civil society in the regulatory process (RP17)</td>
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<tr>
<td>Institutional mechanism for representation of interests of weaker sections / stakeholders (RP15)</td>
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<tr>
<td>Space for public participation in the regulatory process (RP14)</td>
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</table>

Values: NA, Low, Low-Medium, Medium, Medium-High, High
Fig. 3.3: Accountability & Redress- Thailand

- Standards of consumer service and quality of supply (RP23)
- Clarity & quality of licensing (RP22)
- Quality of tariff philosophy (RP21)
- Reasoned orders and decisions of the regulatory body (RP18)
- Appeal Mechanism (RP7)
- Measures to limit conflict of interests of regulatory body members (RP5)

Values: NA, Low, Low-Medium, Medium, Medium-High, High

Fig. 3.4: Capacity- Thailand

- Capacity building of weaker stakeholders (RP16)
- Pro-activeness of regulatory body (RP11)
- Training of regulatory body members and staff (RP8)
- Autonomy of regulatory body (RP6)
- Functions/jurisdiction of the regulatory body (RP3)
- Authority of the regulatory body (RP2)
- Existence of an independent regulator (RP1)

Values: NA, Low, Low-Medium, Medium, Medium-High, High
Fig. 4.1: Access to Information - Indonesia

- Disclosure of documents in possession of regulatory body (RP12)
- Procedure for public access to regulatory body documents (RP13)
- Dissemination of regulatory body’s decisions (RP19)

Indicator

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Fig. 4.2: Participation - Indonesia

- Interventions by civil society in the regulatory process (RP 17)
- Institutional mechanism for representation of interests of weaker sections / stakeholders (RP 15)
- Space for public participation in the regulatory process (RP 14)

Indicator

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<tr>
<td>Space for public participation in the regulatory process (RP 14)</td>
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</tbody>
</table>

values
Fig. 4.3: Accountability & Redress - Indonesia

Indicator

- Quality of tariff philosophy (RP 21)
- Reasoned orders and decisions of the regulatory body (RP18)

Values

NA Low Low-Medium Medium Medium-High High
Fig. 4.4: Capacity-Indonesia

- Autonomy of regulatory body (RP6)
- Functions / jurisdiction of the regulatory body (RP3)
- Authority of the regulatory body (RP2)
- Existence of an independent regulator (RP1)

Indicator values:
- NA
- Low
- Low-Medium
- Medium
- Medium-
- High