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Regulatory Governance: Principles, Practice and Applications to off-grid electrification

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Abstract

This paper provides a review of governance concepts and presents the principles of governance considered in the literature. This is then applied to off-grid electrification where the challenge is to construct an institutional framework than can provide an efficient service while ensuring local accountability. The paper suggests that responsive and smart regulation would be required, which requires merging the regulatory space with policy space to understand what is existing at present and what can be expected from any new interventions in terms of effects and outcomes.

Key words: governance, regulation, regulatory space, policy space, rural electrification

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1.0 Introduction

This paper begins with general definitions and principles of governance and regulation, analysis of institutional frameworks and the scope of regulatory governance, and a consideration of the significance of policy transfers between differing cultural contexts. The paper concludes with a consideration of issues of regulatory governance in public services sectors, and specifically in relation to the electricity sector, and off grid electricity provision in rural areas. The paper summarises relevant published literature, drawing on both developed and developing country experience as well as what we know about service provision in remote rural areas. The emphasis throughout is on the need to go beyond narrower, 'technical' approaches to regulation, since in the public policy arena these are necessarily embedded in wider social and political contexts. Specific policy initiatives (such as off grid rural electrification) will not succeed if these wider contexts are neglected in policy design and implementation. Particular attention must be paid to the significance of institutional deficits and /or failures, and in terms of impact on the poor, to the linkages between infrastructural and social welfare reforms and initiatives.

Interest in regulation as a mode of governance is now a central feature of the literature on regulation in developed economies. Extending this area of study to developing and transitional economies gives rise to problems in comparative analysis which are explored in this paper. Two categories of problem are considered:

1. the problem of contested *definitions,* arising in part from the intervention in the traditionally economic literature of disciplines such as law and political science
2. The problem of *scope,* which remains ambiguous because of the difficulty of separating out regulation from the normal range of state activities

The paper emphasises the significance of legal, political and administrative structures in determining the design, implementation and outcomes of regulatory reforms, and brings into sharp focus analytical problems in the application of this approach to regulation in developing countries, in particular in relation to the notion of 'independent' regulation. Effective infrastructural reforms need to be underpinned by effective regulators.

1.1 The definitional problem

'Concepts of regulation are ….legion' (McGregor et al. 2000:1)

'Governance has too many meanings to be useful' (Rhodes, 1997:52)

According to the OECD (1997), regulation refers to the diverse set of instruments by which governments set requirements on enterprises and citizens. Regulation includes laws, formal and informal orders and rules issued by all levels of government, and rules issued by non-governmental or self-regulatory bodies, which enjoy delegated regulatory power: 'Constitutions, parliamentary laws, subordinate legislation, decrees, orders, norms, licenses, plans, codes, and even some forms of administrative guidance can all be considered as "regulation'' (OECD Council document, quoted in Black, 2002:9). In this approach, regulation is straightforwardly based on rules which may give strict directives, or be broadly enabling in ways which permit further negotiation; rules may also be framed in ways which concede discretion over their detailed application. Any enquiry into rulemaking must establish what are the institutions of rule-making, who are the rule-makers, how rules are implemented, and by whom, and the forms that compliance and accountability take (Ogus, 2002,)

Another simple yet broad definition (Hood et al: 1999) takes regulation to be 'the use of public authority to set and apply rules and standards' (ibid: 3). The authors, however, make a distinction between the regulation of business (private, non-state activities) and regulation inside government (within and between government agencies, and between different levels of national government). They essentially regard the principles of regulation to be the same in either the public or the private sectors, or indeed in any combination of these sectors as represented, for example, by public-private partnerships, or contracting arrangements, or situations where there may be some form of regulation common to both sectors (e.g. medical professional self-regulation).

These simple definitions seem to lead to a straightforward set of research or analytical questions, but in relation to the governance and policy processes even of developed countries they are questions to which we frequently do not have clear answers; and this absence of clarity is even more disabling in attempts to apply to the economic, legal and political systems of developing countries models of economic reform rooted in the ideological preferences and policy systems of developed countries.

The problem here is that there are different approaches to the notion of what constitutes regulation. As Ogus (2002) makes clear, much of the literature provides a formal and legalistic definition which focuses on the construction and application of rules, while for

many economists, regulation is primarily the means by which private firms are constrained from anti-competitive behaviour, or more broadly conceived, are encouraged to pursue competitive practices. Corresponding to the legalistic approach is the traditional view of government as a command and control regime operating in a precisely defined public interest, while the second view leads to a focus on the way in which regulation creates the conditions for efficient markets. The definition offered by a leading analyst of European regulation of 'sustained and focused control exercised by a public agency, on the basis of a legislative mandate, over activities that are generally regarded as desirable to society' (Majone, 1996: 9) appears to take in both meanings, but is still too narrow since regulation is often derived from sources other than a legislative instrument, and because the definition still leaves a question mark about who makes formulations of what is regarded as desirable for society, i.e. the public interest. Since 'regulation is seen both as a form of public policy and as a means of constituting markets' (Wilks,1996:536), we need an approach which on the one hand captures the multi-layered nature of institutionalised regulation, and on the other leads us into an exploration of the way in which 'the dark world of politics sullies the purity of markets' (McGregor et al 2000: 2). Even the narrower approach concedes that 'because regulation redistributes resources and rents, politicians often use it to secure political gains rather than correct market failures' (Guasch and Hahn, 1999:137).

At this point it is worth setting out in some detail an argument presented by Black (2002) because this analysis, while based on European and American literature and practice, raises many of the conceptual issues which this paper seeks to assert as highly significant in dealing with regulatory frameworks and practice in developing countries.

Black notes a range of meanings given to regulation, starting with 'the core understanding that many have ' of control-and-command regulation, seen as 'regulation by the state through the use of legal rules backed by (often) criminal sanctions' (Black,2002:2). The well-known failures of this model are rehearsed: instrument failure, information and knowledge failure, implementation failure, motivation failure, and capture failure. Black is concerned to counterpoint this model with one of 'decentred regulation', dependent on notions of 'complexity, fragmentation, interdependencies, ungovernability, and the rejection of a clear distinction between public and private' (ibid:3). Regulation is a complex interactive process which is 'co-produced'. All actors have needs and capacities and 'solutions' emerge from a mutually dependent relationship. This complexity is further affected by changes in the public-private set of relationships so that 'Governance, and regulation, is seen by some to be the outcome of the interaction of networks…which operate in the absence of formal governmental or legal sanction. ' (ibid:6).

Black, usefully for our purposes here, derives three 'text-book 'definitions of regulation from the existing literature

1. rules enforcement and monitoring, typically by a specialist public agency
2. any form of direct state intervention in the economy
3. all mechanisms of social control of behaviour

Clearly the first two meanings involve state activities, and correspond to widely accepted meanings, although the majority of economists currently working on regulation would be caught under the first meaning. Equally clearly the third meaning is difficult to pin down because it has virtually no boundaries or restrictive limitations.

But Black concedes that 'there is also frequently an implicit or explicit assumption that the target of regulation is an economic actor' (Black: 2002:10) and argues that this is true even of the 'regulatory state' literature which is used to describe the shift in the style of governance from the direct provision of public services to their provision by others under government supervision. In contrast, other literatures broaden the social scope of regulation to 'any sphere of social action (e.g. the family, reproduction) that employs a range of both state and non-state actors; and to other factors such as social cultural norms'. This 'opens up pretty much the whole of social science', and for regulation specialists 'a seemingly endless territory ripe for colonisation' (ibid:11).

This raises the inter-related issues of intentionality and outcomes. Behind these lies the question: who regulates? By the narrower definitions of regulation, the main province is markets, and actors (including state actors) in the market. Black does not wish to go so far as to propose that 'social' or 'economic' forces of themselves 'regulate', but argues that these forces 'affect the outcome of the interactions that constitute regulation' (ibid:16), and approvingly cites Hood's 'cybernetics' approach (Hood: 1998) in which a regulatory system sets standards, gathers information, and modifies behaviour. This applies whether design or intentionality exist or not. Social norms or culture are potentially as 'regulatory' as legal rules. Recognising that there is a danger that the broad approach to regulation may be so wide-ranging as to produce incoherence, Black now proposes a definition which re-introduces the notion of intentionality but decouples this from the state and from purely economic activity. Hence, 'regulation is the sustained and focused attempt to alter the behaviour of others according to defined standards or purposes with the intention of producing a broadly identified outcome or outcomes, which may involve mechanisms of standard-setting, information-gathering and behaviour-modification' (ibid:19).

We may conclude from this review of definitions concludes, then, that there are alternative and therefore contested definitions. We are free to choose between these, but our choices are likely to be determined by disciplinary settings and preferences, rather than by some neutral process of agreeing on one 'best' definition. Economists will mainly choose a narrow definition which reduces the complexities to be handled and focuses almost exclusively on economic agents and economic outcomes. Moreover, the focus will be overwhelmingly on economic policy issue rather than social policy issues, though it is by no means easy to maintain such a clear distinction.

We might then see disciplinary approaches placed along a continuum (from narrow to broad) of definitions of regulation.

Command and control regulation	Rules and institutions	Institutions and Policy Process	Social Processes and Social Interests
Narrow……Broad			
Economists	Lawyers	Political Scientists	Social scientists

This is quite schematic, representing main groupings; individual economists, lawyers political and social scientists might be found at any point along the continuum.

This reminds us that political and social scientists interested in regulation can be expected to prefer the broader, more inclusive definition referred to earlier. This does not just mean that such an approach will restrict analysis to social issues such as health, welfare, protection against environmental risk and so on. If we take the most obviously economic form of regulation, for example, the regulation of public utilities such as energy, water, etc. the inclusive definition is still needed. At the policy level, the analysis of specific sectoral regulation, to be complete, requires consideration of the *processes* involved. Essentially, these are standard processes of public policy, which involve examination not only of policy design and decisions, but of implementation; while studies of implementation require consideration not only of *impact*, but of *results* and *outcomes*. Invariably, such studies demonstrate an implementation gap or deficit together with a range of unintended consequences which produce outcomes at variance with those expected or intended. In a textbook policy system an evaluative procedure would close these gaps and adjust policy

objectives to learned experience; but in real policy systems this rarely happens. Generally a process of incremental adjustment takes place over quite long time-scales. As Hood (1976) has demonstrated, such adjustment is principally conditioned by political factors. However, it is clear that improved evaluation procedures, including performance assessment systems, can provide a better understanding of the impact of policy reforms upon economic and social outcomes.

1.2 The scope of regulatory governance

Recent literature on regulation in developed economies, more particularly in Europe, reflects this type of policy based conceptualisation and has produced the prevailing terminology of 'regulatory governance', 'regulatory politics' the 'regulatory state', and 'regulatory space' (see especially Majone 1999,1997; Hansher and Moran 1989; Wilks 1996; a more detailed survey of this literature is in Minogue 2001a). What are the implications here for the *scope* of studies of regulation? Put in the simplest way, regulation (within any of the meanings examined earlier) must operate within some sort of governance framework, which in turn becomes part of the necessary scope of enquiry. This framework will incorporate institutions and processes of both public and private decision-making, the assumption being that at many points the private domain is subject to control, intervention and influence by the public domain. This gives rise to some uncertainty about the precise scope of regulation itself, the problem being to distinguish it sufficiently clearly from the rest of what government does.

Hood and Scott (2000) coin the term 'the regulation of government' as one that links the 'regulatory state' and the 'new public management' state, defining a regulatory state as 'one that puts heavy emphasis on rule-making, monitoring and enforcement…rather than on subsidies, direct ownership or state operation (Hood and Scott,2000:2).They concede that 'the link between 'regulation' and other activities in government is admittedly a fine one' (ibid:5), but assist us greatly by providing a definition of 'regulation inside government' as one that must satisfy three main criteria:

1. one public organisation (or part of it) is attempting to shape the behaviour of another public organisation (or part of it)
2. there is some form of arms-length separation between the two (ie there is no co-existing managerial or hierarchical relationship)
3. the regulating body has some formal authority for its regulatory oversight

Hood and Scott suggest that the regulatory problems inside government are much the same as for independent regulation, particularly in terms of information asymmetries, relational distance, and compliance costs. One implication is that we can usefully examine the 'regulatory state' as an interactive public policy system.

Here we might note Majone's focus (in a European context) on the extensive delegation of policy making powers to what he describes as non-majoritarian institutions, by which he means the various new regulatory bodies but also judiciaries, tribunals and other regulatory and adjudicative agencies intrinsic to the public sector. On this reading, 'delegation to independent institutions is an important strategy for achieving policy credibility at both national and European level' (Majone 1999: 6). But in turn, this produces the problem of what is described as 'agency costs' which 'arise because the agents [regulatory bodies] do not necessarily share the objectives of their principals [political leaders]' (ibid:6). An important issue raised here is that 'democratically accountable principals can transfer policy making powers to non-majoritarian institutions, but they cannot transfer their own legitimacy'. Perhaps therefore a key insight is that 'independence from political control does not mean independence from public accountability' (ibid:11). Majone concludes that in designing an effective regulatory state the key variables are

1. the extent to which decisions are delegated to an independent agent rather than taken by the political principal
2. the nature of the structure of governance itself particular in determining the agent's degree of independence from the political process
3. the rules that specify the procedural framework e.g. reason giving requirements, consultative processes
4. the scope for political principals to overrule agency decisions
5. the relative autonomy of financial resources
6. the extent of ex post monitoring, e.g. legislative oversight, judicial review, citizen's complaints procedure

What is striking here is the way Majone moves between the narrower conception of regulatory instruments and procedures, and the broader conception of politics in ways which underwrite the usefulness of the label 'regulatory governance'. This means looking behind the institutional façade to grasp the 'real world' of public action. The orthodox model, with its emphasis on legal rules, formal structures of organisation, rational policy choice, and the assumed implementation of formal policies, has serious limitations, for it oversimplifies the complex processes from which policy debates and decisions emerge; and neglects the *political discourse* of rule-making and rule-application, notably the interplay of ideas, interests, and resources, and the ways in which these interactions determine

outcomes. It therefore fails to explain either policy and organisational failures, or policy innovations and successes, and obscures both the significance of relations of power and influence, and the extent to which public policies and their results are determined by conflicts and bargains between conflicting stakeholders, whether internal or external to public bureaucracies.

This survey of the scope of regulatory governance indicates how far the debate on regulation has moved on from the rather straightforward post- privatisation debate to a more complex discussion of what has come to be labelled 'the regulatory state', but this too readily implies a replacement of other types of state, such as the 'traditional' state, or the 'welfare state', or the 'enabling state'. These are all crude labels, and in reality we are likely to find elements of each, and of the regulatory state, present in any particular national state we choose to examine. Perhaps this is why the notion of 'regulatory space' has been deployed, and offers real purchase as a framework for analysis of infrastructural reforms and their regulatory provisions.. Drawn from the prior notion of 'policy space' in public policy studies, 'regulatory space' offers a canvas onto which we can paint a variety of occupants and their relational configuration; their provenance as state, non-state or hybrid actors matters less than their activities, transactions, motivations, and power or influence. Central to this approach to regulatory governance is work which focuses on institutions. A major contribution here is by Douglass North (1999,1991,1990). North defines institutions as 'the humanly devised constraints that structure political, economic and social interaction' (North,1991:97). Institutions include both informal constraints and formal rules and evolve incrementally, connect the past with the present and the future, and provide the incentive structure of an economy. In this analysis individuals shape institutions and vice versa.

This approach links to ideas of policy space, and of the path dependence of specific political economies North's work has informed a number of contributions to regulatory governance. Resonating North's concepts of new institutionalism Levy and Spiller, (2006) argue that policy-makers' choices on regulatory governance and regulatory incentive structures are determined by a country's specific institutional endowment which has five elements

1. Formal legislative and executive institutions and mechanisms
2. Formal judicial and legal institutions and mechanisms
3. Custom and other informal but broadly accepted norms that may restrain the actions of individuals or institutions
4. The character of contending social interests within a society and the balance between them, and
5. The country's administrative capabilities

Stern and Cubbin argue that 'there is very strong agreement between the various authors as to what good governance entails: 'They all emphasise clarity of assignment of functions, regulatory autonomy, accountability, and transparency' (Stern and Cubbin 2005:7). As Levy and Spiller (1996,1994) emphasise, regulatory designs, practices and outcomes are a function of institutional endowments and realities and these may vary from country to country. Stirton and Lodge see the regulatory process as 'characterised by an interplay of interdependent (state and societal) organisation interests with varying degrees of power and resources each of which is competing for influence over outcomes. In short, regulatory space is characterised by social relations among actors' (Stirton and Lodge,2002:13). They combine the notion of the 'embeddedness' of institutions drawn from Granovetter (1985) with the concept of regulatory space and the idea of trust to argue that the way in which social relations within regulatory space are structured 'affects the institutional capability of regulatory agencies, potentially providing further, societal, protection against the dysfunctional regulatory outcomes of capture or administrative expropriation, (Stirton and Lodge, 2002:14). A difficulty arises here where reforms are based on the transfer of an externally derived policy model: such a model may have been selected precisely to overcome the dysfunctionality of the system into which it is introduced, yet may be destined to fail if it cannot be adapted to the cultural characteristics of the system.

1.3 Towards more responsive regulation

In sum, analysis of regulation involves analysis of ideas, institutions, processes, activities, and actors, in all their myriad interrelationships in economic, social and political spheres. The conceptions of the regulatory state and regulatory space offer us the broadest possible analytical framework, in direct contradiction to the narrow formulations favoured in the standard literature on regulation, and so capably criticised by Black (2002) for its preoccupation with the correction of market failure, when wider issues of the management of a risk society, and the achievement of social justice, should be equally insistent concerns. Moran agrees that effective regulation 'in conditions of great complexity depends on fostering norms among the regulated such that they will voluntarily comply, and depends upon the creation of a constant dialogue between regulators and regulated.' (Moran, 2002:6). Braithwaite argues that we have moved to 'a world where private powers pose many more threats to liberty than public power' and that accordingly we need to escape from traditional forms of political accountability, since these 'cause regulated actors to work defensively to avoid blame, instead of for achieving valued outcomes' (Braithwaite,1999:91). But this approach appears to beg two questions. First, who decides what the appropriate norms should be, or which values should inform what outcomes? If these norms and values are pre-determined, then they will have to be imposed, and may then be ineffective because they are bypassed or resisted internally; if they depend upon

dialogue, they will represent a negotiated bargain, and opportunities for capture. As Moran admits, 'non-formal modes of regulation are themselves subject to the same sort of destructive influences as afflict formal modes' and both 'are undermined by the creativity of strategic actors searching for advantage' (Moran, 2002:7).

If we create truly independent regulatory agencies, who will control them, or mediate any conflicts of interest between their actions and broader public interest concerns? This question might also be addressed to proponents of self-regulation as the only viable response to problems of regulatory overload (whether of the traditional or the post-privatisation kind). What is missing from most accounts of regulation is understanding of the cultural elements that are essential to explanations of social behaviour, whether in general, in national systems, in organisations, or in particular groups; and of interactions and transactions between these various entities. This explanatory mode is well understood in social science, but is often neglected by the economists and lawyers who dominate the regulation literature. Baldwin and Black(2007) seek to redress this neglect in proposing the idea of 'really responsive' regulation. They centre their argument on the significance of social mechanisms and institutions which inspired Ayers and Braithwaite's (1992) concept of responsive regulation in which they condemned as sterile the futile dispute between 'deterrence' and 'compliance' models of regulatory enforcement and searched for a balance between these two systems. The crucial question for Ayres and Braithwaite was 'when to punish, when to persuade?'. Their prescription was a responsive approach in which regulators enforce initially by compliance strategies but are ready to move on to more punitive deterrent responses if needed. They suggested the need for a regulatory agency to operate an 'enforcement pyramid' ranging from persuasion to penalties, and escalating in response to regulatory failures. Baldwin and Black (2007) argue that this approach is persuasive where there is a clear binary relationship between regulators and regulated, but that in the more complex situations to be found in most regulatory systems, it may be too inflexible. In practice, they suggest, 'regulatory objectives are not always clear and legal powers may be limited. Enforcement functions are often distributed across numbers of regulators who struggle to coordinate their activities. Further, it is often extremely hard to measure the success or failure of regulation' (2007:1). They regard existing models of regulatory enforcement as unhelpful to regulatory policymakers: 'neither responsive regulation nor the target-analytic approach, or even risk-based regulation, say a great deal about how a regulator should deal with resource constraints, conflicting institutional pressures, unclear objectives, changes in the regulatory environment…'(2007:3). The idea of 'smart regulation' (Gunningham and Grabovsky,1998), which envisages a three sided pyramid which permits more flexible interaction between different types of regulatory actor, falls short because 'such coordination is not always easy and gives rise to special difficulties of information management, resource and time constraints, and political differences between different institutional actors' (Baldwin and Black,2007:12). The problem seen with risk-based regulation is that it locks regulators into previously defined

priorities and strengthens the possibility of political and legal challenges. There is therefore a danger that 'risk based regulation will tend toi bury policymaking issues deep within the administrative process, making scrutiny and accountability extremely difficult' (2007:15) However, in proposing a more nuanced, detailed, reactive, and transparent model of 'really responsive' regulation, Baldwin and Black admit 'the difficult question of how really responsive regulation can be developed in polycentric regulatory regimes, including those where the roles of policymaking, information gathering and enforcement are distributed between a number of different organisation, particularly where they cross different jurisdictional boundaries' (2007:45).

The literature surveyed so far is based on theories, models and practices drawn principally from developed economies. This paper now considers applications to developing economies.

2.0 Regulatory reform and policy transfer

The 'new public management' (NPM) model of public management reform, or versions of it, have been widely imitated in developing countries, by the process we label 'policy transfer'. Regulatory reforms are an integral part of the NPM model, specifically in being closely tied to market-oriented institutional changes such as privatisation and contracting. First, consideration of the appropriateness for developing countries of developed country models of managerial and regulatory reform must incorporate a critical evaluation of the weaknesses in, and costs of these models. Secondly, NPM entails a transformative conception of the state; while it is clear that the state in developing countries is much in need of renewal and reinvigoration, there is very little agreement on what kind of state this should be, or how such a transformation could be achieved. Should we be trying to reduce the scope of that state, or should we be trying to build up its capabilities, powers and resources in order that it may achieve the developmental objectives required by its own citizens? Finally, the most obvious issue is that of cultural difference. Not only are low and middle income economies distinctively different from rich economies in economic, social and political terms, but there is considerable variation between national cultures within these broad categories, and even variation within national systems.

In considering issues raised by the notion of policy transfer from developed to developing economies Cook and Minogue (2003) suggest that the conditions which the 'best practice' model of regulation assumes include

1. a stable macroeconomic environment, to reduce uncertainty in economic decision making
2. a redistributive tax base, to fund strong social protection arrangements through a well developed social security system
3. a rules based system supported by an effective legal infrastructure and the rule of law
4. a transparent and accountable public policy process
5. a clear separation of administrative and political roles within a democratic constitutional framework
6. appropriate financial and human resources to ensure that regulatory agencies can work effectively

Development agencies are still inclined to proffer models based on conditions and practices such as these in high income economies, then become frustrated when such models do not seem to work elsewhere, or receive little more than diplomatic lip-service. There is a reality gap here between donor ideas of best practice, and the actual legal, administrative, political, and economic processes that exist in low and middle income countries. A good example is afforded by the principle of 'independent regulation'.

2.1 What is independent about independent regulation?

'Independent regulation' is a phrase much in use but one which appears to produce considerable misunderstanding. Coined in the policy systems of developed economies with apparently well defined separations between economic, legal, administrative and political institutions, it begins to show strain even in this context when subjected to detailed analysis (see Hood and Scott: 2000). The developed economy literature on regulation generally conceives regulation to be 'independent' where an agency is created with specified powers, and the means to enforce these powers, but many problems have arisen in practice. If we apply a more politically sensitive analysis to developing countries we simply cannot expect the creation of arms-length agencies that can hope to establish any real 'independence' of the dominant political and bureaucratic institutions of the central state, especially where political stability itself may depend on the careful exercise of political patronage. In short, where regulators, and even in many cases judges, owe their positions to the political-bureaucratic elite, the possibilities for the exercise of independent judgement and action are considerably reduced, or may be non-existent. Since privatisation and regulatory reforms are largely concentrated in public utilities where there is a strong public interest factor, and therefore political sensitivity to both service delivery and to regulatory practice, it is difficult to envisage what 'independent regulation' could possibly mean, or how it might be somehow insulated from overriding political considerations. This factor lies behind the uneven process of privatisation in developing countries, where the persistence of 'statist' values, the resistance of labour unions, and the absence of necessary market conditions

means that a clear separation between public and private interests and ownership simply cannot be assumed.

It is clear that national political and bureaucratic cultures themselves can and do hinder the release of economic functions from government control, making independent regulation unworkable. Institutional transfers from public to private control offer new opportunities for clientelist patronage, as in the case of the Malaysian power sector, where financial gains went mainly to members of the ruling political parties (Smith, 2003). In countries such as Sri Lanka (Knight-John, 2004) and the Philippines (Carino,2004), continued political intervention in supposedly independent regulatory bodies has resulted in an acceptance that mechanisms are not working, and a lack of will from either side to do anything about this. In South Africa (Muller, 2004), privatisation reforms have stuttered in the face of labour resistance, and regulators complain about direct political interventions in regulatory activities.

This may at first glance seem a depressing scenario, but these characteristics may be better understood if we accept the complexity of a development agenda in which political leaders are constrained to place the needs of the poor above the requirements of economic efficiency or emerging markets. The choices involved here are political choices, so it is not surprising that governments so often intervene in nominally independent areas of the economy. This points to the crucial role governance systems play in economic regulation and economic development. In the long run, independent regulation may well be a desirable objective both for developed and developing economies alike, but in the meantime, regulators and donors need to work with, and not against the political and administrative systems and cultures actually in place.

2.1.1 Accountability

A central element in regulatory governance is the issue of accountability, since improved accountability and transparency are usually posited as the principal objectives of regulatory reform (assuming this to be defined as re-regulation rather than deregulation). The neoliberal version of accountability with which current regulatory reform is so closely implicated rests on evaluation of performance against pre-set standards or targets, and offers incentives to managers as well as some loosening of the traditional restraints. While financial and procedural accountabilities can be brought within such a framework (and improvements here would undeniably be a gain) it is a framework which sits uneasily with

developing country governance (or substantive accountability: see Ogus 2002). The degree of managerial and institutional autonomy involved and reliance on a competitive model of public service delivery, assume the existence of market and civil society institutions which in many developing countries are more notable for their absence or deficiencies. Moreover, while the advantages of autonomous regulatory agencies standing at arms length from state political control and intervention are obvious, there are serious disadvantages too, including the reduction of political accountability, and fragmentation at the heart of governments already suffering problems of institutional incoherence. In the political conditions of developing countries we cannot expect significant public agencies to operate as though politics did not exist, as the practice of privatisation has already demonstrated (Ramamurti,1999: World Bank,1995). Moreover, giving to the managers of regulated services simultaneously more discretion and more financial responsibility appears to put in place precisely those conditions which may lead to increased corruption (Harriss-White and White, 1996); while giving more autonomy to regulators (by taking them outside government frameworks) is unlikely to reduce regulatory and political capture where constitutional, legal and public interest mechanisms of accountability offer no protection (Ogus,2004). As limited experiments with executive agencies in developing countries have shown, where there is a conflict between economic efficiency objectives and the internal dynamics of political governance, the imperatives of politics will usually prevail (Harrison2001, Therkildsen 2000). One conclusion we might draw here is that accountability finally is underwritten less by formal institutions than by relations of trust, the argument that now makes the running in the regulatory literature in developed economies, as discussed earlier (Baldwin and Black,2007; Braithwaite 2006).

Some of these elements are highlighted in the findings of the Regulatory Governance Research Programme of the Centre on Regulation and Competition (CRC) at the University of Manchester, derived in part through its network of research partners in both developed and developing economies. This research focussed on issues of regulatory governance and post-privatisation reforms and its findings (presented in detail in Minogue and Carino, 2006) may be summarised briefly as follows:

1. there are serious gaps in our knowledge and understanding of governance process in developing economies; these governance structures and processes appear to serve a range of objectives other than efficiency; correspondingly due attention to process, i.e. how things really work in practice, is essential to effective governance reform;
2. transferred 'best practice' models demonstrate clear adaptive variations in different countries, and it is likely that the 'blind' importing of these models from developed economies will be counterproductive where no account is taken of differences in legal infrastructure, bureaucratic culture, market realities, and political values;

3. Regulation *inside* government remains widespread and this will bring resistance to stereotypical regulatory reform.
4. A key task is to design governance reforms so that opportunities for corruption are minimised rather than enhanced.

Political institutions and relationships constitute a primary operating context for economic reforms; but these political factors are frequently neglected or inadequately understood by external economic policy actors; in this respect the rhetorical nature of political commitment to such reforms is consistently underestimated. Well-organised and institutionally entrenched political interests will often succeed in controlling or subverting economic agencies; nonetheless, authoritative and stable political interests can be a driver for economic reforms.

Market reforms of basic public services are likely to meet political and user resistance if they reduce access, affordability, and quality; the impact of these reforms on poor communities is inadequately understood.

These findings demonstrate that significant constraints on efficient and effective policy and administration flow from the cultural characteristics of the government system, and the primary political context within which government operates. We need to understand better how these political, bureaucratic and cultural factors impede effective regulatory reform. We also need a better understanding of the role and operation of legal institutions and actors in regulatory systems that are politically and behaviourally constrained. There is therefore a link between general public management reform and regulatory reform, in the sense that the effectiveness of any area of public policy, including economic policy, will be determined by whatever are the bureaucratic and political constraints and weaknesses inherent in the general system of governance. Political factors may be taken in principle to represent an opportunity for commitment to effective reforms but are just as likely to be a potential source of inhibition. The tension between efficiency objectives and political imperatives is clearly marked, and is itself responsible for the relatively slow progress of institutional reforms.

Two examples may be cited here. First, Knight-John (2007) demonstrates in a study of regulatory impact assessment in Sri Lanka (or rather, its absence there) that regulatory weaknesses in Sri Lanka are explained by a flawed institutional framework, the absence of an explicit regulatory policy, and poor governance. This latter characteristic leads to easy regulatory capture by interested parties, even raising the possibility that regulatory capture has deliberately been built into the system. Where formal institutions of regulatory accountability exist, they largely constitute a façade concealing the de facto politicisation of the regulatory process. In such conditions, regulatory tools such as regulatory impact analysis are unworkable.

A second study, one that illustrates the crucial effect of politics on privatisation strategies and outcomes is provided by Smith (2003). His comparison of the privatisations of electric power in Malaysia and Thailand argues that:

1. in both countries, restructuring and privatisation of the electricity sector has 'dramatically changed the nature of governance' of this sector (Smith, 2003:275)
2. strong government leadership in Malaysia meant rapid privatisation, while weak coalitions in Thailand meant slow and contentious progress
3. in both cases, restructuring was used to reward political supporters
4. the strength of labour unions in Thailand meant resistance to reforms but also ensured a more open and responsive policy process; in Malaysia, on the other hand, there was a rapid implementation but a closed policy process, 'the net result of which has in fact been a reduction in competition, increase in charges, and consumer complaints' (ibid:282).

These cases illustrate the impossibility of designing and introducing rational economic reforms without regard to the bureaucratic and political contexts which ultimately determine how and whether economic (and indeed managerial) measures work out in practice; they also imply that while politically contentious debates over privatisation and regulatory reforms may slow down the pace of reform, the benefits derived from a more open and transparent process may ultimately produce more effective outcomes. Hood is right to warn against what he calls 'fatal remedies' (1998:208), because of the tendency for idealised modernisation initiatives to produce perverse and unexpected results.

In this respect a persuasive analysis is offered by Khan (2002) who argues that there are two alternative views of the role of the state in developing economies. The model preferred by donors (and largely the object of review and criticism in this paper) is labelled by Khan a 'service-delivery' state, and its failures flow essentially from governance failures: only correct these failures and all else will be delivered. Khan proposes that the more realistic model is that of the 'social transformation' state, which focuses on the role of the state in the transition to capitalism, and subsumes the first model. Crucially, 'the reform package which aims to push institutions in developing countries in the direction of a generalised advanced country model is not actually relevant for assisting developing countries' in carrying out a transformation which 'has historically required stronger and more interventionist state capacities than are envisaged in the liberal market consensus' (Khan,2002:3). Khan's conclusion is that 'the distribution and disposition of political power in society is a key determinant of enforcement success, and the emergence of high-growth states is therefore as much a task of political as it is of institutional engineering'; and that

'the more persistent types of state failure occur when institutions fail because of an inappropriate match between internal political settlements and the …interventions through which states attempt to accelerate transformation and growth' (ibid:5). Perhaps we need to recall here that 'government failure' and 'market failure' are both rather artificial and crude constructs and oversimplify the complexities and richness of public-private interactions in economic and social life.

2.2 Summary: towards a transformative regulation

It is possible to treat regulatory governance in a narrow and largely technical sense. In this formulation, regulation is defined principally in terms of its contribution to an efficient market, which on the basis also of effective rules to ensure competition, will lead on seamlessly to productive economic growth. This growth will in the long run at least reduce poverty as the benefits of growth trickle down to through the social system and raise the general standards of life. In this model, regulatory governance is significant in establishing an appropriate set of legal and administrative institutions that underwrite the efficiency of the market-based system; there is a related assumption that this all takes place within a democratic political framework that ensures accountability within the rule of law. But as we have seen, there are serious problems with this traditional model; problems of definition (Black 2002); of scope (Hood and Scott 2000); of legitimacy (Majone 1999); and of effectiveness (Baldwin and Black, 2007). Moreover, serious questions have been asked about the assumptions of the wider growth-poverty relationship of which the regulatory governance model is an institutional part.

Generally this traditional model of regulation is the one which has informed the economic reform agendas of development policymakers. There are two variant approaches here. Neoliberal versions incorporate the view that regulation is itself a dangerously restrictive practice which impedes the inherently efficient free market. Policymakers therefore simultaneously pursue *deregulation* to remove bureaucratic obstacles to market activity; *privatisation* to move into the market sector activities and services hitherto the direct responsibility of the state; and promote the idea and practice of *independent* regulation (i.e. independent of control by governments and politicians) where market activities need some minimum of regulation. These variations may be combined and monitored within one policy system through the creation of institutions of *regulatory impact assessment* (Kirkpatrick and Parker, 2007)

Overall, however, attempts at 'policy transfer' of the privatisation and regulation model of economic reform have run into serious problems of cultural reception. Many of the countries concerned acknowledge the necessity for less wasteful government bureaucracy and less stifling forms of traditional government regulation, but feel compelled to retain other developmental agendas, including response to the basic social needs of most of their citizens (an excellent example is South Africa). Some countries are characterised by political systems that give priority to political agendas and tend only to pay lip service to aid donor preferences (Malaysia may be a good example). Others have neither the financial resources nor political will (or stability) to undertake reforms effectively (Philippines is an exemplar despite its excellent levels of human and social capital). Perhaps the simplest point to make here is that where the neoliberal reform model has the characteristics of a uniform prescription and blueprint, local cultural variations mean that each transfer will be made into unique social, political and legal and administrative contexts, and will end either in being rejected, or converted into some kind of hybrid, with the consequences generally unpredictable in advance.

Perhaps the most obvious point at which to connect regulatory governance to developmental agendas is through the twin lenses of accessibility and inequality. Many of the liberalising market reforms propose to privatise or marketise basic services such as water, energy, health and education. An emerging literature is beginning to show that these reforms can have damaging effects for poor people, especially where new pricing mechanisms come into play, or where aid donors press governments to reduce or eliminate service-based subsidies (Mitlin 2004a; Cuaresma 2004; Brown and Woodhouse 2004; Bayliss 2002). In the field of regulatory and competition reforms, as in the field of poverty reduction, there is likely to be a fragmented and complex discourse conducted in relatively opaque or rarefied policy environments, the end result being policies that respond to donor and elite group preferences rather than to the needs and preferences of poor people.

3.0 Implications for electricity regulation in India

The overall thrust of this comparative analysis of regulation has been to emphasise that regulatory governance is much more than a technically narrow field in which specific regulators pursue their legal jurisdictions, and focus primarily on questions of pricing and investment. Public services, whether electricity or any other, are designed and delivered in the context of a state which will have developmental social objectives as well as more traditional functions. Inevitably in a developmental state there will also be a major policy focus on social justice, conceived in part as the necessity to provide for the access of the

poorer sections of society to basic goods and services. In this respect, regulators may also be given wider social objectives to meet by ensuring access to and affordability of the services they regulate: food, water, health and energy provision are the most clear-cut cases. This position has been supported, for example by Estache et al (2001) in a study drawing lessons from Latin American experience on the impact on the poor of utilities privatisation. Discussing the idea that one approach could be 'to make the utilities take care of the poor' (Estache et al:2001:1189) they suggest that 'there are actions and decisions within the traditional sphere of activities of a regulatory agency that can enhance tthe benefits that poorer households can obtain from utility reform', that 'regulators can make pro-poor decisions if they are so motivated and if their mandate allows', and that innovative approaches could include 'community participation in the construction and operation oif networks'(ibid:1192).They also maintain that the weaker the regulatory structure, 'the less likely is it that the concerns of the poor will be accommodated'(ibid:1194). Significantly, these authors envisage that pro-poor regulatory policy will reinforce, not replace, broader pro-poor welfare provision.

What the findings on regulation and regulatory governance tell us is that regulators will operate in an unavoidably political arena, and that both bureaucratic and political factors will affect the ways in which regulators can carry out their tasks. Some weaknesses in regulatory systems will be found to be a question of basic institutional weaknesses: poor financial resources, inadequate human resources, conflicting jurisdictions. But the overarching problem is likely to be the existence of political interventions and interactions which amount to 'political capture', linked often enough to the usual kinds of regulatory capture by target groups, and in its worst forms to corrupt practices.

Ample evidence of this kind of political influence is to be found in both developed and developing states.

A recent study provides an interesting insight to how such factors operate in the arena of Indian electricity regulation. The study, by Dubash and Narasimha Rao (2007) is solidly based in three case studies of electricity regulation in Andhra Pradesh, Karnataka, and Delhi. The intention is to examine the idea and practice of independent regulation in the electricity sector. The main findings are:

1. electricity reforms linked to a privatisation process are inherently political : regulators are frequently drawn into conflicts with entrenched interests and

efficiency is sometimes undermined by political resistance, damaging regulatory credibility and weakening 'independence'

2. the regulatory staffing selection process is often the object of political control and intervention, driven by patronage considerations rather than the requirement for efficient, properly qualified and trained staff, leading to a poor outlook for long term regulatory capacity building
3. the broad provisions of the Electricity Act (2003) make for ambiguity in operating procedures, with no guidelines or 'good practice' norms to assist regulatory decision making; though good practice procedures have been developed around key regulatory functions such as investment planning and power purchasing agreements
4. regulators tend to take an 'arms length' approach to scrutiny, making only limited use of their powers and inclined to avoidance of difficult problems: 'well intentioned regulators have stopped short of asking larger questions that potentially place them in conflict with entrenched and politically connected interests' (Dubash and Narasimha Rao,2007: xiii)

The authors identify as key regulatory problems in Indian electricity regulation:

1. deliberate avoidance by regulators of entrenched political interests e.g. agricultural users
2. poor or weak compliance enforcement, where often 'no regulator has been willing to impose a penalty' (ibid:38)
3. regulators present as technical issues what are really political decisions e.g. tariff setting and open access to services but 'this fiction is hard to sustain' (ibid:39)
4. stakeholder participation is weak: 'regulatory procedures for transparency and participation are reasonably sound, but regulation of them is cursory and ineffective' (ibid:41)

Dubash and Narasimha Rao make recommendations for improved regulatory governance which may be relevant to any new project. They recommend an approach which

1. balances all acknowledged interests in any area of electricity provision, and does not just leave the field to political interests
2. ensures that regulation is used as 'an instrument of deliberative governance' rather than in a hands off, risk avoidance way
3. that there should be greater attention to consumer voice institutions, particularly in the start up period of a project
4. and that there should be better procedures on access to documents and data, and appropriate consultation processes

This analysis and its recommendations seem unexceptionable, as does the presentation by Bhattacharyya and Srivastava (2009) of alternative ways of organising activities related to regulatory responsibility for subsidies and tariffs . There remains the possibility that differing

regulators may have conflicts of interest and even of jurisdiction: for example, it could be envisaged that central regulators of electricity may provide constraints to decentralised, off-grid systems and their own regulators. Moreover, regulators may often be regional government agencies, local government bodies, or internal units of central ministries, which raises considerable doubt about the possibilities of 'independent' regulation: for example a World Bank study of concessions in rural electrification in six countries in Latin America and Africa indicates that initially the 'regulator' was in all except one case part of central, provincial or local government (Martinot and Reiche:2000).

3.1 Towards a Policy Model

An interesting attempt is made in a World Bank report (Reiche et al 2006) to construct on the basis of several international case studies a model of policy and practice for regulation in the electrification sector: this model is said to have particular application to rural electrification. The report begins with two 'golden rules of regulation'

1. what matters are outcomes(i.e. rural electrification) rather than rules
2. the benefits of regulation must exceed the costs.

The report lays out the following principles

1. light handed and simplified regulation
2. provision for the regulator to contract out or delegate regulatory tasks to other government or non-governmental entities
3. provision for the regulator to vary the nature of regulation depending upon what is being regulated
4. the establishment of quality-of-service standards that are realistic, affordable, enforceable and capable of being monitored

The first principle (light handed regulation) is said to be essential for off-grid operators for whom the costs of regulation may be crucial in determining commercial viability. The approach is said to hold good regardless of whether the regulated enterprise is privately, publicly, or community owned. The second principle rests on the idea that 'executive' bodies such as, for example, a rural electrification agency could be made responsible for traditional regulatory functions because of the advantages of specialised knowledge, and because there are likely to be closer working relationships with the regulated entities. The third principle wishes to move away from the notion that one regulatory method fits all

circumstances, so allowing considerable variation according to the types of organisations which fill the regulatory space. The fourth principle emphasises the neglect in regulatory systems of quality of service issues and permits variations in quality between customer categories or geographic areas.

This approach, it is suggested, can be formulated through a model law incorporating a number of standards about regulatory methods, tariff setting, subsidies, quality-of-service, inter-agency coordination and model information provision. The authors of the report are at pains to emphasise a) that this proposal is based upon the examination of experiences with a number of experiments in off-grid electrification and b) that these are not necessarily 'best practices' but may better be described as 'emerging practices'.

It is worth noting that most of the examples are based in Latin America, which leads to the comment in the foreword to the report that 'the principles accompanying examples and the model law are equally relevant for Africa and Asia'(Reiche et al,2006:1). This is an extraordinarily speculative assumption, given the significance in regulatory literature attached to cultural, national, and regional variations. The report gives considerable weight to the construction of a model law, but fails to acknowledge that there are considerable differences between Latin American legal systems and practices and those of Africa and Asia, regions which also exhibit significant internal differentiation of legal principles and practice related to histories of path-dependent political and legal development.

But there is a genuine attempt in this approach to recognise the needs for a hands-on, decentered approach to regulatory design in relation to rural electrification, and we may note that this approach to some degree falls under the categories of both responsive and smart regulation discussed earlier in this paper. Of some interest is the support for community-centred management both of the provision and regulation of rural electricity. This by no means a novel approach as indicated by Foley's advocacy nearly two de cades ago of the merits of attention to institutional design which considered such alternatives as separate rural electrification agencies, rural electrification cooperatives, and local community management.(Foley:1992). But a problem here that needs further examination is the opportunities such an approach might engender for regulatory (indeed, political) capture. There also needs to be more attention to the possible effects of the 'golden rule' that costs must not exceed benefits, for this may lead to the exclusion from access of those(the poorest) who have most need of it; the case for subsidy of such provision, and its regulation, should not go by default (see Mitlin 2004b for a discussion of the pros and cons of subsidies to ensure accessible and affordable public services for poor communities: a case

is also made in Esatche etal:2000 for consideration of the merits of expansion as opposed to consumption subsidies in the utilities sector as an integral component of general social welfare provisions by government).

What is rarely articulated in discussions of specific economic reforms and their regulatory relationships is the need to incorporate into any account the interactions with other policy areas in specific socio-geographical settings. If we are looking at a remote rural area, we should not only define and analyse the economic institutions and regulatory structures operating in the area (the 'regulatory space'); we must also delineate other economic and social policy actions and initiatives taking place in that area, and the administrative and political structures associated with them('the policy space'. When we merge our accounts of regulatory space and policy space, we will then understand what already exists in terms of structures and processes, and can estimate what will be the effects on existing situations as a result of new initiatives and changes. In short, any new initiative is introduced into a set of existing institutions, processes and impacts, and the problems to be encountered in this respect must and can be anticipated. A key area of concern here will be the effective operation and coordination of responsible institutions, both at design and implementation stages of the policy process: for example, in general terms, a World Bank survey of its financing of rural electrification noted that where ratings were unsatisfactory (in about one third of cases) the principle reason was poor institutional performance (World Bank:2003): while a detailed country study of community based rural electrification (Kenya) drew as a principal lesson the need for rural electrification policy to be coordinated with other infrastructure development efforts (Kirubi et al:2008).

4.0 Conclusion

The literature surveyed above suggests that the following elements of evidence-based regulatory design should be incorporated into a model for regulatory governance of off- grid rural electrification

1. a delineation of the 'regulatory space' for any specific supply proposal
2. which means a process of institutional mapping inside that regulatory space
3. this to include identification of all public, private, or non-government bodies involved, to assess the possibility of regulatory 'overload', conflicts of jurisdiction, or duplication
4. and the designation of all 'stakeholders' in the supply and regulation system
5. which should also incorporate political interests, insofar as these can be identified

6. the model must also delineate the 'policy space', within which other policy systems, agencies and actors will be operating
7. particular emphasis to be placed upon the identification of community groups which might provide the basis for schemes of local or community management

This approach will provide the evidence on which regulatory design and regulatory choices related to infrastructural innovation can be based.

References

Ayres,I. and J.Braithwaite (1992) *Responsive Regulation: Transcending the Regulation Debate* Oxford, Oxford University Press

Baldwin,R.and J.Black (2007) *Really Responsive Regulation* LSE Law, Society and Economy Working Papers 15/2007 Department of Law, London School of Economics and Political Science

Bastakoti, B (2006) 'The Electricity-Livelihood Nexus: Some Highlights from the Andhikhola Hydroelectric and Rural Electrification Centre (AHRAC)' *Energy for Sustainable Development* 10,3:26-35

Bayliss,K. (2002) *Privatisation and Poverty: the Distributional Impact of Utility Privatisation* Working Paper No 16 CRC University of Manchester Manchester

Bhattacharyya,S.C., AND I.Srivastava(2009):'Emerging regulatory challenges facing the Indian rural electrification programme', *Energy Policy* 37:68-79

Black,J.(2002) *Critical Reflections on Regulation* Discussion Paper No 4, Centre for Analysis of Risk and Regulation, London, LSE

Braithwaite,J (2006) 'Responsive regulation and developing economies' *World Development* 34,5:884-898

Braithwaite,J., (1999) 'Accountability and governance under the new regulatory state', *Australian Journal of Public Administration* 58,1:90-97

Brown J. and P.Woodhouse (2004) *Pioneering Redistributive Regulatory Reform: a Study of the Implementation of a Catchment Management Agency in Inkomati Water Management Area, South Africa* Working Paper No 89 CRC University of Manchester Manchester

Carino,L.(2004) 'Regulatory governance in the Philippines: a profile' , in Minogue and Carino eds (2004): 256-76

Cook, P. and M. Minogue, (2003): 'Regulating for Development', *Insights* 49 ID21, Institute of Development Studies, University of Sussex

Cook,P., C.Kirkpatrick, M.Minogue and D. Parker eds (2004) *Leading Issues in Competition, Privatisation and Regulation* Edward Elgar, Cheltenham

Cuaresma,J. (2004) *Pro-Poor Water Regulation in Metro Manila; In Search of Greater Equity* Working Paper No 81 CRC University of Manchester Manchester

Dubash N.K. and D.Narasimha Rao (2007): *The Practice and Politics of Regulation:Regulatory Governance in Indian Electricity* National Institute of Public Finance and Policy, Macmillan India

Estache,A.,A.Gomez=Lobo and D.Leipziger(2001):'Utilities privatisation and the poor:lessons and evidence from Latin America', *World Development* 29,7:1179-98

Foley,G.(1992)'Rural electrification: the institutional dimension' *Utilities Policy* October 1992:283-289

Granovetter,M (1985) 'Economic action and social structure: the problem of embeddedness', *American Journal of Sociology* 91,3:481-510

Guasch, J.L. and R.W.Hahn (1999) 'The costs and benefits of regulation: implications for developing countries' *The World Bank Research Observer,* 14,1:137-58

Gunningham, N., and B.Grabovsky (1998) *Smart Regulation* Oxford, Clarendon Press

Haanyika,C,.,(2006):'Rural electrification policy and institutional linkages' *Eneregy Policy* 34:2977-2993

Hansher,L. and M.Moran (1989) : *Capitalism, Culture and Regulation* Oxford, Oxford University Press

Harrison,G. (2001): Post-Conditionality politics and administrative reform: reflections on the case of Uganda and Tanzania' , *Development and Change* 32: 657-79

Harriss-White,B., and G.White (1996) 'Corruption, liberalisation and democracy' IDS Bulletin27,2:1-5

Hood,C.(1998) :*The Art of the State: Culture, Rhetoric, and Public Management* Oxford, Oxford University Press

Hood,C.(1976): *The Limits of Administration* London, John Wiley.

Hood, C. and J. Scott. (2000): *Regulating Government in a 'Managerial ' Age: Towards a Cross-National Perspective,* Discussion Paper No 1, Centre for Analysis of Risk and Regulation London School of Economics and Political Science,London

Hood, C., O. James, G. Jones and T. Travers (1999): *Regulation Inside Government: Waste-Watchers, Quality Police, and Sleaze-Busters* Oxford, Oxford University Press

Khan,M. (2003): 'State failure in developing countries and strategies of institutional reform' Paper to the World Bank ABCDE Conference, Oslo, June

Kirkpatrick,C., and D.Parker eds (2007)*Regulatory Impact Assessment:Towards Better Regulation?* Edward Elgar Cheltenham

Kirubi,C., A.Jacobson,D.Kammen and A.Mills(2009):'Community-based electric micro-grids can contribute to rural development:evidence from Kenya', *World Development,*37,7:1208-1221

Knight-John, M. (2007) 'Regulatory impact assessment: a tool for improved regulatory governance in Sri Lanka' in Kirkpatrick and Parker eds (2007):190-200

Knight-John,M.(2004) 'Competition, regulation and regulatory governance in Sri Lanka' in Cook et al(2004):277-94

Levy, B., and P. Spiller(1996) *Regulation, Institutions and Commitment: Comparative Studies of Telecommunications* Cambridge, Cambridge University Press

Levy,B. and P.Spiller (1994) 'The institutional foundations of regulatory commitment: a comparative analysis of telecommunications regulation' *Journal of Law, Economics and Organisation* 10,2: 201-46

Majone,G. (1999)'The regulatory state and its legitimacy problems' *West European Politics* 22,1:1-24

Majone,G. (1997) 'From the positive to the regulatory state; causes and consequences of the changes in modes of governance' *Journal of Public Policy* 17,2:139-67

Majone,G (1996) *Regulating Europe* London, Routledge

Martinot,E. and K.Reiche (2000): *Regulatory Approaches to Rural Electrification and*

Renewable Energy:Case Studies from Six Developing Countries Workingf Paper, Washington, DC, World Bank

McCourt W. and M. Minogue eds (2001) *The Internationalisation of Public Management: Reshaping the Third World State* Cheltenham Edward Elgar

McGregor,L., T.Prosser and C.Villiers eds (2000) *Regulation and Markets Beyond 2000*

Ashgate

Minogue,M.(2001a) *Governance-based Analysis of Regulation* Working Paper No 3, Centre on Regulation and Competition, University of Manchester, Manchester

Minogue,M.(2001b) 'Should flawed models of public management be exported? issues and practices' in McCourt and Minogue eds (2001):20-43

Minogue,M. and L.Carino eds(2006) *Regulatory Governance in Developing Countries* Edward Elgar, Cheltenham

Mitlin,D. (2004a) ' Competition, Regulation and the Urban Poor' in Cook et al (2004):320-38

Mitlin, D. (2004b) 'Beyond second best: the whys, hows and wherefores of water subsidies' Paper to CRC International Conference, Cape Town, September 2004

Moran,M.(2002) 'Understanding the British regulatory state' *British Journal of Political Science* 32,391-413

Muller,K (2004) 'The institutional and policy framework for regulation and competition in South Africa' in Cook et al (2004):237-55

North, D (1999) *Understanding the Process of Economic Change* Occasional Paper No 106 , London, Institute of Economic Affairs

North,D.(1991) 'Institutions' *Journal of Economic Perspectives* 5,1:97-112

North,D (1990) *Institutions, Institutional Change and Economic Performance* Cambridge University Press, USA

OECD (1997): *Regulatory Impact Analysis: Best Practices in OECD Countries* Paris, Organisation for Economic Cooperation and Development.

Ogus,A. (2004): 'Corruption and regulatory structures' *Law and Policy* 26:329-46

Ogus,A.(2002) 'Regulatory institutions and structures' *Annals of Public and Cooperative Economics* 73,4:627-48

Ogus A (1994) *Regulation: Legal Form and Economic Theory* Oxford, Clarendon Press

Ramamurti,R.,(1999): 'Why haven't developing countries privatised deeper and faster?' *World Development* 27,1:137-55

Reiche, K., B. Tenenbaum and C. Torres (2006): *Electrification and regulation: principles and a model law* World Bank Energy & Mining Sector Board Discussion Paper No 18 World Bank Washington DC

Rhodes, R. (1997). *Understanding Governance*. Buckingham: Open University Press

Smith,T.B. (2003): 'Privatising electric power in Malaysia and Thailand: politics and infrastructure development policy', *Public Administration and Development,* 23,3:211-96

Stern, J and J Cubbin(2005) *Regulatory Effectiveness: the Impact of Regulation and Regulatory Governance Arrangements on Electricity Industry Outcomes* World Bank Policy Research Working Paper No 3536, World Bank Washington DC

Stirton,M., and M.Lodge (2002) *Embedding Regulatory Autonomy :the Reform of Jamaican Telecommunications Regulation 1998-2001* Centre for Analysis of Risk and Regulation, Discussion Paper No 5, London School of Economics and Political Science

Therkildsen,O. (2000) 'Public sector reform in a poor aid-dependent country: Tanzania' *Public Administration and Development* 20:61-70

Wilks ,S. (1996)'Regulatory compliance and capitalist diversity in Europe' *Journal of European Public Policy* 3:536-59

World Bank(2008): *The Welfare Impact of Rural Electrification* Washington, DC, World Bank

World Bank (1995): *Bureaucrats in Business: the Economics and Politics of Government Ownership* Oxford, Oxford University Press

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OASYS South Asia project

The Off-grid Access Systems for South Asia (or OASYS South Asia) is a research project funded by the Engineering and Physical Sciences Research Council of UK and the Department for International Development, UK. This research is investigating off-grid electrification in South Asia from a multi-dimensional perspective, considering techno-economic, governance, socio-political and environmental dimensions. A consortium of universities and research institutes led by De Montfort University (originally by University of Dundee until end of August 2012) is carrying out this research. The partner teams include Edinburgh Napier University, University of Manchester, the Energy and Resources Institute (TERI) and TERI University (India).

The project has carried out a detailed review of status of off-grid electrification in the region and around the world. It has also considered the financial challenges, participatory models and governance issues. Based on these, an edited book titled "Rural Electrification through Decentralised Off-grid Systems in Developing Countries" was published in 2013 (Springer-Verlag, UK). As opposed to individual systems for off-grid electrification, such as solar home systems, the research under this project is focusing on enabling income generating activities through electrification and accordingly, investing decentralised mini-grids as a solution. Various local level solutions for the region have been looked into, including husk-based power, micro-hydro, solar PV-based mini-grids and hybrid systems. The project is also carrying out demonstration projects using alternative business models (community-based, private led and local government led) and technologies to develop a better understanding of the challenges. It is also looking at replication and scale-up challenges and options and will provide policy recommendations based on the research.

More details about the project and its outputs can be obtained from www.oasyssouthasia.dmu.ac.uk or by contacting the principal investigator Prof. Subhes Bhattacharyya (subhesb@dmu.ac.uk).

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