UNIVERSITY FOR PEACE

UNIVERSIDAD PARA LA PAZ

Environmental Security

Thesis

Sergio Guillén

Reshuffling Democracy:

Exploring Deliberative Environmental Governance in Costa Rica's Electric Sector

January 2009

This thesis is submitted in partial fulfillment of the requirements for the degree of Master of Arts, Environmental Security

This thesis comes as an integration of many years of “on the job training” about the issues of energy governance, enriched in many ways by fellow activists in the environmental advocacy world, and by business associates in the green enterprise development sector. Not only did I professionally grow immensely through the opportunity to learn from them, but I also learned to watch the issue from more than one side only because they were willing to have patience with me and with my (at times annoying) tendency of always trying to looking at things from different perspectives.

This thesis was also made possible by the flexibility and patience of many UPEACE faculty members, who allowed me to wander off in my course assignments and explore atypical themes like environmental discourse analysis, deliberative democracy and integral theory. Professors Rolain Borel, Mahmoud Hamid, Tom Deligiannis, Ronnie de Camino, David Hoffman and Miriam Villela supported my curiosity and stubbornness in undertaking this complex subject in too many ways to mention. Professor Christopher Riedy has honored me by agreeing to be an external reader of this document.

The wonderful photographs in the cover of this document were taken by **Eugenio Guido Pérez** and **Ileana Martínez Elizondo**.

All the eleven participants in the Q-Methodology study were extremely supportive and insightful. I cannot thank them enough for their generosity and kindness in agreeing to be a part of this research. I can only hope to repay their consideration by continuing to pursue my work on environmental democracy in order to make the electricity sector more just, effective and once again deserving of the pride with which all Costa Ricans hope to view this field of endeavor.

My fiancée Jenny with her tenderness and understanding, my family with their prayers, my friend Kimberly Rafuse with her solidarity, my friend Franklin and all my friends and colleagues at Funpadem with their support and encouragement, have been instrumental in keeping me healthy, sane and productive over the past two years. The resolution to see this project through is in great part my tribute to my ancestors: my grandfather Rafael A. Grillo O., my father Marco A. Guillén S., and my “spiritual ancestors” Oscar Fallas, María del Mar Cordero and Jaime Bustamante. They were taken from us too soon, they were selfless in their dedication, and they gave their lives and souls to bring forth a better world.

ABSTRACT

For the past decade, Costa Rica has faced increasing polarization between the social stakeholders supporting and opposing its dominant model of electricity development. This has resulted in many infrastructure projects being halted, as well as in increased oil dependency and loss of social legitimation of the sector's institutions. The present study explores the potential contribution that deliberative democracy can make to improving governance by promoting greater mutual understanding and shared responsibility in formulating solutions to the current deadlock.

The study approaches the potential contribution of deliberative democracy from a normative and integral perspective (building on the work of Ken Wilber). A historical survey is made of role of social capital in the governance of the electric sector over its 125 year life span in Costa Rica. The research is also complemented with a field assessment of the level of pluralism of stakeholders in the sector, using a Q-Methodology approach. This analysis allows the categorization of a number of outlooks that have meaningful characteristics and predominant interests among the 10 participants interviewed.

The study also reveals that, although a foundation for dialogue can be recognized in past consensus-building experiences, there is a crucial need to transcend "expert" mediated and technically focused discussions and to incorporate new ways of metacommunication that explore the prevalent symbols and rhetoric concerning the issues, recognize the existence of common values and principles among stakeholders on opposing sides, and jointly generate new understanding that has credibility for both sides.

Keywords:

Environmental security, deliberative democracy, environmental governance, Costa Rica, hydroelectricity, electricity, policy, social movements, Q-Methodology, Integral Theory, sustainable development, conflict resolution

RESUMEN EJECUTIVO

A lo largo de la última década, Costa Rica ha enfrentado una creciente polarización entre los actores sociales que apoyan y aquellos que se oponen al modelo dominante de desarrollo eléctrico. Esto ha conducido a que muchos proyectos de infraestructura fueran detenidos, que el país haya incrementando su dependencia del petróleo y reducido la legitimación social de las instituciones del sector. El presente estudio explora la contribución potencial que la democracia deliberativa puede ofrecer para mejorar la gobernanza a través de promover mayor comprensión mutua y responsabilidad compartida por generar soluciones para el actual impasse.

Esta investigación aborda la posible contribución de la democracia deliberativa desde una perspectiva normativa e integral (basándose en el trabajo de Ken Wilber). Se realiza una revisión histórica del papel del capital social en la gobernanza del sector eléctrico durante sus 125 años de existencia en Costa Rica. Este trabajo de investigación histórica es complementado con trabajo de campo del grado de pluralismo de los actores relevantes del sector, utilizando la Metodología Q como instrumento para la indagación. Este análisis permite categorizar una serie de perspectivas las cuáles tienen características significativas e intereses predominantes entre los 10 participantes entrevistados.

Los resultados de esta investigación revelan además que, a pesar que pueden mencionarse antecedentes de actividades de generación de consensos, existe aún una necesidad vital de trascender las discusiones mediadas por los “expertos” y enfocadas en aspectos técnicos e incorpora nuevas formas de metacomunicación que exploren los símbolos y la retórica relevante respecto a esta temática, que permitan reconocer la existencia de valores y principios comunes entre actores que asumen posiciones contrarias, y generar conjuntamente nuevo conocimiento que tenga credibilidad para los actores en ambos lados del debate.

Palabras clave:

Seguridad ambiental, democracia deliberativa, gobernanza ambiental, Costa Rica, hidroelectricidad, electricidad, políticas, movimientos sociales, Metodología-Q, teoría integral, desarrollo sostenible, resolución de conflictos

LIST OF ACRONYMS

ARESEP	Autoridad Reguladora de los Servicios Públicos
APRA	Alianza Popular Revolucionaria Americana
CCSS	Caja Costarricense del Seguro Social
CNFL	Compañía Nacional de Fuerza y Luz
DR-CAFTA	U.S.-Dominican Republic-Central America Free Trade Agreement
DSE	Dirección Sectorial de Energía
EBASCO	Electric Bond & Share Company
ECLAC	United Nations Economic Commisison for Latin America and the Caribbean
ESPH	Empresa de Servicios Públicos de Heredia
GDP	Gross Domestic Product
ICE	Instituto Costarricense de Electricidad
IMF	International Monetary Fund
JASEMH	Junta Administradora del Servicio Eléctrico Municipal de Heredia
JASEC	Junta Administradora del Servicio Eléctrico Municipal de Cartago
MINAE	Ministerio de Ambiente y Energía
MIDEPLAN	Ministerio de Planificación Nacional y Política Económica
SIEPAC	Sistema de Interconexión Eléctrica de América Central
SNE	Servicio Nacional de Electricidad
P set	Participant set
PPA	Power Purchase Agreement
PPP	Plan Puebla Panama
U.N.	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
UPEACE	University for Peace
U.S.	United States of America

CONTENTS

LIST OF ILLUSTRATIONS

LIST OF TABLES

CHAPTER I

RATIONALE

The Costa Rican power sector is facing a deadlock that prevents the country from articulating a coherent, legitimized and sustainable electricity governance strategy. The standoff between social movements, on the one hand, and government planners and public and private generation companies, on the other, has been building up for close to a decade, and gained momentum in 2000, as a result of popular protests that successfully prevented Congress from passing a legal Bill promoting institutional reform and partial privatization of the Instituto Costarricense de Electricidad (ICE), the state owned electricity and telecommunications utility. In the specific case of the electric system, the main points of contention are the construction of new hydroelectric projects and the participation of the private sector in energy generation.

While social opposition has been successful in preventing or delaying several hydroelectric projects, through diverse tactics that include roadblocks, municipal plebiscites, and Constitutional appeals (Programa Estado de la Nacion, 2005, p. 218), no substantial efforts have been made to promote a viable clean substitute or to substantially reduce consumption. This situation, combined with subsidiary factors (such as the delays in commissioning of a planned thermal power plant), has led to rising electricity deficits for 2006-2008. In April of 2007, the deficit had critical consequences

when power shortages required daily nationwide blackouts of up to five hours for nearly three weeks (Avalos, 2007, paragraph 14).

As an adaptation to this crisis, energy planners are relying more on electricity imports, on the leasing of privately-owned diesel generators, and on the construction of more fossil-fuel based power plants in their forecasts. (Instituto Costarricense de Electricidad [ICE], 2006, p. 40). From an energy and environmental security perspective, this not only leads to an increased national carbon footprint, due to expanded fossil-fuel generation, but it also reduces the utility's capacity to adapt to weather fluctuations (like reduced rainfall regimes) or accidental downtime.

However, the broader context of the conflict also offers reasons to be hopeful about the possibility of leading the debate towards less polarized interactions. The current administration's commitment to steer Costa Rica on the path of becoming first country to generate all its electricity from renewables by 2021 (Ministerio de Planificación Nacional y Política Económica, 2007, p. 81) creates pressures (whether the government acknowledges it or not) to address communal concerns in order to gain support for some hydroelectric plants, given the effectiveness of opposition thus far.

Another encouraging sign is the presence of critical reflection in some of the views held by environmental activists, regarding the fact that despite all of the movement's accomplishments, more attention needs to be paid to the construction of alternatives (Castro, 2005, p. 48). A third hopeful element is the occurrence of past multi-

stakeholder collaborative interactions in environmental governance, of which the most relevant to the issue at hand was the consensus process carried out in 2002-2004 to produce a draft Water Resources Law Bill. (Aguilar, Alvarado, Astorga, Avendaño, Blanco, Mora-Portuguez, et. al., 2004, p. 11).

Recognizing the fundamental role of inter-group dynamics and institutional barriers in perpetuating this conflict, this research seeks to explore how a particular stream of democratic practice, deliberative democracy, can contribute to the recognition of mutual concerns and to the creation of a space for the outlining of solutions. By centering on communicative action, fuller participation, and reasonable understanding of others' perspectives (rather than on the mere aggregation of interests) deliberative approaches emphasize elements generally neglected in habitual power sector institutional arrangements (Farrelly, 2004, p. 3).

The present Thesis takes an exploratory approach to understanding the possible role and the underlying complexities to the application of deliberative principles in the Costa Rican electricity sector. The specific questions it explores are: *what value can deliberative democracy offer to environmental governance in Costa Rica*? and *what are the main complexities and obstacles to deliberation in the context of the Costa Rican power sector*?

In approaching these questions, both normative and empirical elements are incorporated. With regard to the first question, the research touches on the emerging

(mostly normative) democratic theory about the effects of deliberation as well as on its contextualization to (primarily empirical) observations about the country and sector. The objections to deliberative approaches, such as claims that under certain conditions they may exacerbate polarization (Steenbergen et al., 2004, p. 17) are also taken into consideration in this analysis.

For the second question, theoretical and intuitive assumptions about pluralism in democratic, environmental and energy sustainability premises are probed empirically. Finally, the research will seek to identify significant gaps between the requirements for the take-off of deliberative processes and the current juncture of the country's power sector.

The objectives that will guide this research will therefore be:

a) To assess the potential value of deliberative democracy's contributions to environmental governance in Costa Rica, with a focus on the electricity sector by:
    i. analyzing from a normative and integral standpoint the transformations in governance dynamics promoted by deliberative practice; and
    ii. surveying the governance dynamics of the electricity sector in historical perspective, in order to trace past and present democratic interactions and to identify elements of the opportunity structure for future deliberative processes.
b) To ascertain the main complexities and obstacles associated with the possibilities for deliberation in the country's electricity sector by:

i. probing multi-stakeholder perspectives about democratic and environmental principles and about the pertinent actions for energy sustainability, in order to better understand the range of worldviews and complexities associated with this issue; and
ii. identifying major gaps between the requirements for deliberative action and the power sector's current situation, using a four-quadrant (experiential, cultural, behavioral, & systemic) integral framework.

The undertaking of this thesis has entailed several limitations. The potential for deliberative democracy in environmental governance is an entirely novel field of study in the country. There has been no previous scholarly work on this subject in Central America and even the themes of dialogue and participation are highly strained subjects given the current level of polarization affecting the electric sector.

The use of Q Methodology for a study on political perceptions and governance has also been entirely experimental, since there are no prior instances of using this methodology in the country. Q-sorting is a highly conceptual exercise, which has constrained the viability of using this methodology to only participants who are fully literate and feel sufficiently comfortable discussing the subjects of democracy and sustainability at the "cosmopolitan" levels of discursive abstraction required by this exercise. This prevented the study from including some important viewpoints, such as those of indigenous community leaders. The novelty and oddness of the method prompted one of the

participants who granted me an appointment to decline to perform the Q-sorting exercise and offer a conventional semi-structured interview instead.

Time constraints and limited possibilities to undertake fieldwork also reduced the sample of participants who could be approached to perform the Q-sorts. Furthermore, the timing of the fieldwork stage for this study also made the availability of the most suitable participants very difficult, since the most engaged participants on either side of the issue were involved in campaigning for the DR-CAFTA referendum[1].

Despite these limitations, this study has attempted to break new ground in the study of environmental democracy in the country, by assessing the dynamics of governance over the entire 125-year lifespan of a vital environmental and socio-economic activity (electricity generation) and exploring the personal perspectives of relevant stakeholders. It has sought to introduce new frames for understanding the issues in broader terms than those currently dominating the current "pro and con" debate about dams and private sector participation in electricity generation.

The theoretical segment of this study begins in the next chapter with a review of the main conceptual developments on environmental governance and deliberative democracy, focusing on four specific concepts: governance, deliberation, legitimation

[1] The DR-CAFTA Referendum was a popular democracy initiative approved by the Costa Rican Electoral Tribunal which allowed Costa Rican citizens to decide by popular vote whether to accept or reject the Bill that turned into Costa Rican law the Free Trade Agreement between the United States, the Dominican Republic and five Central American countries (Guatemala, Honduras, El Salvador, Nicaragua and Costa Rica). The vote was held on October

and generative politics. Chapter 3 then describes the methodological approaches being used in this investigation.

The subsequent four chapters address each of the outlined objectives in turn: the normative analysis of the possible contributions of deliberation to environmental governance for the electricity sector (Chapter 4); the historical overview of the governance dynamics of the electricity sector (Chapter 5); the exploration of plurality and complexities in stakeholders' perspectives (Chapter 6); and the observed gaps between the requirements for deliberation and the current conditions of the power sector (Chapter 7). The final chapter presents the integrated conclusions from the research undertaken regarding the development of deliberative environmental governance in the electricity sector.

CHAPTER II

CONCEPTUAL DEVELOPMENTS IN ENVIRONMENT AND DEMOCRACY: A LITERATURE REVIEW

This chapter reviews the burgeoning body of work by environmental scholars and practitioners on the conceptual integration of environmental governance and deliberative democracy. Four main concepts are examined: environmental governance, deliberative democracy, democratic legitimation and generative politics.

ENVIRONMENTAL GOVERNANCE

Governance has increasingly become a fundamental notion in the study of environmental institutions, resilience, and policy-making. Numerous authors describe a shift "from government to governance" in recent conceptualizations with regards to environmental policy formulation and implementation (Dryzek, 2005, p. 97; Finger-Stich, 2005, p. 44) and a propos the interplay of environmental concerns with economic, social and political considerations (Lemos & Agrawal, 2006, p. 298; Thomson, 2000, p. 105). While this should not be interpreted as negating the important role of governments, it does point to an extension of the decision-making sphere to other relevant actors, and their particular concerns and worldviews.

Diverse definitions of environmental governance denote: (a) institutions and means by which stakeholders influence environmental actions and outcomes[2]; (b) an intrinsic capacity of self-organizing systems[3]; (c) undertakings to alleviate environmental problems[4]; and (d) traditions and institutions within the nation-state through which power over natural resources is exercised[5]. The perspectives about environmental governance can also vary according to the spatial perspective from which it is being viewed, whether global, regional (at the supra-national level), national, regional (at the sub-national level) and local.

While the national scope continues to be the traditional center of environmental policy, many emerging approaches are looking more closely at the supranational or local levels, or even at particular interactions between the local and the global. Supranational approaches (Global and Regional) emphasize the role of transnational constituencies of stakeholders (social movements, networks, epistemic communities) who recognize their interdependence on sensitive resources and thus promote the establishment of international regimes that guide and limit the actions governments can take within and beyond their own territories, as exemplified in the work of Young (2002). *"Place-making"* approaches to governance, on the other hand, contend that it is at the level of

---

[2] Lemos and Agrawal (2006) define environmental governance as "the set of regulatory processes, mechanisms and organizations through which political actors influence environmental actions and outcomes" (p. 298).
[3] Margaret Shannon defines governance as "the capacity of self-organizing systems to govern themselves, [including] not only formal government authorities and agencies, but also an array of private sector and nongovernmental organizations as well as communities" (Shannon, cited in Finger-Stich, 2005, p. 44).
[4] Davidson and Frickel (2004) approach a definition that is purposely general: "attempts by governing bodies or combinations thereof to alleviate recognized environmental dilemmas" (p. 471).
[5] The Foundation for Environmental Security and Sustainability (FESS) defines environmental governance as "the traditions and institutions by which power, responsibility, and authority are exercised over a nation's natural resources" (2007, p. 7).

the local “where everything is connected to everything else” and where social inquiry and institution-building capacity unfolds. (Shannon, 2002, p. 10).

Analysts have also looked at how these different levels are interrelated. For example, in the European context, Finger-Stich and Finger (2003) observe that globalization trends in Europe have generated additional demands on the States’ productivity and threaten their traditional power structure, impelling them in turn to displace local and vernacular forms of resource management in order to secure their authority over and access to the resources required to meet the growing productivity demands (pp. 7-9).

Just as there are different streams in environmental thinking, there are substantial differences in their conceptions about environmental governance. Bäckstrand and Lövbrand (2006) identify what they regard as the three central “meta-discourses” of global environmental governance: ecological modernization, green governmentality and civic environmentalism, in their analysis of carbon-sequestration practices under the Clean Development Mechanism of the Climate Change Convention (UNFCCC) (p. 51).

Ecological modernization argues for the compatibility of economic growth and environmental protection, decoupling the association made by other discourses between capitalist growth and environmental degradation (Bäckstrand & Lövbrand, 2006, p. 52). It advocates the greening of industry and production, formulating a “win-win” scenario, where the benefits of economic globalization support cleaner technologies and more socially and environmentally responsible business practices.

Governance is conceived primarily as a market-driven thrust towards the internalization of environmental costs, whereas the role of government entails "flexible, decentralized, cost-effective and collaborative policymaking" (p. 53). However, there is diversity in the ecological modernization view: a "weak" modernization view, closely aligned with the neoliberal paradigm and not contemplating any significant reformulation of societal institutions[6], and a "strong" or "reflexive" modernization view, which adopts a critical view of dominant policies and institutions and recognizes the need for a significant restructuring of the social dynamics concerning authority, trust and risk allocation (Ibid). The reflexive stream is more closely aligned with the civic environmentalism view that will be discussed ahead, rather than to the more conventional "weak" modernization paradigm.

"Green governmentality", the second "meta-discourse" in Bäckstrand and Lövbrand's classification is associated with "a form of power tied to the modern administrative state, mega-science and big business" (2006, p. 54). From a sociological perspective, this represents the dominant discourse of bio-politics as defined by Michel Foucault, where knowledge and power are used for the control of all forms of life. (Ibid). From a political science perspective, Dryzek (2005) refers to this paradigm as "administrative rationalism (…) a problem solving discourse which emphasizes the role of the expert rather than the citizen or producer/consumer, and which stresses social relationships of hierarchy rather than equity or competition" (p. 75). The mode of governance under this

[6] Under the "weak" framing of ecological modernization, "environmental degradation is seen as a structural problem that can only be dealt with by attending to how the economy is organized, but not in any way that requires an altogether different kind of political-economic system" (Hajer, cited in Dryzek, 2005, p. 167).

discourse has been likened to an “omniscient administrative mind” projecting an aura “of certain knowledge and benign power” (p. 88). It is characterized by the prevalence of expert-driven policy-making, strong managerial bureaucracies and extensive regulatory instruments. (pp. 76-82). Bearers of vernacular knowledge, such as traditional and indigenous communities, are commonly framed as the beneficiaries of policy, but hardly as actors with a stake in its crafting.

“Civic environmentalism” according to the principle of “democratic efficiency”, advocates that those affected by environmental problems should have a voice in finding solutions (Bäckstrand & Lövbrand, 2006, p. 55). It is a problem-solving approach that aims to overcome the “participation gap”, strongly inspired by global environmental values that see the participation of traditionally excluded worldviews as crucial for sustainable development (Ibid). Civic environmentalism generally perceives democratization as central for resolving environmental management problems; but like ecological modernization, civic environmentalism also has moderate and radical manifestations, related to more liberal or radical perceptions of democracy.

The more moderate version corresponds to what Dryzek (2005) identifies as “democratic pragmatism”, which advocates “interactive problem solving within the basic institutional structure of liberal capitalist democracy” (p. 99). It incorporates mechanisms for participation and dialogue including public consultation, alternative dispute resolution, right-to-know laws and lay-citizen deliberation (pp. 101-105). The more radical version is grounded on political ecology perspectives and draws on neo-

Marxist and environmental justice frames. It perceives some of the mechanisms for stakeholder participation and multi-stakeholder agreements as methods for legitimizing power relationships and masking the retreat of the State and the takeover of public-interest resources and services by corporate groups (Bäckstrand & Lövbrand, 2006, p. 57). Radical social movements (labor, anti-globalization, radical green, and feminist organizations) are seen as the only actors that can challenge the inequitable power structures of global capitalism (sustained by international finance and governance bodies) and "multiple and overlapping self-governing communities are needed to replace territorial and nation-state notions of sovereignty" (Bäckstrand & Saward, 2004, p. 24).

One additional discursive stream not referenced directly in Bäckstrand & Saward's analysis is environmental security. Within this discourse, two approaches to governance emerge as most salient. The first approach is primarily concerned with diagnosing or preventing "state failure", in other words, it addresses how a state's authority is exercised to prevent substantial environmental degradation and social unrest. While extreme examples of this discourse mimic the tone of cold war ideology[7], this view does frame, particularly in its more moderate versions, important elements of interdependence between political structures and environmental vulnerability and their implications for social resilience and susceptibility to violent conflict.[8] A second

[7] Such as the quote by Brian Atwood of USAID "(…) Disintegrating societies and failed states with their civil conflicts and destabilizing refugee flows have emerged as the greatest menace to global stability" (Atwood, cited in Ohlsson, 1999, p. 26).

[8] As Homer-Dixon (1999) states in his analysis "(…) the countries with the highest probability of becoming hard regimes, and potential military threats to their neighbors, are large, wealthy developing countries that are dependent

approach is more closely concerned with livelihood security, focusing on the impact of governance dynamics in determining the livelihood strategies that can be devised at the community and household level (Thomson, 2000, p. 105). At the livelihoods sphere of analysis, the over-arching governance structures give shape to particular "governance assets" that communities and households can employ to configure their livelihood strategies; these assets "include, but are not limited to, values, power, legitimacy, decision-making, accountability, knowledge, leadership, organizational capacity, and financing" (Stucker, 2006, p. 124).

Finally, it is worth noting that in some cases certain fields of environmental practice have predominantly adopted a particular view of governance. For example, among international organizations and national agencies in the field of conservation, the conception of governance particularly address relationships of managerial authority among multiple stakeholders, in other words, questions of "who has a say" regarding resource-management. For example, Borrini treats as a central theme of governance the arrangements allocating key management authority whether to central or municipal government bodies, private entities, or local communities; or distributing them collaboratively among several of these stakeholders. (cited in Finger-Stich, 2005, p. 44). A shared "good governance" framework, based on the standards promoted by United Nations and international finance organizations, has also been integrated into the conservation discourse, by establishing a grid of five indicators: legitimacy and voice, direction, performance, accountability and fairness (Graham, Amos & Plumptre,

---

on a declining environmental base but that retain a considerable state capacity and have a history of authoritarianism" (p. 168).

2003, p. 8). However, strong voices within the conservation community have warned against a rigid adoption of a common “good governance” framework advocating a more cautious adaptation to the cultural and social conditions of each setting (Solis, Ayales, Fonseca, Madrigal & Valenzuela, n.d., p. 3).

Additionally, and having special interest to the theme of this thesis, a governance framework for the electric sector has been proposed by the World Resources Institute. The framework conceives governance as “the processes, institutions, and actors that determine how decisions are made – in order to meet the challenges of sustainable energy” (Nakooda, Dixit & Dubash, 2007, p. 1). It implements an extensive indicator toolkit for the assessment of three essential areas: the political system, the accountability relationships (articulated through regulatory systems), and the systems of checks and balances to address particular environmental and social issues (p. 9). The analysis of these three areas incorporates four mainstream indicators of good governance: transparency and access to information; participation; accountability and redress mechanisms; and capacity (p. 8).

Approaches to governance, as we have seen, are diverse. Different perspectives are strongly linked to contested worldviews about the roles that social sectors, economic, and democratic relationships can play in constructing an environmentally sound future. The remaining themes reviewed in this chapter touch on some of the central elements of the debate about governance models: deliberative reformulations of democracy, the

legitimacy decline of traditional sources of authority, and the “generative” model of for rebuilding political trust.

DELIBERATIVE DEMOCRACY

Deliberative democracy is not a monolithic concept, in fact, it has been argued that “there are as many variants of deliberative democracy as there are theorists of it” (Fung, 2005, p. 401). However, all its proponents agree on some basic general principles. It is generally understood that the concept entails a democratic element “which requires that collective decision-making involves everybody affected by a decision or their representatives”, and a deliberative element “which establishes rational and impartial debate as the criterion for political decision” (Elster, cited in Arias-Maldonado, n.d., p. 6). For Young (2000) the deliberative model is rooted in the ideals of inclusion, political equality, reasonableness, and “publicity” (referring to the accountability that is derived from pluralistic, public interaction) (p. 23-25).

Deliberative decision-making therefore does not rely primarily (as it does under conventional liberal democracy) on the aggregation of interests shared by a majority, but instead promotes the “effective participation and mutual enlightened understanding” of the concerns and worldviews of all participants (Farrelly, 2004, p. 3). Because of the emphasis given to mutual communication and understanding, deliberative democracy is advocated as a way to overcome the decline of conventional democratic institutions,

which are often reduced to being “arenas for strategic gamesmanship in which there is no possibility for genuine deliberation” (Baber & Bartlett, 2005, p. 5).

In the context of environmental governance, the leading role of environmental movements in proposing alternatives to the dominant institutional arrangements and group dynamics of aggregative liberal democracy is underscored by new theorists of social networks (Castells, 2001) and environmental peacemaking (Conca, 2006). Castells views the success of environmental movements as largely grounded in their unique capacity to adapt to the emerging conditions of mobilization and communication under the new information paradigm (p. 153), while Conca notes how the movements opposing large hydroelectric project and water privatization in Brazil have succeeded in establishing new norms of “watershed democracy” (p. 171).

Many theorists and activists directly advocate the value of deliberative democracy for environmental politics whether from a normative theoretical perspective (Baber & Bartlett, 2005; Riedy, 2006; Smith, 2003) or based on empirical study of the outcomes from past deliberative experiences in environmental decision-making (Bell, Thompson, Deckers, Brennan & Gray, 2005; Guild, n.d.; Kenyon, Nevin & Hanley, 2003; Lehr, Guild, Thomas & Swezey, 2003; Petts, 2001; Pimbert & Wakeford, 2003; Wakeford & Pimbert, 2004). Smith argues that institutional arrangements under deliberative approaches “will be sensitive to the plurality of environmental values” and “will promote political judgment that takes into consideration different perspectives on the non-human world” (p. 53). Riedy, on the other hand, approaches deliberation as a social practice

supporting the emergence of “worldcentric values” that can enhance the capacity of individuals to “grasp and care about global ecological and social problems other than those that personally impact them or their immediate group” (p. 50).

Baber and Bartlett (2005), in looking at the diverse streams of thought about deliberative democracy, acknowledge that “there have emerged conflicting and contending views about what deliberative democracy permits and demands”, however they assert that “this continuing theoretical project is one of the most promising alternatives yet suggested for bridging the gap between democracy and the environment” (p. 120). Furthermore, after briefly reviewing some recent cases of deliberation, they conclude that “the evidence suggests that decision making that is more inclusive and contemplative is more eco-friendly than conventional interest group liberalism has been.” (p. 232). Although the empirical literature about deliberation has generally lagged behind the larger body of normative theory, there is a growing corpus of studies based on the successful application of deliberative methods in environmental decision making.

These methods include “Deliberative Polls” (Guild, n.d.; Lehr et al., 2003), “Citizen’s Juries” (Kenyon, et al., 2003; Petts, 2001; Pimbert & Wakeford, 2003; Wakeford & Pimbert, 2004), and one-on-one “deliberative exchanges” (Bell et al., 2005). They have been used to promote collaborative understanding and decision making about issues as diverse investment priorities for public electric utilities in Nebraska and Texas (Guild, Lehr et al.), municipal waste management in Great Britain (Petts), defining urban and

rural priorities for environmental planning in Scotland (Kenyon et al.), and communal planning and participatory research for food security in India (Pimbert & Wakeford; Wakeford & Pimbert).

These methods differ in several key aspects, such as the number of participants, the criteria for their selection, the ways of conveying information to them and of facilitating interactions between experts and lay citizens, and the degree of open-endedness of the questions that are asked to inform policy and decision making. However, the research is consistently optimistic about the value of involving non-expert citizens representing the sectors most affected by a policy measure, providing them with opportunities for interacting with and questioning expert "witnesses", encouraging their discussions among peers and ultimately receiving their feedback as a resource that deserves to have direct impact on policy decisions.

As Wakeford and Pimbert state, concerning their citizen's jury experience in India: "there have been frequent calls for democratizing the production of knowledge and policy processes… but relatively few processes have been established that include groups such as farmers, forest dwellers, fishing communities and rural and urban people in the production and sharing of knowledge that affects their lives. In this respect, *Prajateerpu* has generated and validated new knowledge on how policy processes on food and faming might be democratized and shown means whereby official knowledge can be made more accountable to citizens" (2004, p. 30).

Many critical voices have emerged concerning both the normative theoretical formulations of deliberation, and the extent to which the practical experiences to date actually validate the claims of the deliberative model. Johnson (2001) is skeptical about the true effectiveness of "deliberative rationality" in conducing people with opposing interests and political views to change their preferences based on a superior impartial argument. (p. 221). Mutz (2006), on the other hand, is concerned about normative assumptions that equate deliberative attitudes and interactions with greater participation, because they contradict research findings that suggest "that within any given individual, enthusiastic participation rarely coexists with ongoing exposure to diverse political viewpoints and careful consideration of the political alternatives. Deliberation and participation, in other words, do not go hand in hand" (p. 133).

There is also concern about the potential for deliberation to lead to greater polarization under certain circumstances, such as when stakeholders with opposing interest are suddenly made more aware of the extent of their differences, thus "widening the political divisions rather than narrowing them" (Shapiro, 1999, p. 31), or conversely, when like-minded people in an isolated context are encouraged to exchange views, leading to what Steenbergen et al. call "enclave deliberation" whereby more extreme are reinforced (2004, p. 17).

On the other hand, the soundness of the methods and approaches that have been used to validate the assumptions of deliberative theories are also the subject of intense debate. For example, in the case of deliberative polling, Mutz points out that "one

difficulty with drawing causal inferences…is that several independent variables are manipulated at the same time…Unfortunately, it is unclear from research to date whether results are due to the educational efforts associated with the polls, the direct personal attention that political elites give to ordinary Americans during these events, the deliberation among citizens, the extent of cross-cutting conversation during those deliberations, or some other aspect of the forums." (2006, p. 59). Another controversial issue is whether deliberation research should itself embrace a deliberative spirit, encouraging agency and reflection by the research subjects but reducing in the process many of objective constraints on the researcher's interpretation, as Dryzek (2004) suggests, or rather whether methodological design should be aimed at isolating variables and establishing strong causal generalizations about the effects of deliberative action, as argued by Muhlberger (2006) and Steenbergen et al. (2004).

Concerns about deliberation have also been voiced by green political thinkers, primarily rooted in concerns that deliberative institutions might not necessarily embody environmental values, over other human concerns, and about the implicit "human-centeredness of communicative practices". (Smith, 2003, p. 66). While accurate, these two concerns need not detract from recognizing the potential offered by deliberation for addressing environmental concerns. While political communicative interaction may be limited in practical terms to human beings, the potential for representing non-human concerns through discursive interaction still has potential for improving the handing of these issues in the policy arena. (Dryzek, 2000, p. 140). And while deliberation is not meant to impose environmental values over other considerations, it does allow a more

pluralistic space for discussing diverse values at a more egalitarian level, which significantly improves the forum for environmental considerations over the current institutional settings.

DEMOCRATIC AND ENVIRONMENTAL LEGITIMATION CRISES

The notion of a systemic crisis of capitalism originates in critical theory, specifically from the Marxist diagnostic of the contradictions of the capitalist system (economic crises of overproduction and underproduction) [9].

Jürgen Habermas sought to redefine the conception of crisis in critical theory, observing that in modern capitalism, the economic crisis of capitalism did not occur due to the transfer of the Economic system's burdens to the Political Administrative system through the Welfare State. Habermas observed that if it was unable to resolve the functional problems of the economic system, the Political Administrative system would be subjected to a *rationality crisis*, analogous to the crisis of the economic system. However, in Habermas' view, the *rationality crisis* is not inevitable, the State may be able to avert or delay the emergence of these contradictions. However, this situation is bound to lead to a new type of crisis, a *legitimation crisis*, derived from the very interventions of the Political Administrative system in the realm of the Socio-Cultural system. In other words, as the State begins to intervene in new areas of the Socio-

[9] The first contradiction of capitalism, predicted by Marx, emerges "because the worker produces more value that he or she is paid in wages, an economic crisis emerges because of overproduction or overconsumption" (Leff, cited in Marshall & Goldstein, 2006, p. 218). The second contradiction of capitalism was conceptualized by "ecological Marxism" as "based on the limitations imposed by natural resources and leads to a liquidity crisis caused by underproduction" (Foster, cited in Marshall & Goldstein, 2006, p. 219; see also O'Connor, 1998, p. 441).

Cultural system (that had until then been self-regulated through tradition) in order to address the ills generated by the economic system, it creates a new demand for legitimation that had not previously existed, in this way, the State eliminates the conditions of its own prior legitimation (such as the purely formal nature of democracy, the lack of popular participation, self-reflection, and discussion about precisely these policies of State intervention) and creates a condition where it is unable to comply with the plans and objectives it had set for itself. This leads to the withdrawal of legitimation by the people (the Socio-Cultural system) of the power of the Political Administrative system. (E.M. Ureña, 1998, pp. 112-113; Marshall & Goldstein, 2006, p. 220).

Elaborating on the Habermasian conception of a democratic, or Welfare State legitimation crisis, Marshall and Goldstein (2006) have recently proposed the conception of a fourth semi-autonomous system, the Ecological system, and the perception of a fourth type of crisis of capitalism, the environmental legitimation crisis. According to Marshall and Goldstein, the inability of the Political Administrative system to address the degradation of the three functions of the Ecological system: "supply depot, waste repository and living space" (p. 216) and protect the citizenry from the impacts of this degradation, leads to the State's inability to fulfill its legitimation function. They classify three forms in which the perceptions of State failure manifest in the citizenry: *recreancy,* which is the perception that institutional actors "failed to carry out their responsibilities with the vigor necessary to merit the societal trust they covet"; *agency capture*, which reflects "the views of a regulatory agency are more closely aligned with the industry it is supposed to regulate than with the interests of the public";

and finally the proliferation of *grassroots environmental movements* emerging in communities for self-protection due to the increased awareness of instances of contaminated communities (p. 220).

This conception of the environmental legitimacy crisis can be related to the conceptual development by Ulrich Beck, Anthony Giddens, and others, of the notion of the *risk society* and of the resulting emergence of *reflexive modernity*. This line of thought represents the strong or reflexive version of ecological modernization which was referenced in the first section of this chapter. According to Beck (1998), the growing awareness about the emergence of "mega-hazards" created by the new nuclear and chemical industries is transforming the political dynamics of bureaucracies created to ensure the safety of the state and its inhabitants, on the one hand, but now seen as culprit of legalizing previously unseen dangers. This can lead to the "failure of institutions that derive their justification from the non-existence of hazard". (p. 332). Furthermore, this generates an opportunity for a new kind of awareness, whereby

(…) the ubiquity of risk at least makes possible new kinds of democratic politics, where citizens do not accept the authority of states and professional risk apologists working for government or industry. Instead, citizens demand an effective voice in basic decisions about economic and technological development. (Dryzek, 2000, p. 165)

According to Giddens (2001), a central feature of reflexive modernity is the shift from *passive trust*, which is based on tradition or pre-established social roles, to *active trust*, which is de-linked from prior power dynamics, rather it needs to be earned and is much

more dependent on the existing contextual conditions. Since it emerges from a more reflexive population, it both demands more transparency from social relations and helps this transparency to come about. (p. 100). Giddens draws amply from the personal and family dimensions of social life to characterize these changes in cultural relations, thus he uses as illustrative examples of the emergence of active trust the emerging shifts in the social and gender structure of marriage relations, and the increasingly "negotiated" character of parental authority. (pp. 102-103). This shift in the social dynamics of trust consequently drives a shift in the nature of politics in the community and personal sphere. This shift brings new opportunities for building endowing politics with new significance as described in the following section.

GENERATIVE POLITICS

As the emergence of a more reflexive society transforms the way trust is sustained, the political context changes, since as Giddens proposes "individuals have to actively work for trust in their social relations" and "all social relations are negotiable and norms are subject to social practices of scrutiny and reflexive justification". (Boucher, 2001, "Reflexive Modernity – The Dimensions of Globalization" paragraph 15"). The construction of this active trust, according to Giddens (2001) is taking place in the context of *'life politics'*, an emerging framework of politics where decisions that would have previously been based on tradition and established roles are now articulated around choice and identity (p. 97). Giddens maintains that life politics are being generated in diverse contexts and social classes, some of which may not correspond

with what is conventionally thought of as politics. He sees social relations in areas like work, gender, family and nature being transformed by 'life politics' (p. 98).

These life politics become *'generative politics'*, able to generate active trust, when they are conducive to a form of social change "which is not top down but organic and responsive to both local and global issues and which provides opportunities for building active trust, gives autonomy, allocates resources that promote autonomy and attends to the relationship between the political centre and decentralization". (Giddens, cited in Davies, 2005, p. 33). Deliberation is viewed by the scholars of generative politics as a crucial element in the creation of legitimacy and trust and in the transformation of social norms and relations. Giddens, citing British political theorist David Miller, states that deliberation can endow a democratic process with legitimacy when the existence of diverse views (or conflicting interpretations of the right answer to a problem) is recognized, and when the outcome reflects the discussion of all views rather than deriving from a process of discovery of the a single possible right answer. (Miller cited in Giddens, 2001, p. 120).

In the field of environmental governance, Shannon (2002) defines generative politics as "the capacity to create new meaning, new resources, new social organizations, new values and new interests through public deliberation", in contrast with the hegemonic concept of 'implementation' politics that "attempts to secure meanings, resource use claims, interests, values, and organizations through consistent affirmation of their claims" (p. 13).

Deliberation is also seen as vital in building social capital by 'offering an opportunity for public thinking, learning, and action' (Friedman, cited in Shannon, 2002, p. 14). Shannon, whose works focuses particularly on forest management, proposes that meanings in generative politics need to be articulated around the context of actors, and therefore should be rooted in the local sphere since this is the point where all nested geographic levels (the local, the bio-regional and the global[10]) 'come together'; she refers to this as 'place-making' (p. 10). Generative environmental politics are also linked to a more pluralistic model of science, a 'civic science' that provides "a more flexible approach to integrating diverse epistemologies, knowledge sources, beliefs, and values" (Borchers & Kusel, cited in Bagby & Kusel, 2002, p. 1).

> *It should be clear that civic science cannot be simply a device through which citizens are enrolled as helpers in a scientific process. (…) In other words, civic science is not simply citizens doing the procedures of science with the help of scientists. Rather, civic science involves scientists as citizens and citizens as lay scientists in a process in which knowledge production is integrated with and therefore cannot be separated from the enlightenment function of self discovery and the moral effects of political deliberation and choice. (…) Civic science locates the work of science within the community and makes it a part of the regular and necessary life of the community.* (Shannon & Antypas, 1996, p. 68).

---

[10] It is interesting that Shannon's categorization of geographic levels omits the national, since effective deliberation on natural resource issues is often hindered when it is perceived as a threat to the State's ability to retain control over one or more of the following aspects of natural resource governance: policy-making, operation or ownership. (Finger-Stich & Finger, 2003, pp. 9-10).

According to Yankelovich, the three essential duties of the public in a democracy are "public deliberation, coming to public judgment[11], and assuring public accountability of government actions" (Yankelovich, cited in Finger-Stich, 2005, p. 15). Furthermore, an improvement in the quality of deliberation can also improve in the quality of these other two 'public duties' in governance. Public judgment is nurtured when diverse people "explore the values involved in various alternatives and the consequences of the choices they face". (Atlee, 2002, paragraph 16). While accountability is strengthened when the process of deliberation empowers diverse stakeholders and strengthens their social capital.

In this chapter, I have offered an overview of main streams of thought that are influencing the study and the practice of environmental governance, of the new framing taking shape in the green movement regarding the notions of democracy and trust, and of one particular pathway suggested by generative politics for rebuilding trust through governance. In subsequent chapters these elements will be brought together to construct a diagnostic of the governance challenges and a proposed model of deliberative environmental governance that can help address these challenges.

[11] Yankelovich's conception of public judgment represents an improvement in the quality of public opinion, implying that "people have struggled with the issue, thought about it in their own terms, and formed a judgment they are willing to stand by". (O'Donnell, 1993, "Judgment defined and tested" paragraph 1).

CHAPTER III

METHODOLOGY

The present chapter discusses the approach used to inquire into the research objectives. The research questions and objectives touch upon four major themes: (a) the normative premises about the contributions of deliberation to environmental governance; (b) the prospects for deliberation as suggested by the history of Costa Rica's electricity sector; (c) the plurality and complexity of stakeholders' perspectives on democracy, environmental values and sustainable courses of action; and (d) the gaps between the requirements and assets for deliberation.

NORMATIVE PREMISES AND INTEGRAL ANALYSIS

The first element of research involves exploring the premises emerging from modern democratic theory regarding the value of deliberation and framing them within the context of environmental governance. It has already been stated in Chapter 2 that multiple conceptions exist of what environmental governance entails as well as of the beneficial prospects that deliberation can offer to democratic and environmental governance. Several scholarly critiques question the robustness of theoretical models in relation to aspects like cultural patterns, institutional constraints, psychological elements, the degree of interest antagonism, and established power relationships.

In order to respond systematically to the questions that arise from such a plurality of disciplinary foci, the research approach sought is based on the integral framework developed by American philosopher Ken Wilber (2001a, 2001b, 2001c). The integral framework, based on the Integral Theory developed by Wilber, is a comprehensive map for addressing the complexity of phenomena by integrating the study of their external, observable dimensions (behavior and systems) and their internal, subjective dimensions (experience and culture). The characteristic of an integrally-informed approach is not that it claims to master each of these elements, but rather that it attempts to approach reality from an awareness that each of these dimensions are present. Drawing on a particular tool of integral theory, quadrant dynamics, the value-proposition of deliberation to environmental governance will be analyzed from the perspective of four interrelated dimensions: experiential, behavioral, cultural and systemic. (B. Brown, 2006, p. 64).

This framework has already been applied by Riedy (2006) to the study of “deliberation across difference” in relation to the development of an individual and collective awareness in response to global warming (p. 52). For Riedy, environmental deliberation faces a number of constraints from the psychological perspective (cognitive ability, values, morals, self-identity, etc), from the cultural perspective (different discourses and worldviews), from the behavioral perspective (types of communicative exchanges and interactions), and from the systemic perspective (ecological, economic, social, political and technological dynamics) (p. 52). Since Riedy’s approach is

motivated by his interest in sustainable future studies, his integral analysis of deliberation focuses on the preconditions for the emergence of a global collective in response to global climate change.

HISTORICAL ANALYSIS AND OPPORTUNITY STRUCTURE

Once a normative view of the value of deliberation has been explored from multiple perspectives, the next step involves studying the context of the particular sector where deliberation is to be applied. This will be addressed through a historical analysis of the governance dynamics of the electricity sector. Rather than simply providing a historical account of the sector's development, this study will be steered towards evaluating the political construction of social capital in the governance of electricity, in order to assess the opportunities for deliberation.

This articulates the notion of opportunity structure as commonly used in social movement analysis in the sense of "consistent – but not necessarily formal or permanent – dimensions of the political environment that provide incentives for collective action by affecting people's expectations for success and failure" (Gamson and Meyer, cited in Tarrow, 1998, pp. 76-77). The factors taken into account can be structural, such as: the degree of openness of the political system, the stability of alignments of power, divisions among ruling elites, and availability of elite support; or they can be socio-cultural, such as: societal legitimacy, media frames, the strength of

networks, and the salience of social and economic hierarchies. (Morgan, 2006, pp. 11, 25).

Furthermore, it uses the conception of "political construction" made up of three elements: political opportunity, social energy and ideas, and the process of 'scaling up' social movement organization and representation (Fox, 1997, p. 121). Thus, political construction provides a frame for studying the perspectives for the emergence of environmental deliberative processes in Costa Rica.

Since a movement advocating deliberative democracy has not yet taken shape in the country's environmental or social sectors, the construction of political capital, including the use of the three categories of opportunity structure, social ideas and potential for 'scaling up' of social energy would appear to be a suitable frame for evaluating both the characteristics of the social actors and the exogenous circumstances that might support the space for the emergence of such a movement.

CONCOURSE THEORY AND Q-METHOD ANALYSIS OF DEMOCRACY AND SUSTAINABLE ENERGY WORLDVIEWS

The third step of the research process involves interaction with electricity sector stakeholders. In this stage, it is necessary to address the complexities of approaching the theme of deliberation in a setting where it has been preliminarily perceived that the attitudes and context of political interaction have not been conducive to deliberation in

the past. Furthermore, the goal in undertaking the research is to take a research approach that resonates as closely as possible the values that underlie deliberative democracy.

The research design therefore intends to apply deliberative values in the establishment of relationships between the researcher and the subjects, and among the subjects. This places a strain on the research instrumentation, since it means forgoing or reframing many practices and standards of positivist research design and experimentation. For example, means of inquiry that disguise the intent of questions from respondents, or extremely narrow ranges of choices are to be avoided because they work against agency and reflection, and as Dryzek (2004) has pointed out, they have a tendency to "infantilize" the subject (p. 5). Alternately, more open-ended methods are sought, while seeking to rely on theoretical constraints and on the products of the deliberation themselves in order to constrain the researcher's interpretation of the data.

The following outline provides a basic description and justification of the steps and data collection methods followed in the investigation.

A. *Identification of the Concourse of Ideas and statement generation for the Q Methodology*

Q Methodology is a technique used for measuring human subjectivity, by employing "subjective viewpoints to construct typologies of different perspectives" (Steelman & Maguire, n.d., What is Q-Methodology? section, para. 1). In Q Methodology, a set of

cards (called “Q decks”) containing statements are presented to the subject, who then orders these statements in a set number of categories (for example, from “most agree” to “most disagree”) in a process called a “Q sort”. Often, it is sought for these statements to be “natural statements”, that is, statements drawn from a universe of beliefs expressed within the population being studied. The universe of beliefs is called “the concourse”. In order to identify the concourse, preliminary research is often required. This is precisely the action which this step of the methodology involves.

The main tool for identifying the concourse was discourse analysis of literature concerning the issue of power sector governance in Costa Rican context. Past research by the author, demonstrated the possibility of extracting a considerable number of meaningful statements of the existing concourse by using frame analysis on a small number of short written texts (71 statements total obtained from 3 texts) (Guillen, 2006). Accordingly, it was estimated that 12-15 texts were sufficient to extract a representative concourse (300-400 statements) from which the required number of statements for the Q deck (48) can be extracted. Originally, 3-6 key informant interviews were considered as an alternative in case this methodology did not suffice, however the text analysis did provide sufficient statements.

The Q deck was constructed based on 6 incomplete eliciting phrases, with 9 statements to complete each phrase. These phrases were then tested on five preliminary subjects to verify their comprehensibility, ease and logical consistency in

sorting, and the capacity of the sorting to be completed in a time period not exceeding one hour. The phrases were adjusted after the first trial run, to make them clearer to the participant and also to facilitate completing the sorting. The English translation of the final Q deck is enclosed in Appendix A. (The Q sorts were all conducted with the Spanish version).

B. Perform the Q sorts

After completing the Q decks, the Q sorts are to be performed in one-on-one sessions with the subject sample. The common sample size for Q Methodology is small (10-40), according to Dryzek (2004, p. 10), and in this case, it is estimated that the sample size used will be in the order of 10-20. The Q sorts have provided a unique, coherent viewpoint that resulted from the subject's investigating each of the six eliciting statements. These coherent viewpoints provided reference points for interpretation of the full set of Q sorts. An important aspect of the statements making the Q decks is that while the statement may have elements of meaning when the deck is configured, it was important to allow for the meanings of each Q sort to coalesce based on the actual configuration created by each subject. If necessary, Q Methodology allows for complementing the interpretation of the Q sort by asking the subject about her or his reasons for the sorting order.

C. Coding and Analysis of the Q sorts

The Q sorts were then coded to extract the different meanings and arrange the diverse views concerning the six statements. The first step for analyzing the data from the participant's Q-sorts was to determine the correlation coefficients between

the responses by each participant.[12] These coefficients are then arranged in a correlation matrix, with columns and rows equal in number to the participants in the study.

On the basis of this correlation matrix, the statistical factoring technique used in Q methodology served as a means of determining "how persons have classified themselves" through the process of sorting the statements for each question; hence the factors, which were extracted from the correlation matrix, reflected how the Q-sorts "fall into natural groupings by virtue of their being similar or dissimilar to one another." (S.R. Brown, 1980, p. 208). Each factor can be seen to account for a share of the variability of the original correlation matrix. Furthermore, for each factor, a correlation coefficient (known as *factor loading*) was calculated between that factor and each of the Q-sorts performed by the participants. Thus, the Q-sorts with high loadings (whether positive or negative) in a given factor can be grouped in that factor.

There are several statistical procedures for extracting factors. The software used for this study, "PQMethod", provides two: the more rudimentary centroid technique and the more precise principal component method. However, much of the literature on Q methodology asserts that "it makes little difference whether the specific factoring

[12] The correlation coefficients between the Q-sorts of two participants (x and y) can be calculated manually using the formula: $r_{xy} = 1 - (\sum d_{xy}^2 / 2Ns^2)$. Where d_{xy}^2 is the square of the difference between the value assigned to each statement by participant *x* and participant *y*; *N* is the number of statements; and s^2 is the variance of forced quasi-normal distribution of the Q-sorts. (S.R. Brown, 1980, p. 209).

routine is the principal components, centroid, or any other available method. Regardless of the precise procedure employed, the resultant factor structures differ little from one another in any appreciable respect." (Burt, cited in McKeown & Thomas, 1988, p. 49.). In this case, the principal components method was chosen because it is designed to produce the factors that best explain the variability.

An additional question of theoretical relevance is how many factors can be generated that will have theoretical significance. While the computational methods are able to produce a large number of factors (up to eight for the PQMethod software) it is clearly desirable for the number of factors to be smaller than the P set, since otherwise its value as a means to synthesize and group the elements that explain the variance in the correlation matrix is greatly diminished. Two statistical means were used to determine the number of significant factors: the factor loadings and the eigenvalues (calculated as the sum of the squares of all the factor loadings for a given factor). In general, factors with eigenvalues greater than one are considered significant, and those with lower values are considered insignificant. An alternative means is to require that at least two Q-sorts have factor loadings greater than 2.58 x the standard error[13] for that factor. (S.R. Brown, 1980, pp. 222-223).

Finally, it is important to mention that Q-method uses different techniques for rotating the factors generated. Rotation helps refine how the Q-sorts are distributed into

[13] The standard error for the correlation coefficients and factor loadings is determined by the equation $SE=1/\sqrt{N}$, where N is the number of statements in the Q-sort. Thus SE for a Q-sort using 9 statements would be 0.333, whereas SE for a Q-sort using 18 statements would be 0.236. (McKeown & Thomas, 1988, p. 50).

factors, by approaching more theoretically relevant or statistically significant solutions. This done by moving the whole data set in relation to two of the factors (represented as two axes at 90 degrees to each other) to "enhance the purity of saturation" of as many Q-sorts as possible in a single factor. (McKeown & Thomas, 1988, p. 52).

The PQMethod software provides two options for rotating, the varimax technique, which is a purely statistical method, and the manual or graphic technique, which allows the researcher to test his own theoretical hypotheses about the data, through *judgmental rotation* rather than relying on purely statistical means (S.R. Brown, 1980, p. 227). In this study, both methods were used, varimax rotation was first used, and manual rotation was then used to maximize the significance of the factor's in relation to the objectives of the study.

Further technical notes on the coding and analysis of this study are provided in Annex D.

GAP ANALYSIS OF DELIBERATION ASSETS AND REQUIREMENTS

The final stage of research ties together the results of the prior three phases. Taking into account the normative value-proposition of deliberation for environmental governance, the historical analysis of the sector's governance dynamics and current opportunity structure, and the complexities associated with multiple worldviews, this

stage brings together an analysis of the gaps existing between the requirements for deliberation and the assets which have been identified throughout this research process.

The systematization of this analysis was also done using the quadrant dynamics approach of integral theory.

CHAPTER IV

HOW CAN DELIBERATION CONTRIBUTE TO ENVIRONMENTAL GOVERNANCE? AN INTEGRAL AND NORMATIVE ANALYSIS

This chapter builds on the emerging normative premises of deliberative democratic theory in order to sketch out the diverse contributions that deliberation can make to the enhancement of environmental governance. The current "deliberative turn" is a recent phenomenon in modern democratic theory (Dryzek, 2000, p. 1), and one important focus of the scholarly work is the integration of different theoretical perspectives. Furthermore, a concern reflected in the academic literature relates to how some of these theoretical models fail to address cultural, institutional, and psychological elements[14].

In order to encompass elements of these different dimensions in this overview of deliberation's potential contributions to environmental governance, this chapter makes use of the quadrants perspective, and element of U.S. philosopher Ken Wilber's integral theory. Quadrants constitute one of the major aspects in Wilber's AQAL[15] integral

[14] See for example concerns expressed by: Steenbergen, Bächtiger, Spörndli and Steiner (2004) and of Rosenberg (2006) regarding the neglect of psychological variables; Young (2000) regarding the potential that some people or groups may be excluded or marginalized; and Baber & Bartlett (2005) regarding how little the theoretical work has evolved into institutional prescriptions.

[15] Quadrants is one of five elements of the AQAL framework. The acronym AQAL stands for "all quadrants, all levels, all streams, all states, all types." A more thorough description of the complete framework, including all elements, is available at Wilber (2001, pp. 42-55). There is also an online interactive summary of the quadrants map at Formless Mountain (n.d.) available at this link http://www.formlessmountain.com/quads.htm

framework. It is a valuable instrument to understand any phenomenon in a comprehensive way, by integrating the four perspectives most commonly used in epistemological approaches: the external, observable dimensions (behavior and systems) and the internal, subjective dimensions (experience and culture) (B. Brown, 2006, p. 64).

The analytical approach used in this chapter seeks to reflect elements from each of these four dimensions. A graphic representation interrelation between the quadrants map is illustrated in Figure 4.1. As can be seen, the left side of the diagram contains the internal (subjective) dimensions, while the right side contains the externally observable (objective) dimensions. The perspective of a single individual or organism (whether subjective or objective) is portrayed in the upper quadrants, while the lower ones contain the collective perspective of groups, networks or systems of individuals or organisms.

The development and application of the quadrants has been conceived to support the integration of all four of the aforementioned lenses or perspectives in the study of phenomena as diverse as ecology, sustainability, governance, and education, among others. Thus it aims to offset the limitations of some analytical approaches due to their consideration of only certain of these dimensions.

FIGURE 4.1. THE QUADRANTS MAP OF INTEGRAL THEORY

	Left (Internal)	**Right** (External)
Upper (Individual)	*Experiential* [psychological & spiritual]	*Behavioral* [what is measurable what occurs at the level of organs/organisms]
Lower (Collective)	*Cultural* [Interactions, Discourse]	*Systemic* [Social, ecologic, economic & political structures]

Adapted from B. Brown (2006, pp. 8-18)

EXPERIENTIAL ELEMENTS OF DELIBERATION

The first quadrant that will be analyzed is the experiential quadrant, which contemplates personal subjective experience, and phenomena generally classified as psychological or, in some cases, spiritual. As Riedy (2006) states "the position taken by an individual during deliberation is dependent on their cognitive ability, values, morals, self identity, and other interior structures" (p. 52).

From a deliberative perspective, a person, through certain modes of communicative action, can attain a better understanding of her own policy preferences in relation to those of others and in the context of "reasonable" standards for the common –or greater– good. Thus, it is posited that a person will be able to re-examine her own

views (opinions, preferences, priorities) in light of information received from others, and hence resolve any conflicts between her views and those of others, by assessing which present the soundest "validity claims". Hence, deliberative democratic theory attributes greater relevance to *individual introspection* than aggregative democratic theory.

Two elements of Introspection commonly regarded as essential for deliberation are *self-reflection* and *empathy*. Self-reflection, in the context of deliberation, entails the examination of one's own thoughts, feelings and beliefs, and the ability to revise them critically seeking "to explore the validity of the presuppositions of the meaning perspectives we hold [and] question where these presuppositions came from, how they were formed and if they are still valid", and at a deeper level still, to critically reflect on our own process of faming these problems and perspectives. (Fisher-Yoshida, 2005, p. 8). For many deliberative theorists, self-reflection informed by an open dialogue with others is crucial for the outcomes of deliberation to both have collective legitimacy and to fully reflect the truly free actions of an individual.[16].

While self-reflection can help broaden and transform our framing of the issues, the second introspective element, *empathy,* defined as "the ability to experience the emotional state of another, and practice constantly doing so" (Macnair, 2003, p. 61),

---

[16] Joshua Cohen (cited in Hoechst, 2004) states that "according to most proponents of deliberative democracy, political decisionmaking is legitimate insofar as its policies are produced in a process of public discussion and debate in which citizens and their representatives, *going beyond mere self-interest and limited points of view, reflect on the general interest or their common good*" (p. 2) [emphasis added].
Additionally, Peter Muhlberger (2006), states that "(…) *agency is the capacity to choose and successfully execute actions consistent with a coherent and reflectively determined self.*(…) It is only by reflexively considering their values and preferences that people exercise agency – that is only by subjecting uncritically absorbed values and preferences to conscious and thoughtful reflection (p. 11) [emphasis in the original].

allows the person to overcome her preconceptions about the motivations of others and to more openly listen to them with the purpose of understanding their perceptions. In this way, a person is able "to move beyond selfish concerns and to pay attention to the common good" (Steenbergen, Bächtiger, Spörndli & Steiner, 2004, p. 9).

CULTURAL ELEMENTS OF DELIBERATION

Under the integral theory framework, a second fundamental perspective for the study of phenomena is that of "collective interiors" or "intra-subjectivity", most commonly associated the domain of culture. At the cultural level, the communicative interaction of deliberation can lead stakeholders with diverse worldviews to establish *active trust*, which as was seen in Chapter 2, is not based on traditional roles but rather on more reflective mutual understanding and more transparent social relations (Giddens, 2001, p. 100). It can also foster the collaborative construction of a more *integrative worldview*. This is illustrated by Riedy (2006)

> *From a cultural perspective, deliberation is an interplay of different discourses and worldviews. (…) Cultural interaction and contestation challenges unconsidered views and preferences. This challenge is central to deliberation as it has the potential to induce reflection and perhaps a change in preferences. The challenge of deliberation is to reach a shared decision that all members of the group can support, even if they have different reasons for their support. This decision constitutes a shared discourse that integrates, in some way, the various discourses involved in the deliberation* (p. 52).

Furthermore, at the cultural dimension, deliberation can help transform a group's dynamic of identity construction, making that identity more closely tied to the group's own interests, and hopefully – through expanded awareness - to the good of all of society, and less dependent in ways of differentiating themselves from, or opposing, other groups. As Wondolleck, Gray and Bryan (2003) comment

> *Because identities often arise in order to distinguish oneself from others, a consequence can be the formation of negative characterizations of others. That is, identities can promote tension and exclusion, fostering an in-group/out-group dynamic wherein "outsiders" are stereotyped and motives are attributed to them that are frequently inaccurate but are nonetheless imposed in order to elevate the in-group's view of themselves* (p. 207).

Steenbergen et al. (2004) observe that the "respectful and rational discourse" that takes place in deliberative interaction can support the development of "*superordinate identities*" which encourage the recognition of common ground among actors who have confronting identities. (p. 13).

BEHAVIORAL ELEMENTS OF DELIBERATION

The third approach for exploring deliberation is the behavioral dimension, which corresponds to observable patterns of activity by individuals, including the action of communicating with others. A behavioral perspective related to deliberation can focus on the *behaviors during the deliberation process* or on *behaviors (or changes in behavior) as outcomes of the deliberation process*. Examples of the former include

"types of speech, body language and brain activity" during deliberation (Riedy, 2006, p. 52), or specific indicators that assess the quality of deliberation –such as those comprising the Discourse Quality Index (DQI) developed by Steenbergen et al. (2004, p. 6; see also Bächtiger & Steenbergen, 2004, p. 32).

Although this in no way contests the value of the DQI as an instrument to assess the quality of a deliberative interaction, from an integral framework perspective it is problematic as a reference point for understanding the behavioral element, this is because many of its indicators focus more on the introspective and cultural dimensions than on the behavioral dimension (external, individual quadrant). A more straightforward way of approaching the element of behavior during deliberation is to look at an observable reference point of what the deliberative process is intended to be: a transformed communicative action. The process of this transformed communication is composed of introspective and cultural elements (and systemic elements that have not yet been discussed) and by specific communicative behaviors. These behaviors entail at least four elements: participation (electing to take part in the deliberation process), listening (respectful listening of the views of others), speaking (formulating one's own views and validity claims), and metacommunication (discussing the process itself of communication).

With regards to behaviors resulting from deliberation, among the most commonly studied ones are: political behavior (voting choices, personal engagement in political issues, and policy or decision-making preferences), conformity with or departure from

the dominant group's views, and habitual behaviors related to particular issues (such as consumption patterns or recycling in the case of the environment). Throughout much of the scholarly discourse about deliberation (Steenbergen et al., 2004, p. 10; Riedy, 2006, p. 52; Rostboll, 2005, p. 372) the transformation of preferences is regarded as a key outcome of deliberation, and this shift in preferences can be expected to correlate with changes in behaviors such as habits and political actions.

SYSTEMIC ELEMENTS OF DELIBERATION

The final dimension in the study of deliberation involves social and natural systems. As Riedy (2006) mentions "deliberation is a practice engaged in by a group of people, supported by particular technological, economic, social and political systems" (p. 52). Some recent work on promoting successful deliberation has focused on *institutional design,* an aspect pertaining to the domain of social and political systems that can influence the feasibility and success of deliberation (Steenbergen et al., 2006, pp. 18-20).

For some scholars, the original conception of deliberation relies on idealized conditions of equality and agency that are, in general terms, still unattained under the current political reality; therefore, embodying and preserving the values of deliberation in suboptimal circumstances requires adapting them to the existing economic, social and political realities (Fung, 2005, pp. 387-400). On the other hand, deliberation can also be

an instrument for transforming the social, economic and political context in order to support a more inclusive, equitable and reasoned involvement by multiple stakeholders, as several international experiences suggest[17].

The systemic level is also relevant to deliberation in terms of the complexity of *nested spatial levels* (local, regional, national, multinational and global). Shannon stresses the growing need for increased generative deliberation and coordination across policy sectors and geographic levels, in response to the rising diversity and complexity of policy communities, as evidenced in her remarks about the particular needs of the forestry sector

> *(…) the kinds of problem forest policy addresses today demand integration because no one policy sector, agency or political actor can effectively address the problem alone. The new issues cross boundaries ecologically, socially, politically, administratively and legally. Indeed, frequently several regions, states and countries are involved and their separate regimes must find ways to work together on a common problem* (2003, Conclusions, Paragraph 1).

This section has identified key elements of the normative conception of deliberation and classified them according to the four dimensions (or quadrants) used in the integral framework, as summarized in Figure 4.2.

---

[17] Examples include the cases of Participatory Budgeting in Porto Alegre, Brazil, and subsequently in other Latin American cities (Goodin & Dryzek, 2006, p. 222); "democratic decentralization" initiatives in the Indian State of Kerala (Fung, 2003, p. 528); and participatory energy planning through deliberative polls in nine United States electric utilities (Fishkin, 1999, p. 288; Guild, Lehr & Thomas, 2003, p. 5)

FIGURE 4.2. NORMATIVE ELEMENTS OF DELIBERATIVE DEMOCRACY CLASSIFIED ACCORDING TO THE FOUR QUADRANTS MODEL

	Left (Internal)	Right (External)
Upper (Individual)	*Experiential* Introspection—Examining own perspectives on the issues and preconceptions about others : Self-reflection, Empathy	*Behavioral* *(During deliberation)* Transformed communicative action at the levels of: participation, speaking, listening & meta-communication *(As outcome of deliberation)* Transformed preference formation reflected in political and habitual behaviors
Lower (Collective)	*Cultural* Establishing active trust, building integrative worldviews, fostering superordinate identities	*Systemic* Institutional design.. Inclusion & engagement in transforming social, economic & political dynamics. Coordination across geographic levels.

DELIBERATIVE CONTRIBUTIONS TO ENVIRONMENTAL GOVERNANCE: AN INTEGRATIVE VIEW

As it was discussed in Chapter 2, there are multiple definitions of environmental governance, and diverse visions of what it encompasses. However, the same chapter also points out a particular context under reflexive modernity in which environmental governance can benefit from the specific contributions of a deliberative democratic model.

This section focuses on two particular challenges stressed in the recent literature on environmental democracy: responsiveness to plural views (Smith, 2003, pp. 13-28), and social legitimation (Marshall & Goldstein, 2006, pp. 223-226). This section will address the theoretical contributions of deliberative democracy (and the interactions among the four integral dimensions) for each of these challenges.

A. Responsiveness to plural views.

As Smith (2003) asserts, "a diversity of moral sources and traditions have affected our thinking about the environment and given rise to the diversity of different positions within the environmental movement" (p. 19). Smith contends that an environmental agenda rooted in the belief that there can be a single ethical perspective to guide the entire environmental movement is unrealistic and can lead to the loss of 'much of the richness of human non-human interactions' (pp. 20-21). In contrast, he argues that different and conflicting accounts of 'the good life' exist within the environmental movement, and that it is not always possible to reduce these different values to one another or to an independent standard.[18]

[18] Smith labels the first situation *'value incompatibility' and the second 'value incommensurability'.* To illustrate the first, he points to the existing diversity in conceptions of sustainable development. As an example of the second, he offers the case of valuating a rainforest, where aesthetic, scientific, cultural, and economic judgments cannot be reduced to one another. (2003, pp. 20-23).

Environmental governance thus needs to respond to plural perspectives and values, while acknowledging that decision-making will at times entail making judgments under conditions where reason may not generate a single objectively right answer. However, this should not be perceived as a cause to abandon the effort to make reasoned decisions, but rather as a reminder that different stakeholders will often base their judgments on different value frames. Thus, by becoming aware of the diversity of perceptions and values comprising the environmental movement, and gaining an enriched understanding of those values, each person can strengthen the reflexive nature of her or his own perspective, and the collaborative character of her or his interaction.

> *"To comprehend another's judgement is to attempt to understand the perspective from which they judge, and, through such an attempt, one's own perspective becomes a matter for reflection. Through understanding the judgement of others we come to recognise that our own perspectives may be limited and fallible, in that certain values may be ignored or misrepresented (…) It is only through encountering other perspectives and value orientations that we are able to come to reflexive judgements." (Smith, 2003, p. 25).*

Hence, as this particular issue illustrates, an element pertaining to the **cultural** dimension (value pluralism), partly rooted in **systemic** causes (the complexity and interconnectedness of environmental issues), can affect the emergence of an **experiential** phenomenon (self-reflection). Furthermore, the opportunity for this insight to emerge will also depend on the availability of the proper conditions at the institutional

(**systemic**) level, such as the access to appropriate fora for exchanging views, and the communicative (**behavioral**) level**,** like ensuring that mutual listening indeed takes place.

B. Social legitimation.

In Chapter 2, the notion of an environmental legitimation crisis, proposed by Marshall and Goldstein (2006, p. 218), was discussed. Their work expands on the crisis theory of the Frankfurt school, and the notion of a democratic legitimation crisis developed by Jurgen Habermas (E.M. Ureña, 1998, pp. 112-113).

Marshall and Goldstein (2006) perceive the Ecological system as a semi-autonomous system interacting with three other systems (economic, political administrative and socio-cultural). The environmental legitimation crisis arises when the Political Administrative system is unable to address the degradation of the three key functions of the Ecological system: "supply depot, waste repository and living space" and fails to protect the citizenry from the impacts of their degradation (p. 216). They identify three main manifestations of this crisis, two of which are in the form of claims made by the citizens against the State[19], whereas the third involves the emergence of grassroots environmental movements to protect communities from environmental degradation, where the State is seen as neglectful in fulfilling this function (p. 220).

[19] These two claims, involving *recreancy* and *agency capture*, have been described more extensively in Chapter 2.

Concerning environmental governance, a key contribution of Marshall and Goldstein is providing a framework that addresses both environmental degradation, in objective terms, compounded by the impact of negative views on the State's environmental institutions (as undeserving of the public trust). Under such a dual crisis, ecological systems deteriorate **and** the existing institutions and traditions of management and problem-solving face declining credibility and capabilities. However, there is also an element of opportunity associated with such a crisis, as was discussed in Chapter 2, since it can herald the emergence of a more reflexive and participative citizenry and the transformation of the conventional dynamics of trust into a *active trust* that needs to be earned by institutional actors (Giddens, 2001, p. 100).

Life politics, according to Giddens, are an emerging framework of politics where decisions that would have previously been based on tradition and established roles are now articulated around choice and identity (2001, p. 97). *Life politics* can become *generative politics* and serve as the scaffolding for the construction of active trust if it can create "new meaning, new resources, new social organizations, new values and new interests through public deliberation" (Shannon, 2002, p. 13).

Thus, as the **cultural** (dynamics of trust) and **systemic** (environmental degradation and loss of institutional legitimacy) dimensions of environmental governance are facing intertwining transformations, the construction of viable solutions must therefore be approached through multiple and sometimes overlapping dimensions. Generative politics requires the construction of new identities and values (**cultural**), the

manifestation of new preferences and modes of interaction (**experiential** and **behavioral**), and the creation of new institutional arrangements and social organizations (**systemic**).

This chapter has explored deliberative practice as it is theoretically conceived, and identified elements of four fundamental dimensions of experience using the Integral Theory framework. This has revealed important interrelations between cultural, behavioral, systemic and experiential phenomena for the stakeholders of environmental governance. The following chapters will assess environmental governance in Costa Rica's from a perspective of written historical accounts, and from the subjective outlooks of key stakeholders. The elements found through these analyses of historical documents and personal perceptions will subsequently be integrated using the same Four Quadrants framework that was used in this Chapter in order to establish the deliberative assets and needs of Costa Rica's electric sector governance.

CHAPTER V

THE GOVERNANCE DYNAMICS OF THE ELECTRICITY SECTOR IN HISTORICAL PERSPECTIVE

Governance arrangements, in the diverse senses already discussed in Chapter 2, have rarely been the focus of historical accounts of the electric sector. Generally, documents discussing the sector's history point out a few historical curiosities and subsequently provide a predominantly technical account of the expansion of the system's infrastructure[20]. Notable exceptions to this are the works of P. Rodriguez (2000), Sojo (2004), Granados (2006) and Alvarenga (2005).

Of those studies exploring governance at some length, only P. Rodriguez (2000) looks at the full historical span of the sector's existence (1880's to 2000), although it does so primarily from the vantage point of the national Public Services Regulatory Agency (ARESEP). The works of Sojo (2004) and Granados (2006) look at the latest four decades from a perspective that is also primarily institutional. Finally the research by Alvarenga (2005) on social movements reveals several important episodes, spanning six decades between the aftermath of the 1948 civil war and the early XXI Century, when organized civil society played a vital role in responding to and reshaping the

[20] Foremost among the emblematic details generally offered is the fact that San José was the third city in the world ever to have electric public lighting (Fallas, n.d, "Inicio de los servicios electricos en 1884"), which is a recurring source of national pride. An example of a more technical account is Fallas & Alvarez (1997).

practices and policies of energy sector institutions. Remarkably, most of the episodes reported by Alvarenga have been overlooked or downplayed in official or institutional accounts of the electricity sector.

The approach taken in this chapter is to provide a historical context for understanding the governance dynamics of the electric sector, by outlining the prevailing institutions and traditions of governance over five periods. Thus, a clearer understanding will be sought of the evolution of the traditions and institutions of governance over the approximately 125 years of the sector's existence. This will provide a foundation for exploring, along with the data of different stakeholder worldviews that will be explored in the next chapter, opportunities for deliberative democratic approaches to contribute to generating more inclusive, sustainable and effective electricity governance practices.

The analysis will also draw on Fox's notion of **"political construction of social capital"**, where social capital is understood to be both a product and an enabler of good governance, since it is the "stock of norms of reciprocity and networks of civic engagement" (Putnam, cited in Fox, 1997, p. 120). In Fox's view, the interactions between civil society and state actors may or may not lead to the accumulation of social capital, and in fact, at a given time, forms of interactions may simultaneously exist that promote and curtail social capital. As a means of more integrally understanding these interactions, Fox uses the model of "political construction" made up of three elements: political opportunity, social energy and ideas, and the process of 'scaling up' social movement organization and representation (1997, p. 121).

As described in Chapter 3, the notion of opportunity structure takes into account factors external to the social movement itself, such as: the degree of openness of the political system, the stability of alignments of power, support of or alliances with elite groups, and the propensity and capacity for repression by the State (Rothman, 2001, p. 322). The second factor, social energy and ideas, involves political ideas and elements of the political culture of social movements, such as leadership. In particular, this study will look at the "frames" of social control and problem solving adopted, not only by social movements, but by all stakeholders who are involved in transforming governance of the electricity sector. The relevance of such frames to governance arrangements, particularly with a view to resolving intractable conflicts, is described by Gray & Putnam (2003) and Peterson (2003).

The third building block of Fox's political construction model involves "scaling up" of social movement capacities. Scaling up, in Fox's terms, involves the emergence of more regional platforms for collective action, which can help social movements offset the power of elites. Social movement organizations achieve this by overcoming the limitations in "locally confined solidarities, representative bargaining power and access to information" that dispersed, horizontal and local organizations typically face (1997, p. 125). However this study also will also recognize modes of scaling up that involve decentralized networking, not only regional centralization, as enhancing the social capital of civil society organizations. Loosely networked forms of scaling-up may in fact

be more resilient, in the presence of power imbalances, than centralized approaches (Brafman & Beckstrom, 2006. p. 21).

In order to develop a contextual understanding of the potential of deliberative practices, the subsequent sections of this chapter will present each of the five key historical periods of the electricity sector. Each section will present an overview of key occurrences involving the electric sector, an analysis of its governance dynamics and their transformation, and an assessment of Fox's "building blocks of social capital".

Phase I. Sector Emergence (1882-1928).

a. Main Occurrences. The genesis of the sector came about with the granting of concessions to exploit hydraulic resources to small private enterprises, beginning in 1882 with the founders of the Costa Rica Electric Company. This led to the establishment of public lighting in San Jose in 1884[21] and subsequently the provincial capitals of Cartago (1888), Heredia and Alajuela (1897), through service contracts that required the approval of the National Government (P. Rodríguez, 2000, p. 32).

In 1910, new legislation established the regulation and nationalization of hydraulic forces by the State, and allowing for their exploitation to take place only under concessions for limited time. (P. Rodríguez, 2000, p. 37). The lure of electric service

[21] The Company signed a contract with the Municipality of San Jose in 1883 to provide public lighting to the city of San Jose. The public lighting service, powering 25 street lamps, came online on August 1884, making San Jose the third city in the world (after New York and Paris) to have this service.

concessions set off intense competition between foreign investment companies that began to acquire the local small enterprises. Foremost among them was the U.S.-based Electric Bond & Share Company (EBASCO), which was also acquiring power companies in other Latin American and Caribbean countries.

In 1928, one of the most relevant social organizations of the period, the Liga Cívica (Civic League), was founded by a group of Costa Rican professionals who questioned the deficient quality of electricity services and the trend towards monopolization of the private electricity companies by EBASCO. (P. Rodríguez, 2000, p. 44). Although generally overlooked in institutional accounts, there was a worker's movement in 1927 that preceded the Liga Cívica. The movement, called the Committee for the Defense of Natural Wealth, mobilized public demonstrations of at least 600 workers and lobbied the municipal and central government authorities against the electricity contracts with EBASCO. (De la Cruz, 2004, pp. 161-163)

Having found echo in Congress, the concerns of the Liga Civica and other social movements prompted the passing of a new electric forces nationalization law in 1928, which also established the first national public services regulatory agency: the National Electricity Service (SNE). (P. Rodríguez, 2000, p. 45).

b. Governance Dynamics. Although the introduction of public lighting was strongly in alignment with the modernization policies of the liberal administrations of the late XIX

Century, the role of the State was rather marginal over the first three decades of the power sector's development.

c. Governance Transformations. The only notable institutional progress in the sector's governance was the passing of the nationalization law, which standardized the terms for the approval of concessions. Furthermore, at the end of the period, two organized movements, one made up of workers and another made up of well-educated professionals, emerged to oppose the growing control of foreign monopolies on the sector.

d. Political Opportunity Structure. Recent studies on the evolution of Costa Rican democracy point out that the transition from an authoritarian regime in the late XIX Century to a full democracy in the late 1970s was a long process spanning nine decades. (Programa Estado de la Nación, 2001, p. 101). During the 1880's-1920's the transition was marked by the initial efforts to guarantee the separation of powers and the primacy of elections as the legitimate mechanism for reaching political office. (Programa Estado de la Nación, p. 107). However, in these electoral processes the practice of electoral fraud and intimidation were generalized and those eligible to vote were less than 25% of the population, whereas actual voters were less than 10%. (Programa Estado de la Nación, p. 109). However, instances of repression significantly decreased from previous periods, and the growth of electoral politics brought about more political competition between elites, as well as greater tolerance for new political ideas. A new generation of well-educated thinkers and writers emerged who openly

raised social issues, some of them inspired in Latin American nationalism or in European anarchist and socialist ideas. At the same time, a bottom-up movement for social change was also manifesting, among workers, artisans and peasant farmers. This movement was strongest and most often repressed in the mining and banana enclaves, but it was generally tolerated in the urban centers. (Programa Estado de la Nación, pp. 108-109).

e. Social control frames and social movement ideas. Just like elsewhere in the world, the recent introduction of electricity was viewed as a valuable resource for State modernization. However, the institutional capacity for directing and regulating this service evolved very gradually. Regarding electrification, the main social ideas at the beginning of the period were the "innovator spirit" and "modernization". However, as the period progressed and new steps towards democratization were taken, nationalist views became more prevalent. These views were inspired by diverse sources, like the regional anti-imperialist movements (such as the APRA - Popular Revolutionary American Alliance - party founded by Peruvian Victor Raul Haya de la Torre), and the socialist and anarchist ideas of the period, particularly in Europe.

f. Social movement scaling-up. According to some analysts, the struggle against the foreign electric companies, and against their consolidation as a "de facto monopoly", became the most relevant nationalist and anti-imperialist movement of its time. (E. Rodriguez, 2003, "*Section III. Las fuentes de sus ideas políticas. A. Nacionales. 4. Nacionalismo de las década de los 1920*"; De la Cruz, 2004, p. 169). The movement

appears to have had two streams, a worker's movement, that mostly lobbied at the municipal level, and a movement of highly-educated professionals from the elite classes, that lobbied more strongly at the Congressional Level, and even wrote an open letter to U.S. President Hoover when he visited Costa Rica in 1928 (De la Cruz, pp. 162-169). It was at the Congressional level that the movement achieved its greatest victory, by managing to pass legislation nationalizing electricity services and establishing a State regulatory agency.

It is also important to note that neither the worker's movement nor the more elite-oriented Liga Civica were exclusively a movement about the electricity contracts. Both movements also brought up issues involving other foreign company interests, such as the banana and mining contracts. However, the electricity issue certainly played a catalytic role in consolidating the group's agenda and raising political support.

Phase II. Bilateral negotiation between the private monopoly and regulatory agency (1929-1948).

a. Main Occurrences. The 1928 law provided the government new revenues through a tax on electricity generation, gave the SNE the competence to regulate electricity concessions and to stem the rise in electricity prices (which was vital since the country was facing economic hardship at the time), and mandated the SNE to build and operate new hydroelectric plants that could advance the provision of electricity to the periphery of the country. (P. Rodriguez, p 59).

In 1940, Costa Rican President Calderon requested U.S. President Roosevelt for technical assistance in assessing the problems of the Costa Rican electricity sector. Roosevelt designated the chief engineer of the Tennessee Valley Authority, Julius. A. Krug, to carry out this assessment. Krug's findings pointed out the need for sterner regulation of the private companies, for an increase in the country's generation infrastructure that exceeded the government's financial capacity, and indicated that the profit margins of the private companies were at the time within international industry's usual standards (P. Rodriguez, 2000, pp. 101-103).

Krug's report had also stressed the need to end the nominal separation between the three companies (all owned by EBASCO) that comprised a 'de-facto' monopoly, in for SNE to be better equipped to deal with them. In 1941, the SNE negotiated, through a new contract with the private electric companies, their unification into a single legal entity: the Compañía Nacional de Fuerza y Luz (CNFL)[22] (P. Rodríguez, 2000, p. 105).

A new law passed in August of 1941 gave SNE new powers, including the capacity to regulate electricity rates, oversee the financial management of electric companies, and to impose penalties for electricity smuggling or speculation. (P. Rodriguez, 2000, p. 110). Two additional laws in 1942 also empowered SNE to regulate telephone services

[22] CNFL, which has retained that name to this date, was finally nationalized in 1968.

(also provided by CNFL) and to administer water resources and regulate water concessions. (P. Rodríguez, p. 20).

In 1947, the municipality of Heredia, which had sought for nearly a decade to become a significant player in its own electricity supply, appointed an Energy Services Advisory Board (JASEMH) and began construction of the 2000 kilowatt Carrillos hydroelectric plant. (Torres, n.d., p. 34). This marked the first time that a national public agency, wholly staffed Costa Rican engineers, undertook an energy infrastructure work on a par with those administered by CNFL.[23]

Some of the engineers involved in the construction of the Carrillos Plant had also been involved in the establishment, in 1945, of a civil organization advocating the nationalization of electric services. Like the Liga Civica of the 1920's, this new organization, called *Asociación para la Defensa del Consumidor Eléctrico* (Association for the Defense of the Electricity Consumer) was primarily made up of Costa Rican professionals. The main issue it raised was the poor electricity service provided by CNFL, which had not expanded its infrastructure since 1932. (Instituto Costarricense de Electricidad, n.d.b, p. 3).

[23] Mr. Jorge M. Dengo, who would later be the founder of the Costa Rican public power company ICE, underscored how relevant the experience of constructing this hydroelectric plant was for the genesis of a national electricity institute, since *"it overcame the idea fostered by the electric company that only they were capable (...) allowed young engineers to have the experience of building a large project (...) [provided] experience in organization and financing, (...) and [allowed the study] of the basic problem of electricity in Costa Rica."* (Rodriguez, 2003, "Nace el Ice" Paragraph 5).

At the end of the 1948 Civil War, a group of young engineers led by Jorge M. Dengo, prepared a National Electrification Plan that involved the creation of a national electricity institute. They garnered the support of the Bank of Costa Rica's Directors, and with their backing, promoted it to the President of the post-war Junta, Jose Figueres.[24] (Fallas & Alvarez, 1997, p. 11).

b. Governance Dynamics. The newly created entity, SNE, was until the late 1940's the only government institution involved in the power sector's governance. In the 1930's, its main work entailed constant negotiation over end-user rates with each of the private companies owned by EBASCO. The country's generation capacity stagnates and areas outside the main urban centers of San Jose, Heredia, Alajuela and Cartago were for the most part deprived of electricity services.

c. Governance Transformations. The 1940's brought about important changes that improved the government's leverage in its negotiations with EBASCO. The legal reforms of the early 1940's and the consolidation of the three private companies into a single entity were important elements in this. However, the main element of change came about through the constitution of a Municipal electric services board in Heredia and its undertaking of the Carrillos hydroelectric plant, under the care of a team of Costa Rican engineers. The project was financed through a tax on the production of boxes of matches, 90% of which were produced in Heredia (Torres, n.d., pp. 27-28),

[24] This group's leader, Jorge Manuel Dengo, had been the head engineer of the municipal Carrillos plant in Heredia and a leader of the Asociación para la Defensa del Consumidor Eléctrico, as well as a member of Figueres' forces during the Civil War. Bank nationalization had been one of Figueres reforms.

and it meant the possibility for the development of a local alternative to the foreign monopoly's control.

d. Political Opportunity Structure. This stage spans important political periods such as the nationalist effervescence of the 1920's, the social reforms of the 1940's and the 1948 Civil War. While the Liga Civica of the 1920's was strongly ideological and anti-imperialistic in sentiment, the movement of the 1940's leading to the construction of the Carrillos hydroelectric plant and calling for the nationalization of the electric industry was focused on the development of national capabilities on a par with those of industrialized countries (as can be surmised from the fact that many of the aims of the nationalization movement are compatible with the views of President Roosevelt's envoy).

During this period, new alignments of political forces emerged, including the emergence of new stakeholders, like organizations of intellectuals, Progressive Community Boards (Juntas Progresistas), unions of teachers and manufacturing workers, and small coffee farmer organizations. In the 1940's the Welfare State arose, including "the promulgation of the Labor Code, the inclusion of the chapter on Social Guarantees into the Constitution and social security for workers through the creation of the Caja Costarricense del Seguro Social (CCSS)" (Alvarenga, 2005, p. 4). This had fostered an alliance between the National Republican Party (or "Calderonista Party"), the Catholic Church and the communist Vanguardia Popular Party, who supported the reforms, and led to tensions with Ulate's conservative Popular Union Party, that opposed the reforms.

Unfortunately, the 1940's also saw a weakening of the legitimacy of the electoral institutions. While the country had been gradually seeking to implement electoral reforms through the 1920's and 1930's to achieve more transparent and free elections, during the 1940's the Calderonista party had wrested control of the electoral machinery. This prompted a new alliance against the Calderonistas made up of the conservative oligarchy (Ulate's party) and an emerging group of professional and intellectuals that would eventually found the Social-Democratic party (later renamed National Liberation party) (Alvarenga, 2005, p. 5; Lehoucq, 1998, p. 121).

The Civil War between the factions of Figueres and Ulate on one side, and the Calderonista alliance on the other, was sparked after Calderon's government annulled an election won by Ulate. When the opposition forces, led by Figueres, won the Civil War, their block of the opposition was able to strengthen the social reforms that had been undertaken by the Calderonistas (against the thrust of their Ulatista allies who opposed them), and introduced new initiatives that enhanced access to public education, universal suffrage and basic social infrastructure, as well disbanding the army and decreeing bank nationalization, which strengthened the Welfare State and supported the emergence of a middle class. (Alvarenga, 2005, p. 6)

e. Social control frames and social movement ideas. In the electricity sector, the expert knowledge frame had great significance during this period, as illustrated by the visit of President Roosevelt's envoy, Julius Krug. Furthermore, the nationalistic frame, with a particular emphasis on promoting a shift to greater reliance on domestic

capabilities, was paramount in influencing the sector's transformation. On this regard, it is important to note the shift from a fundamentally ideological "anti-imperialism" frame of the movements for electricity nationalization of the 1920's and early 1930's and the less overtly political and more pragmatic "national self-reliance" discourse of the 1940's.

f. Social movement scaling-up. Over the 1930's and 1940's, the emerging social movements were able to coalesce to an unprecedented degree. This directly impacted the implementation of new social welfare measures and the birth of the welfare state. However, the relative importance of electricity nationalization decreased in relation to other social issues (like labor rights, and access to education and health services) as the thrust towards a welfare state advanced. In this sense, the struggle against the private electricity monopoly served, at a particular time, as an issue that brought together progressive movements of workers and intellectuals. According to De la Cruz (2004) shortly after achieving the Congressional approval of the 1928 Electric Forces Law, leaders from both movements formed a new political party the Alliance of Workers (Alianza de Obreros) that brought together the agendas of new intellectuals and workers, this transitional political party is considered the direct precursor of the country's first Communist Party (p. 235). Hence the issue of electric nationalization served as a "bridge" that drew together different stakeholders of the emerging social movement, and these stakeholder would later be instrumental in defending the new social reforms of the 1940s.

Remarkably, the movement that promoted the electric sector nationalization in the 1940's had a very different profile. They were engineers who argued for, and strove to prove, that local capacities could displace the foreign company's stranglehold over a vital local resource and public service. Theirs was less a struggle over a political principle than over conquering a niche for the country's skilled professionals.

Phase III. The birth of the National Electric System and the new consumer rights social movements (1949-1979).

a. Main Occurrences. After the Civil War, Jorge M. Dengo, with the support of the Boardmembers of the National Bank, was able to persuade provisional Junta President Figueres to decline the signing of a new contract with CNFL and to move instead towards a national monopoly. (Ramirez, "A la par de don Pepe"). ICE, the National Electricity Institute, was created by a Decree of the provisional Junta in April of 1949. This marks the birth of a nationalized electricity system in the country.

It is possible to classify the events that took place during this third phase into three major trends. The first of these trends concerns the expansion of the national electric system and the configuration of a system of institutions that endured as the sole stakeholders in the sector until the 1990's. The second involves the reshaping of ICE's governance structure under the influence of the bipartisan political agenda. The final characteristic trend relates to the emergence of contentious movements of electricity consumers at specific times.

With regard to the first of these trends, ICE began its capacity expansion by acquiring plants from small enterprises that had provided electricity to the communities of Limon, Cartago, Turrialba and Puntarenas (P. Rodriguez, 2000, p. 141), and later began to build its own plants[25]. Additionally, new public institutions emerged that managed electric Municipal electricity services in certain urban areas, but that never challenged ICE's authority as the central institution in the sector[26].

With regard to the second trend, some analysts contend that ICE faced growing intervention from the "representatives from the main political forces in the country" since the early 1960's, a situation that may have led to a reduction of its autonomy for sound technical decision making. (Marin, 2002, p. 21). They point as the start of this process the passing of a law in 1962 that required that a State Minister become a member of the board of every autonomous institution (including ICE). A second law, passed in 1968, limited the autonomy of governance and administration of all autonomous institutions (ICE included) to purely administrative matters. (Marin, p. 21; Sojo, 2004, p. 19).

---

[25] The first hydroelectric plant build by ICE came online in 1958, nearly doubling the country's total existing capacity. (C. Rodriguez, 2003, "Nace el ICE", paragraph 4).

[26] These institutions include the Municipal Electric Services Management Boards of Alajuela (JASEMA) and Heredia (JASEMH) created in 1949. (P. Rodriguez, 2000, p. 150). The network of energy service institutions would be completed by the creation of a similar board in Cartago (JASEC, as a result of one of the social movements described later), in 1964 (Alvarenga, p. 208; P. Rodriguez, 2000, p. 136); the nationalization of CNFL in 1968 (P. Rodriguez, 2000, p. 144); and the establishment of rural electrification cooperatives in the regions of San Carlos (Coopelesca), Nicoya (Coopeguanacaste), southern San Jose Province (Coopesantos), and Zarcero (Cooper Alfaro Ruiz), all created with support of the USAID, the first three in 1965 and the fourth one in the early 1970's (Fallas, 2001, p. 17; Monge, 2006, pp. 3, 9). With only two exceptions, all these institutions remain to this day. JASEMH was later restructured as the Empresa de Servicios Publicos de Heredia (ESPH), and JASEMA was dissolved.

The trend continued in the 1970's, when the central government continued to pass legislation that increased the political inherence on the governance of autonomous institutions, including ICE. In 1970 a new law established that the Boards of autonomous institutions would be appointed according to a 4:3 formula, whereby 4 members would be appointed by the central government in power, and the remaining 3 members would be selected from a roster provided by the political party that had come in second in the last elections. In 1974 another law created the position of Executive President of all autonomous institutions, who would be a political appointee by the central government outranking the General Manager of the institution. This situation is perceived by some analysts as having a dual negative impact, placing these institutions in the role of providing financial stability to the rest of the government, and reducing the legitimacy of political leaders. (Sojo, 2004, p. 19; Marin, 2002, pp. 21-22).

Finally, the third trend involves the emergence of social movements in urban areas contesting national policies, such as rate increases, that affected electricity consumers. The first two such protest movements arose in the 1950's and were organized by working class neighborhood associations (or 'Juntas Progresistas') in San Jose.[27] Alvarenga (2005) relates their emergence to two main factors: the swell in urban population fostered by the policies of Figueres's National Liberation Party, and the need

[27] Both protests arose in reaction to electricity rate increases announced by CNFL, but were soon reframed as movements against the foreign electric trust company and calling for nationalization of the electricity distribution network. (Alvarenga, 2005, p. 140). Alvarenga points out the importance of these episodes in the development of new skills (like door-to-door canvassing and organizing meetings and demonstrations) and the trying out of new modes of protest (like voluntary "lights out" campaigns as a show of strength) by the burgeoning social movements (pp. 133, 136).

by the political left to find new modes of organization after being excluded from electoral politics after the 1948 Civil War (Alvarenga, 2005, p. 133).

Subsequently, other protest movements arose in the 1950's in the cities of Alajuela and Puntarenas, and in the following decade in Cartago. According to Alvarenga (2005), there is a noticeable difference between the social movements that arose in urban San Jose (within CNFL's service area) and in the outlying regions (p. 140). The movements in San Jose were primarily made up of community organizations from working-class neighborhoods (Juntas Progresistas), and their leadership was linked to the political left that had been excluded from electoral politics after the Civil War. In their case, concerns about financial hardship related due to CNFL's rate increases was soon reframed as opposition to the foreign electric company and advocacy for the nationalization of the electricity distribution network.

In regions outside San Jose (and therefore outside CNFL's service area), such as Alajuela, Puntarenas and Cartago, the movements advocated local control over public services and therefore did not support (or even actively opposed) the government's centralization strategy and the expansion of ICE as the sole electric utility. (Alvarenga, 2005, p. 164). These movements also comprised broader coalitions, beyond the neighborhood associations, including the local municipalities, chambers of commerce, labor unions and charitable organizations like the Rotaries. (p. 144).

b. Governance Dynamics. The most relevance trend in governance during this period was the consolidation of a nationalized institutional structure for electricity provision. This was complemented by two other trends: collective action by social movements, and the intervention of the Executive Branch in curtailing the self-governance of all the Autonomous Institutions, including ICE.

c. Governance Transformations. ICE continued to evolve as a lead institution in a well-articulated network of public infrastructure for electricity services. It also became a recognized leader in the region in the provision of telecommunications services under a State monopoly model (Sojo, 2004, p. 30). However, its autonomy was affected by increased central government controls, including the increased role of political appointees to run the institution and bipartisan agreements for sharing Board positions. Moreover, different social movements emerged that questioned State policies regarding electricity, primarily those affecting end user rates. Those social movements arising in San Jose reinforced the policy of a centralized institutional network, while those protests outside San Jose pushed for a greater role for decentralized regional institutions.

d. Political opportunity structure. During this period, there was a well-defined government strategy to promote a certain model for the development of electricity infrastructure. ICE was the institutional actor at the heart of this strategy, but its functions were complemented by a network of local distribution utilities, and later electrification cooperative. Although there were tensions between ICE's technical and labor groups who sustained the need for greater administrative autonomy, and the Central government, which increased the role of political appointees, at the level of this

contention there never was any attempt to undermine ICE's effective and symbolic role as the core of the electricity sector. At the level of social organizations, there were important movements contesting ICE's policies, particularly when limitations in the quality of electric services or rate increases threatened to affect consumers. The movements originating outside San Jose in fact came to question ICE's centralized control of electric services. In most cases, the movements were countered by the government through appeals to public opinion or administrative measures (like attempting to discredit the movements' organizers or disconnecting the electricity of households that that withheld their bill payments in protest), to which the movements often responded through greater innovation in their collective action methods. However, the 1963 Cartago protests, which represented the strongest such movement of this type in the country's history, prompted a major episode of State repression (the greatest one occurring in the country during this period) (Alvarenga, 2005, p. 184).

e. Social control frames and social movement ideas. At the institutional level, two primary frames of thought about governance competed: the technical and operational autonomy frame, which felt that ICE should self-govern in accordance with the criteria of technical experts, and the bipartisan intervention frame, which proposed that the central government, and the bipartisan leadership, should play a key role in steering the public service institutions.

At the social movement level, the centralized nationalistic frame predominated in San Jose, whereas the outlook that decentralized regional institutions should have a larger role was more widely adopted by social movements outside San Jose.

f. Social movement scaling-up. The electricity consumer movements in San Jose's low-income neighborhoods and in the main cities outside the Central Valley became a major social phenomenon. Each successful organizing experience acquired in the earlier instances was replicated in the subsequent ones. Furthermore, the contentious movements that arose later, around issues like bus fares and water services quality and rates expanded on the lessons learned by the neighborhood electricity advocates.

Phase IV. Financial Crisis and State Restructuring (1980-1997).

a. Main Occurrences. Between 1980 and 1983 Costa Rica faced a severe economic and social crisis. This was in part a consequence of an international recession that involved rising in oil prices and international interest rates as well as falling prices of export commodities (Vargas, 2003, p. 6). As a result, the socio economic indicators of the country were deeply impacted, for example Quesada et al. (2004) cite that between 1980 and 1982 the GDP dropped by 9.2%, the rate of open unemployment nearly doubled from 4.8% to 9.4%, the accumulated inflation reached 157.6% and real salaries dropped by nearly 30%. (p. 106).

President Carazo, during his presidential term (1978-1982), had rejected the proposals of the International Monetary Fund (IMF) and ousted its representatives from the country (Sojo, 2004, p. 20). His successor, President Monge (1982-1986), reinitiated negotiations with the IMF and adopted its state restructuring guidelines including cuts in

public investment and expenditures in education, health and poverty alleviation. (Alvarenga, 2005, p. 219; Vargas, 2003, p. 16). This restructuring was accompanied by a Social Compensation Plan, supported by United States development aid funds, given Costa Rica's potential as an opposing model to the Sandinista revolutionary government in Nicaragua; the compensation plan included scaled salary increases, low-income housing, land distribution and food aid, but the effects of these compensation measures were only felt in subsequent years after their implementation in 1983 (Alvarenga, p. 219; Sojo, 2004, p. 21).

However, the compensation measures were contrasted with the use of public service institutions as the state's primary revenue generating sources, thus overshadowing their customary role promoting socially equitable development (Sojo, 2004, p. 21). It was in particular the increases in electricity rates taking place in 1982 and 1983 that finally triggered a massive popular turmoil.[28] This led to protests initiating in one marginal neighborhood in San Jose, and quickly spreading throughout the country, eventually becoming a national "non-payment" strike that began in May and was sustained until June.

When the government tried to implement massive disconnections of striking homes and businesses, the protesters organized generalized road blocks on June 8 that spread

[28] SNE had approved an 11% increase in April of 1982, and a scaled 70% increase between November of 1982 and April of 1983. (Alvarenga, 2005, p. 222). Sojo (2004) notes that between November 1979 and April 1983 the electricity rates had increased by 481% (p. 22). While there had been other incidents of strikes (health professionals, teachers, ICE's technicians and banana workers) during the first semester of 1983, the protests about the electricity rates were the only one of these that consolidated into a massive country-wide movement at the time (Alvarenga, p. 220).

throughout the country. In the face of the roadblocks, the government called off the disconnection and agreed with the National Coordinating Committee to return the electricity rates to the values of October 1982 (Alvarenga, p. 229), it also agreed to offer preferential rates to small producers and businesses, low-demand households, educational institutions and philanthropic institutions. (Sojo, 2004, p. 22).[29]

In the late 1980's a significant degree of economic stabilization had been achieved through the implementation of policies that included the reduction of public expenditures and the adjustment of public service rates. According to Sojo (2004) the public sector's fiscal deficit was reduced from 17% to approximately 4% between 1982 and 1988. Sojo also points out that a new focus was placed on the elimination of public monopolies and on the privatization of public service entities, as the stabilizing role of public utility rates decreased. (p. 23).[30]

The first government initiatives for privatizing ICE starting in the Arias administration (1986-1990) with a bill contemplating the sale of 60% of ICE's telecommunications

[29] Some of the other demands of the movement, originally agreed to by the government, like the drafting of a law whereby Congress, not SNE, would establish the electricity rates, a one-year grace period to the strikers for paying the overdue bills, and the provision of "meter reading control cards" to the end users so they could verify the consumption being billed, were not implemented. (Alvarenga, pp. 256-257).

[30] As part of this process, the budget policies of public institutions were brought under stringent control by the central government through the Law of the Budget Authority, passed in October of 1982; for some analysts this has limited the potential of public entities, including ICE, to invest in the fulfillment of their own mission and redirected them to generate surplus revenues for the central government. (Marin, 2002, p. 35).

operation to private capital. However, the political conditions were less favorable for privatization than in the early 1980's and the bill was rejected. (Sojo, 2004, p. 23).[31]

However, while local support dwindled, international pressure for the privatization of public services, particularly electricity, was rapidly growing in the region. As Tomiak and Millan (2002) indicate:

> *The 1990s was the decade of privatization and deregulation. (…) As the decade progressed, the concept of energy market liberalization was embraced by governments, businesspersons, consultants and lending agencies across the world as a cornerstone of economic policy. Such was the enthusiasm for liberalization that the question of whether it was in fact an appropriate policy for all countries, whatever their circumstances, was sometimes overlooked or at least glossed over.* (p. 1).

Unlike other countries in the region, where privatization was hailed as a solution for the inadequacies of the state-owned electric companies, in Costa Rica, the policy of greater private participation in electricity generation was related to macroeconomic commitments by the central government under the structural adjustment programs. The government needed ICE to generate a financial surplus as a way to balance the public budget deficit, which would not have been possible if ICE acquired loans to meet the

[31] According to Sojo (2004) the success of earlier state enterprise privatization had relied on substantial United States aid funds for social compensation schemes; however, after the 1990 electoral loss of the Sandinista party in Nicaragua, the United States strategic interest, and its aid funds, diminished, leading to a reduction in generalized political support for privatization within the country. (p. 24).

projected future capacity needs of the electric system. (UN Economic Commission for Latin America and the Caribbean-ECLAC, 2003, p. 21).

Initially, Costa Rica broke away from the model of privatization and reform that had previously been applied in Chile, Argentina, Peru and Colombia (Dussan, 1996, p. 1) instead applying a different approach, commonly referred to as the "co-generation scheme"[32] through Law #7200 of 1990 (Vargas, 2002, p. 86). As a result, an association of Private Electricity Producers (ACOPE) emerged and by 1998, 27 small private hydroelectric projects and 2 small private wind projects under 20 MW had been installed and generated a total of 155 MW of power that was sold under a Power Purchase Agreements (PPAs) with ICE. (Vargas, pp. 151, 161).

Three other phenomena significantly shaped the electricity sector institutions for this period. The first concerns a new alignment of the energy and environment sectors, which were integrated into a single Ministry (originally the Ministry of Energy, Natural Resources and Mines, later named the Ministry of Environment and Energy), accompanied by the creation of a sub-sector planning agency called the Energy Sector Directorate (DSE). DSE became responsible for undertaking integrated energy sector

[32] Under Law #7200, private sector participation was allowed only in renewable energy generation projects with capacity under 20 MW; the Law also established a cap on foreign ownership of 35% of the project capital and a cap on total private participation of 15% of the country's overall power generation capacity (Colegio Federado de Ingenieros y Arquitectos de Costa Rica –CFIA, n.d., p. 25). In 1995, additional private sector lobbying led to a new Law #7508 being passed. The new law increased the allowed foreign participation from 35% to 65% of the project capital, and increased the cap from 15% to 30% of the country's overall generating capacity. The second 15% would be developed under a new scheme for projects under 50 MW, which had to bid competitively under a BOT (Build-Operate-Transfer) scheme; this meant that ownership of the project would be transferred to ICE after 20 years. (CFIA, p. 25; Vargas, 2002, p. 87).

planning, including promoting conservation and assessing alternative energy resource potentials, while ICE remained responsible for planning the capacity expansion of the national power system. (Sotela, 2000, p. 17).

Incidentally, SNE was also the subject of legal reform, in 1996, when it was renamed Public Services Regulatory Authority (ARESEP) and its oversight functions were expanded to additional areas like telecommunications, public transportation and municipal waste management (Rodriguez, 2000, p. 239)

A second relevant phenomenon was the development of a Central American initiative to enhance the integration of the regional electric system. The project of a Central American Electric Interconnection System (SIEPAC) was conceived by the Central American and Spanish governments in 1987, and a framework treaty was ratified by all six countries in the region in 1998.[33] The project was later integrated into a broader initiative called the Plan Puebla Panama (PPP) to strengthen infrastructure initiatives between Mexico, Belize and the six SIEPAC countries. (Ruiz-Caro, 2006, p. 60).

The third significant phenomenon was the emergence of an organized, contentious social movement opposing electric infrastructure projects, particularly hydroelectric ones. This phenomenon unfolded at two levels: opposition to large dam development

[33] The project involves approximately 1,800 km. of 230 kV transmission lines connecting Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica and Panama, enabling the countries to exchange up to 300 MW, and its estimated cost will be $ 320 Million. The project also contemplates a regional legal and regulatory framework for energy trade between the member countries.

by ICE, and contesting of smaller-scale hydroelectric projects[34]. (Barrantes, 2005, pp. 22-23; Duran, 2002). One of the earliest and most visible examples of the latter involves the opposition starting in 1998 against several (four private and one public) hydroelectric projects by the local communities in Perez Zeledon County, with the support of environmental groups and the local bishop (Barrantes, p. 23; see also P. Ureña, 2002).

b. Governance Dynamics. The governance dynamics during this period were complex, since the country faced one of its most accelerated periods of economic turmoil and political transformation. The economic restructuring measures implemented after the economic crisis of the early 80s, were complemented with a social relief plan. However, public services, including electricity were not initially included in these social relief measures. This set off national protests, which led to a shift away from the use of public service rates to balance the deficit. However, the governance of the electricity infrastructure was also affected by the State's need to balance its macroeconomic indicators.

c. Governance Transformations. This period marks the transition period from the Welfare State model that had prevailed until the economic crisis to a Neo-Liberal State. During this period, the country was influenced by the region's thrust in the 1990's for

[34] The latter was most commonly associated with the outcry against private generation companies and their alleged ties to high level politicians, although some projects by public utilities and regional cooperatives also faced opposition.

privatizing public services, however, Costa Rican policy-makers framed a more gradual and particular solution for private participation in the electric sector.

d. Political Opportunity Structure. Under the specter of economic crisis, this phase witnessed a major economic and political reform, accompanied by social compensation measures, which at first shifted economic the burden to public service rates. However, when faced with growing social protests, the economic hardship already faced by the population narrowed the State's possibilities for repressive actions, resulting in accommodation.

During the 1990's increasing legal reforms also strengthened formal mechanisms for government accountability, like the creation of a Constitutional Court and Ombudsman's Office and expanded competencies of the State's Attorney and the State's Comptroller (Programa Estado de la Nación, 2004, pp. 317-320).

The 1983 strike was one example where the protesters were able to build coalitions with some members of the elites in positions of power, for example, by the peak of the movement, the organizers had obtained the support of 29 members of Congress (only four of whom were from the left) and 50 municipalities. (Alvarenga, 2005, p. 228).

e. Social control frames and social movement ideas. Two settings that reflect the spectrum of political thought about electricity governance are the 1983 national strike and the political "tug-off-war" concerning the privatization of ICE in the 1990's. The first

instance shows that electricity was not seen at first as a service that needed to be included within the compensatory measures that balanced the social costs of the economic reform. At the same time, the popular outcry took place under different conditions than the previous San Jose electricity rate protests of the 1950's and 1960's, since by then electricity services had been completely nationalized. In this instance, the discourse of the protestors shows high distrust, not only for the political elites, but also for the personnel of the power distribution companies, including ICE[35].

In terms of the controversy regarding the privatization of ICE, Sojo (2004) points out that there main political discourses on this matter can be divided into three camps. He identifies the first of these as the "labor" group, comprised of ICE's labor unions, sectors of ICE's management, and other trade unions and associations from public institutions. The second group he designates the "nationalistic" group, made up of groups ideologically opposed to neo-liberal reforms, as well as environmentalist and student organizations. The final group, which Sojo labels the "pro-privatization" group, is comprised of the members from political parties and of corporate groups that ideologically favor the opening of public monopolies and greater privatization. (pp. 33-36).

[35] According to Alvarenga (2005) the discourse of the 1983 protesters was permeated with a high level of distrust towards the billing function of the distribution companies, (which would include CNFL, ICE, and the other regional companies), suggesting that rates higher than those published by the government were being applied, and that the company employees were recording higher than actual consumption (p. 241).

The discourse of nationalistic organizations included ideological elements such as "national sovereignty; the demand for transparency and a halt to corruption; coverage driven by criteria of territorial and social equity; and the prevalence of public interests." (Sojo, 2005, p. 37). A central issue was the emergence of ICE as a symbol of national identity, sovereignty and the welfare state. (Alvarenga, 2005, p. 279).

The "labor" group, on the other hand, favored certain aspects of modernizing ICE, primarily those concerning the removal of limitations that prevented ICE from reinvesting its own surplus to strengthen its capacity and upgrade its technology and infrastructure, but they opposed increased private participation and the opening of ICE's monopoly. Therefore they were also opposed to the combined project. They had therefore established alliances with the "nationalistic" groups. (Sojo, 2004, p. 35).

Finally, the "pro-privatization" group focused on fiscal elements which it considered essential for the needed institutional reform. Three related elements were vital to its financial perspective: concern for the fiscal balance of ICE as an integral part of the public sector's overall financial health indicators; concern that ICE can only become competitive in a context of openness of the market to other private enterprises; and the view that only privatization can attract additional private capital which will bring about needed social benefits. (p. 36).

f. Social movement scaling-up. The 1983 strike showed a strong accumulation of organizing capacity by social movements. The movement began in the working class neighborhood of Hatillo, and quickly sprouted into a country-wide coordinating committee (Comite Nacional de Lucha) that incorporated 52 labor organization and 140 local committees. A nationwide "no-payment" strike ensued in May and was sustained until June. As the government found itself hard pressed to contend with the outcry of a population hard hit by years of crisis, dissent built up within its own institutions. Hence, the protesters were able to build coalitions with some members of the elites in positions of power, for example, by the peak of the movement, the organizers had obtained the support of 29 members of Congress (only four of whom were from the left) and 50 municipalities (Alvarenga, 2005, p. 228). Presumably, what would often be an ally of the popular classes in the future, the coalition of ICE's unions, did not support them on this occasion.

While many of these stakeholders continued to be active on different social and environmental issues during the rest of this period, their capacity for consolidation as a national movement can best be appreciated in the next phase.

Phase V. New governance paths surface amidst the "Combo" conflict (1998-2007).

a. Main Occurrences. Facing low levels of public trust in government institutions, and a narrow electoral victory, newly elected President Rodriguez issued an executive

decree in June of 1998 that convened a National Consensus-Building Forum and appointed a multi-sector bodies, that included a Coordination Table, an Executive Secretariat, a Board of Mediators, and a Verification Committee; furthermore, it was decided that ten selected issues would be addressed through the forum: family welfare, severance benefits, corruption, rural development, union rights, pensions, wage policies, insurances, environmental services and telecommunications (Barahona, Gallardo & Sojo, 2005, p. 43).

The process had a social dialogue phase (lasting three weeks) where an expanded constituency that included representatives from the Catholic Church, public universities, and other sectors of organized civil society participated in the formulation of consensual agreements. In principle, these agreements would then be turned into laws by the Legislature. The translation of these agreements into laws was not accomplished as originally expected. Furthermore, many social actors were distrustful of the process because they saw it as cooptation into the neoliberal agenda, others distrusted the process because they were not invited, and others criticized the process for being orchestrated exclusively from San Jose and excluding regional and local organizations. (Barahona, Gallardo & Sojo, 2005, p 57).

The Telecommunications Commission of the Consensus-building forum met very intensely[36] and developed several proposals with consensus or high levels of

[36] It held 27 sessions, whereas the number of sessions for the other commissions was between 13 and 16 (Sojo, 2004, p 26).

agreement: removing limitations to ICE's investment, creating a Telecommunications Regulator independent from ARESEP, strengthening ICE and reforming its Board of Directors, creation of a General Telecommunications Law, and finally, gradual opening of the telecommunications market.

In 1999, seeking to expedite Congressional Approval, the Rodriguez administration fused the agreements from the Telecommunications consensus process into a single bill that contemplated an extensive proposal for reforming ICE. The proposal contemplated the consolidation of the separation between ICE's electric and telecommunications sectors, the opening of the telecommunications market, a procedure for expanding private electricity generation and the decrease of ICE's monopoly on electric distribution, and the strengthening and institutional modernization of ICE (Sojo, 2004, p. 27).

The new bill, which came to be known colloquially as the "Combo ICE" attained a swift preliminary approval in Congress in March of 2000, only three months after it began its congressional debate. However, the combination approach, in addition to fusing a number of initiatives that had been framed separately in the Consensus-building process, also added some measures, like those concerning the electricity sector, which had never been discussed in this forum. This prompted strong opposition from a number of social sectors. As even Rodriguez himself later recognized, the "opportunity" gained by negotiation three separate bills at once was offset by the fact of facing the

aggregation of the opponents to each of the different measures (cited in Sojo, 2004, p. 28).

The bill's preliminary approval set off a large number of protests all across the country, which were sustained just over two weeks until a jointly designated facilitation commission was able to bring representatives from both sides together for negotiations[37]. A fundamental factor in the viability of this large scale social movement was the pre-existence of other local contentious groups addressing social issues, some of which were related to electricity governance.

Contestation of electric infrastructure projects was a strong social movement issue at two levels: opposition to large dam development by ICE, and opposition to smaller-scale hydroelectric projects by private developers[38]. (Barrantes, 2005, pp. 22-23; Duran, 2002). One of the earliest and most visible examples of the latter involves the opposition starting in 1998 against several (four private and one public) hydroelectric projects by the local communities in Perez Zeledon County, with the support of environmental groups and the local bishop (Barrantes, p. 23; see also P. Ureña, 2002). Regarding large-scale dams being developed by ICE, the opposition often involved local

[37] According to the 2001 State of the Nation Report, one local newspaper reported 244 social movement actions, distributed throughout the country, over 16 days (between the day when the bill was first debated and approved in Congress and the start of talks convened by the facilitation commission). The commission was made up of public university authorities, the Ombudsman, and the Bishop of Limon). (Rojas, 2001, pp. 27-28).

[38] The latter was most commonly associated with the outcry against private generation companies and their alleged ties to high level politicians, although some projects by public utilities and regional cooperatives also faced opposition.

communities and environmental groups, but it generally also included two actors that were gaining increasing leverage for protecting their interests: indigenous peoples, and whitewater rafting companies[39].

The negotiation process that ensued after the sixteen days of protests led to agreements on three levels: to establish a special commission with multi sector representation that would suggest revisions to the bill[40]; to withdraw the existing bill from the Congressional Agenda for 150 days (extendable) and to hear instead upon its conclusion the initiatives generated by the multi-sector commission; and finally a mutual agreement that the demonstrators would cease their direct actions and that the government would not take any reprisals. However, two weeks after the agreements had been reached, the Constitutional Court declared the bill unconstitutional due to the violation of constitutional norms, principles and values in its approval process. This situation left the Commission without legal footing, since they had been mandated to provide revisions to the existing bill. (Rojas, 2001, p. 30).

---

[39] Indigenous peoples had gained increased protection through the ratification of International Labor Organization Convention 169 by Costa Rica in 1992. This rendered them a fundamental stakeholder in the consultation and participation process for the large-scale Boruca and Pacuare projets, which substantially affected their communal lands. (Duran, 2004, p. 11). Whitewater rafting companies emerged in Costa Rica in the mid-1980's and have since played a crucial role, particularly in the Reventazon and Pacuare rivers, in promoting to the local populations the idea that there are economic and development opportunities – associated to river conservation – which pose much less impact on river ecosystems than large dams. They represented a major source of opposition to the Angostura project in the Reventazon River, although they were unable to stop its construction. Consequentially, when ICE's promised boom of lakeside tourism did not materialize in the Angostura reservoir, while rafting tourism dropped, this became a major public relations setback for ICE and bolstered opposition to its subsequent large-scale projects. (Gallo, 2005, p. 11; Duran, 2005, p. 22).

[40] The Commission was made up of representatives from: Congress (9), ICE's trade unions (3), university students (1), environmentalists (1), grassroots Catholic Church groups (2), private enterprise (1) and the Central Government (1).

Although congressional rules already contemplated the figure of ad-hoc multi-sector – or "mixed - legislative commissions (in which non-congressional members participated as 'advisors' with voice but without vote), their prevalence and visibility greatly increased after the Combo incident, as a short-term solution to the declining citizen trust in a Congress controlled by traditional parties. However, there is still uncertainty about their effectiveness in addressing the need for stronger pluralistic representation and more participatory and legitimate governance processes. (Rivera, Rojas, Zeledon & Guzman, 2006, p. 100)[41].

Other social movement actions, in addition to those of the anti-Combo block, also affected the governance of the electric sector in the current decade. One of the most relevant involved the creation of new modes of protest which employed the very institutions created by the Costa Rican State for its own control and the protection of citizen's rights, such as Municipal plebiscites, Writs of Amparo before the Constitutional Court, and grievances before the Administrative Environmental Court. One of these actions has legally frozen the process of water concessions to private generators, effectively blocking their participation in new projects.

[41] In the specific case of ICE's Institutional Reform, a second multi-sector Commission for ICE's legal reform was established in 2003 but its mandate expired in 2005 without an approved draft. (Bermudez, 2005, "El concenso esquivo" paragraph 1). Subsequently, the bill's drafting process reverted to an exclusively congressional Commission, which agreed to consider incorporating elements from alternate texts by private sector and civil society organizations. After the 2006 elections, President-elect Arias announced that his administration would scrap the bill under parliamentary review due to conflicts with the Free Trade Agreement signed between Central American, the United States and the Dominican Republic (DR-CAFTA). (Murillo, 2006, paragraph 4). The most recent version of the bill's has been drafted, but discussion in Congress was obstructed by the parties opposing DR-CAFTA, pending the resolution of a referendum that will determine whether the treaty will be ratified. (Cerdas, 2007, paragraph 1).

In the case of the large-scale dams, which ICE considers essential to meet the long term base demand of the country, the issues of indigenous sovereignty and the protection of conservation areas have become crucial, since approximately one third of the hydroelectric potential currently identified and untapped is located fully or partly within Indigenous Reserves, and another 14% is located within National Parks. (Instituto Costarricense de Electricidad, 2006, p. 12). This has led to opposition from indigenous and environmental groups, which has pressured ICE to desist from its two highest capacity dams and seek alternatives.[42]

The opposition to both ICE's dams and private generation projects has not been uniform in all cases. Some groups, like private rafting operators, have been more open to small-scale run-of-the-river or low-volume reservoir hydroelectric projects (Liddell, 2007, paragraph 14). Other organizations have been supportive of ICE as part of the welfare state and primarily oppose private generation from an anti-neoliberalism stance (Jiménez, Flores, Rivas & Quesada, 2003, p. 6). Nonetheless, there is a significant generalized anti-hydroelectricity movement in the country, which has even played a major role in establishing a regional anti-hydroelectricity network of organization in Central America. (Castro, 2006, "Dar respuesta al reto requiere valor" paragraph 3).

[42] Indigenous groups have opposed relocation and flooding of communal lands which they value culturally, socially and spiritually, and have accused ICE of failing to consult and address community concerns before initiating fieldwork on the projects, and of trying to manipulate communities when consultation processes were initiated later. (BORUCA) Environmental groups, in addition to criticizing the social impacts of large dams, have questioned the environmental impacts on riparian ecosystems, the potential for encroachment on National Parks, and the merit of the projects themselves in relation to the country's own needs, since the planned expansion will exceed the country's total demand for the initial years, and will therefore be significantly destined for export through the SIEPAC grid (Duran, 2005, p. 22)

Meanwhile, there has also been a diverse response from both public and private groups involved in electricity generation. In ICE's case, it has sought to strengthen its image as an institution with a mandate of sustainability and solidarity. It has developed a watershed management program, specifically targeting four regions, where its projects have faced social movement opposition (Porras & Neves, 2006, p. 2). Some private generators have also sought a stronger environmental image, either by seeking green certification (such as ISO 14000) or by supporting watershed conservation through payment for environmental services (Granados, 2006, pp. 25; Anderson, Pringle & Rojas, 2006, p. 684). Finally, given the freeze of new concessions for private generators, the municipal and cooperative electricity distribution companies (ESPH, JASEC, and the four Cooperatives) have become the only entities, beside ICE and CNFL, with a viable alternative to develop of small hydroelectric projects. The legal capacity of these distributors to generate electricity could potentially be expanded (allowing the development of projects up to 60 MW and up to 30% of the total national grid's capacity) under a new bill, commonly known as the Conelectricas Law. (Infopress Centroamericana, 2003, paragraph 2).

Thus, if a private developer wishes to generate electricity, its only alternative under this framework is to create a partnership with a public distribution company, where they would each own a percentage of the project that generates the electricity. Under this arrangement, the distribution company would own a significant percentage of the shares of the project and be the one requesting the water concession, but private companies could possibly own a portion of the project's shares as well. However, this arrangement

is being criticized by the social movement stakeholders who oppose opening the activity to the private sector. (Infopress Centroamericana, 2003, paragraph 11). Yet other private developers see the Costa Rica private electricity market as unviable and have taken on a strategy of "exporting" Costa Rican expertise to other Central American countries where the market is open to private investment. (Vega, 2005, p. 30).

A recent participative multi-stakeholder process for drafting the new Water Resources Bill, hailed as one of the most promising examples of collaborative natural resource governance, is a revealing indicator of the current level of intractability of the hydroelectricity issue. Over 21 months of multi-stakeholder country-wide dialogue, the process overcame a prolonged Congressional impasse between three different versions of the Bill, each of which had been rigidly defended by interest groups. A new draft reaching consensus over the most disputed issues was produced. However, the inclusion of concessions for private hydroelectric generators in the new law remained a highly polarized issue, since "many of the social actors tend to firmly oppose the current energy model, while the entities responsible for it defend it tooth and nail" (Aguilar, Alvarado, Astorga, Avendaño, Blanco, Mora-Portuguez, et. al., 2004, p. 68).

In the broader regional and international context, there is a growing split in the sustainability discourse. One outlook hails hydroelectricity as an essential element in climate change mitigation and regional development, while a contrasting viewpoint denounces dams as a source of social and ecological harm, disproportionately imposed on disenfranchised populations (Cevallos, 2006, paragraph 2; Conca, 2006, p. 378).

The current administration (Oscar Arias, 2006-2010), would seem to resonate more strongly with the camp in favor of hydroelectricity and concerned over climate change mitigation. A central aim of this administration's electricity policy is to steer the country to generate 100% of its electricity from renewable sources by 2021. Given the country's resource matrix and technical know-how, this means that most of the 370 MW projected renewable resource electric capacity increase by 2010, will need to come from hydroelectricity. (Ministerio de Planificación Nacional y Política Económica – MIDEPLAN, 2007, pp. 81, 83).

However, ICE's expansion plan, drafted at the end of the previous administration (Abel Pacheco, 2002-2006), makes an assessment more in line with the recent challenges of electricity infrastructure development, and forecast that under current trends greater dependence on fossil fuel-based thermal generation is expected by 2012 (ICE, 2006, p. 50). The same report attributes this projected increase in fossil-fuel dependence to several factors including: the shortage of viable new sites for large dams, the high early-stage investment costs of hydroelectricity relative to thermal plants, the decreasing costs of combined-cycle natural gas technologies, and the growing opposition by neighbor and conservationist groups to hydropower (p. 31).

Whereas ICE's expansion plan attempted to convey a somewhat balanced outlook of the motivation of opposing groups, who in its view "assign greater importance to local impacts, sometimes transitory and not as relevant, than to global benefits" (ICE, 2006,

p. 31); the new administration, despite its heightened commitment to renewable electricity projects, has shown little interest in exploring the underlying concerns of the environmental and community groups, despite their considerable effectiveness during the last decade in preventing new hydroelectric projects from being constructed.

Between April 18 and May 4 of 2007, ICE's contingency plan failed to meet the country's demand[43], consequently, daily nationwide power cuts of up to five hours had to be implemented (Avalos, 2007, paragraph 14). A few days after the crisis passed, President Arias presented before Congress his first annual report on his administration. In his address, he attributed the crisis to four major causes: unpredictable rain regimes due to global warming; wear-down of the country's older generating plants (he referenced particularly the thermal plants, presumably because these are peak demand units which had been overstressed to meet base demand); longstanding limitations to ICE's in making investments in generation; and ideological prejudice which had 'clouded the understanding of some very important sectors in ICE's decision making', and which resulted in their opposition to private participation in electricity generation. (Arias, 2007, p. 11).

The President's speech overlooked the fact, outlined in the previous two sections of this Chapter, that not only private generation projects, but ICE's own generation projects had been stopped by civil society opposition. Furthermore, it dismissed the concerns of

[43] The primary immediate causes reported by ICE were equipment failures in two thermal plants and one hydroelectric plant, as well as the electric crisis in Panama which made it impossible to import electricity from that country, as had been originally forecasted for that season in ICE's expansion plan. (Loaiza, 2007, paragraph 17).

those opposing electric infrastructure development as an “indefensible ideological prejudice”. (Arias, 2007, p. 12). On the opposing camp, the discourse of environmental activist groups and labor organizations framed the President’s emphasis on private electricity generation as evidence that the situation leading to the power cuts had been caused by the political classes themselves (either through gradual strangling of ICE’s technical capacity or by outright sabotage). These groups further asserted that the power cuts had been provoked in order to exploit them politically to make public opinion more favorable to neoliberal privatization policies, like the ratification of the Free Trade Agreement between Central America, the Dominican Republic and the United States (DR-CAFTA) and others involving greater private sector participation in ICE’s commercial niches of telecommunications and electricity. (Red Latinoamericana contra represas y por los rios, sus comunidades y el agua, 2007, paragraph 1).

b./c. Governance Dynamics & Governance Transformations. Prior to the attempts at social dialogue that sprouted in this period, two approaches had predominated: the technocratic decision-making approach was dominant prior to the 1980’s, when public institution labor sectors had significant leverage with the Central Government as both technical experts and special interest groups; and the bipartisan approach, which became dominant following the restructuring processes after the 1980’s, once deals between the major political parties overrode the importance of central government negotiations with the public institution labor sectors. (Sojo, 2004, p. 37).

d. Political Opportunity Structure. In May of 1998, President Rodriguez began his presidential term after an unexpectedly narrow win at the polls, at a time when public attitudes towards the institutions of traditional democracy were starting to become characterized by "apathy, disenchantment and distrust".[44] Several voices in the country's political spectrum, not the least of which was the Conference of Catholic Bishops[45], had called for a process that would build collaboration and consensus among social stakeholders. Thus, the Consensus-building process sought to answer to this decline in the legitimation of traditional democratic institutions.

The integration of separate bills into a single Combo bill facilitated the consolidation of a national opposing coalition, which articulated already existing contentious movements. The search for participative paths to decision-making is also visible in the post-Combo flourishing of Multi-sector commissions.

e. Social control frames and social movement ideas. The "Combo" conflict set the ground for the definition of major political cleavages related to the country's electric development. One of them involved the opposition to private participation in electricity generation; the other involved the opposition to medium and large-scale hydroelectric infrastructure projects. In terms of the nationalist discourse, ICE is depicted as an

---

[44] Rodriguez won by a margin was just 2.1%, while the opinon polls had predicted a 7-10% margin; furthermore, an independent study had indicated that only 53% of Costa Ricans were satisfied with Costa Rican democracy, whereas 42% said they were dissatisfied; the abstention levels in the 1998 elections had reached 32%, something unprecedented in at least the past four decades. (Barahona, Gallardo & Sojo, 2005, pp. 39-40).

[45] The Bishops had issued a letter calling for an "open, participative and systematic" process of consensos-building in December of 1997 (Barahona, Gallardo & Sojo, 2005, p. 40).

enduring source of national pride (Asamblea Legislativa de la República de Costa Rica, 2003, p. 5; Acevedo, 2002, p. 42), and a uniquely Costa Rican and even 'heroic' instrument for both development and solidarity (Alvarenga, p. 280; Amador, 2000, p.2). Its defense is tied to a historic struggle for national sovereignty and for supporting the poor and middle classes against the abuses of the oligarchy (Alvarenga, p.281; Solis, 2002, p. 43). While this imagery resonates with the nationalization movements of the 1930s, 1940's and 1950's, ironically it overlooks some of the features of the energy protests of later decades (particularly the 1963-64 and 1983 protests) where in the first case, the zeal to replace ICE with a regional body had even led to instances of sabotage, and in the latter, generalized accusations of falsified meter readings suggest widespread distrust in the State electric companies (Alvarenga, pp. 197, 242).

ICE's heroic image, however, is set aside by communities and environmentalists who belong to this movement when it comes to opposing one of ICE's large scale hydroelectric projects. In these cases, ICE's role is criticized as lacking in social responsibility.

While ICE is generally seen as an element of identity, the alliance of "nationalistic" and "labor" protesters also identified their nemesis. The image of the enemy was filled by domestic stakeholders, whom they saw as gaining the most from privatization, often called "the political class", they were accused of "corruption, voraciousness, autism and sterility" (Solis, p. 34). While maintaining their diverse identities and agendas (job security, defending a socially-oriented public service model, preventing private

investment in activities that threatened to cause environmental damage and forced relocation, etc), anti-Combo organizations were able to articulate their work around a common discourse regarding what they saw as an attempt by the political class to execute a privatization, disguised as a modernization, of one of the most valuable public companies.

Conversely, the “pro-privatization” group argued that the bill’s opponents were mistaken or ignorant about the real issues, citing as example the substantial number of high school students who participate in road blocks and demonstrations, but had only superficial information about the bill. Furthermore, they interpreted the reasons of the different interest groups opposing the bill as having little in common with each other, thus suggesting that the unified opposition was articulated on dogmatic grounds instead of reflecting actual deficiencies of the modernization project. (Sojo, 2004, p. 28).

f. Social movement scaling-up. The main trend in this phase is the formation of a socially diverse social movement with high coincidence in its agenda on the issues of the defense of solidarity and the opposition to privatization. However, the movement also has unresolved points of contention, such as the defense of ICE as a symbol, but the opposition to ICE’s projects on the ground. A key characteristic of the movement is its capacity to innovate on its approaches to collective action. As stated, the organizations leading the grassroots opposition to the hydroelectric projects in Perez Zeledon used different methods, from road blocks to town meetings, and finally succeeding in preventing the construction of the projects by filing a writ before the

Constitutional Court, who ruled that under the existing legal framework the Environment Ministry was not empowered to issue water concessions. (P. Ureña, p. 155).

Other communities opposing projects in different parts of the country also turned to creative new approaches for contention, for example, three municipalities: Guacimo, Sarapiqui and Turrialba, held plebiscites where the majority of voters either directly opposed a project or declared a special protection status for rivers where projects were being planned. Other communities denounced projects before the Environmental Court for instances of environmental degradation. (Barrantes, 2005, p. 23, Duran, 2005, p. 22). Furthermore, activists also raised the issue of disproportionate benefits under certain Power Purchase Agreements (PPAs) between ICE and private generators. [46]

Closing remarks: Looking ahead

The scenario described in this section suggests that Costa Rica has reached a point where, despite its challenges, the construction of mutual understanding between the different stakeholders of the electric sector has become urgent. The country's historic reliance on hydroelectricity as the backbone of its power system has increasingly become a divisive issue and this has also become linked to a broader confrontation between competing international worldviews about sustainability. A reciprocal

[46] This led to a report by the National Comptroller finding certain clauses in fifteen PPAs illegal, and instructing ICE to initiate legal procedures to rescind those clauses. (Granados, 2006, p.14). However, the Costa Rican government, under pressured from the Overseas Private Investment Corporation (OPIC), a United States agency that insures US corporations against overseas investment political risks, did not follow the Comptroller's directive. (Romero, 2004, p. 28).

dismissive and distrustful attitude permeates the discourse of the groups having the strongest influence on public opinion. Possible alternative solutions, addressing alternate technologies or conservation measures have been mostly absent from the agendas of the main stakeholders. Finally, the country seems to be reaching an highly volatile juncture where decision making is becoming inevitably influenced by controversy over overarching policy issues (like DR-CAFTA) and by crisis levels in the national electric system, resulting from years of inaction in either demand reduction or capacity expansion.

CHAPTER VI

EXPLORING PLURALISM AND COMPLEXITY IN ENVIRONMENTAL DEMOCRACY WORLDVIEWS

This chapter describes and interprets the results of the field data collected from the selected sample of electricity policy stakeholders using Q-methodology. As was explained in the methodology section, the Q-method study consisted of five "decks" each containing nine statements, the combination of all the statements (which in this case were divided into five decks) is generally called the Q-set in this methodology.

Two of the decks contained statements that represented possible answers to questions about the relationship between sustainability and the prevailing electric development model. Two other decks contained possible answers to questions about visions of democracy and how they related to the sustainability of the electricity sector. The question addressed in the fifth and final deck inquired about which social and environmental values were rated more highly by the respondent.

The statements contained in each deck were chosen from words published, or spoken in a public setting, by experts or high profile individuals, and can be seen to represent a appropriately diverse subset of the myriad viewpoints, according to the theory that supported the development of Q-methodology, this set of all the possible viewpoints that

people have on a given issue is called the Concourse. The process of preparing the Q-decks is described in more detail in the corresponding section of Chapter 3, which outlines the methodology. The final completed Q-sets are contained in Appendix A.

The collection of empirical data about the actual viewpoints in Q-methodology is done through Q-sorts. In each Q-sort, a participant in the study is asked to sort the statements from each deck in accordance to his own assessment of them (for example, from “I’m least in agreement with” to “I am most in agreement with”). The total set of persons participating in the study (that is, the ones doing the sorting of the statements) is called the P-set. In Q-methodology, the size of the P set is generally smaller than is accustomed in the respondent samples of other statistical research techniques, requiring only “enough subjects to establish the existence of a factor for purposes of comparing one factor with another”, but without being concerned about what proportion of the population belongs in one factor rather than another (S.R. Brown, 1980, p. 192). The selection of the P set is therefore rooted in identifying a set of persons “who are theoretically relevant to the problem under consideration”. (S.R. Brown, p. 192).

In the case of this study, the theoretical problem to which this methodology is being applied is the exploration of pluralism regarding the notions of sustainability, democracy and environmental values that underlie the debate concerning hydroelectric development (between those who support and those who oppose large scale hydroelectric development and increased participation of the private sector in hydroelectric generation). Since this has often been presented as a two-sided debate,

the theoretically relevant population would be those in the supporting and opposing sides, as well as those stakeholders relevant to the electricity governance debate who appear to be "in the sidelines". As a result, the P set was designed to contain four persons on the "supporting side", four persons on the "opposing side", and a few stakeholders from the "sidelines" (between two and four). This would give a total number of respondents between ten and twelve. It is important to acknowledge that the "supporting side" and the "opposing side" could have been further divided in to sub-sides (for example, those who support small-scale private hydroelectric projects, but oppose large scale publically-owned dams, or those opposing electricity development in indigenous territories and national parks, but not run-of-the-river hydro by cooperatives outside these areas). However, the scope of fieldwork that would have been required to incorporate several cases of individuals within each of these subsets would have transcended the time and resources available to perform this research project. Therefore, some of that diversity is sought within the three previously identified sub-groups, but not systematically developed as separate subgroups with multiple respondents for each of those.

Furthermore, one of the participants contacted and interviewed to perform a Q-sort, from the subset of those "in opposition" agreed to participate in the study but declined to use the methodology of sorting Q-statements, arguing that she was not able to contrast one statement against another, since it seemed an artificial way of addressing her concerns. She instead offered a fairly lengthy interview discussing her views in relation to each of the statements. This means that in the final P set with whom the

methodology was applied, there were four “supporters”, three “opponents” and three “center” stakeholders, for a total of eleven participants. The participant characteristics are described in table 6.1.

Table 6.1. Characteristics of the participants in the Q method study (P set)

ID	Self-description	Issue Standing	Gender	Age	Educational Background
P1	Renewable energy and climate change policy analyst	Center	Male	51	Post-Doctorate
P2	Public policy analyst	Center	Male	35	Masters
P3	Renewable Energy Finance Officer	Supporter	Female	33	Undergraduate
P4	Conservation & Development policy analyst and implementer	Center	Female	46	Masters
P5	Private electricity developer (San Jose)	Supporter	Male	59	Technical
P6	Social ecology activist specializing in energy	Opponent	Male	33	Undergraduate
P7	Social-environmental activist and promoter of new ideas	Opponent	Male	30	Undergraduate (incomplete)
P8	Local environmental and legal activist	Opponent	Male	38	Undergraduate
P9	Cooperative utility environmental management director	Supporter	Male	46	Masters
P10	Private electricity developer (San Carlos)	Supporter	Male	34	Masters
P11	Private electricity resister/affected party (declined to perform the Q-sorts)	Opponent	Female	46	Undergraduate

The methodological notes detailing the process of extraction of the Q-Factors for the three issues studied in this Chapter are provided in Annex D. The remainder of this Chapter provides a synthesis of the results obtained and their analysis in terms of what they illustrate regarding the observed plurality of viewpoints and complexity of the issues involving electricity governance and views on democracy, sustainability and socio-environmental values.

SYNTHESIS AND DISCUSSION OF FINDINGS

The present section offers a synthesis of the findings concerning the factors identified in each of the core themes: problems of sustainability, principles of democracy and socio-environmental values. A detailed discussion of how each factor was extracted in provided in Appendix D. It is important to view the four factors under each theme in relation to one another to understand their significance in terms of the plurality of worldviews regarding electricity governance. Hence, this section shall outline the distinctive elements of each factor (or of each pole under a given factor). It will also undertake to explore what the relevant differences are between factors that seem very similar but which, according to the factoring process, have statistically significant elements that differentiate them.

About the electric sector's sustainability

For Questions 1 and 2, addressing the problems of sustainability and the required actions, the factoring process and its analysis revealed six different outlooks: one each corresponding to factors 1 and 4, and two each for factors 2 and 3 (one positively loaded, one negatively loaded).

The outlook that we have labeled **"structural transformers"** (factor 1) is characterized by its emphasis on the links between the existing approach to electricity generation and the ensuing negative impacts to communities and local ecosystems. Its framing of the problem attributes little importance to consumption patterns and to the global and local

impacts of fossil fuel emissions, and disputes the argument that “social contestation” of hydroelectricity is a source of the problem. Its approach to solving the problem involves a transformation of the “developmentalist” philosophy of the electric sector, and improved planning so that local communities can be involved and both increasing consumption and generation can be addressed.

The second outlook could be identified as **“rationalistic planners”** (positively loaded factor 2) and convey an understanding of the problem in terms of “non-technical pressures” comprised of two factors: high consumption and other external factors, which can be understood to refer primarily to social contestation. Their perspective on the solution is nation-wide planning that overcomes the “growth-centered focus” of the sector, earmarks certain river basins for protection, and incorporates consultation and balanced planning that addresses both efficiency of demand and supply. Hence, their framing of the problem nearly opposite to structural transformers, but their approach to the solution is quite similar.

Diametrically opposed to the rationalistic planners’ outlook is that of **“mediated development advocates”** (negatively loaded factor 2). This outlook shares with structural transformers a concern over the lack of community involvement in decision-making about the projects that will affect them, and see this as a systematic problem of the prevailing energy model. However, they do not share as strongly in the latter’s blanket attribution of all large scale projects as irrevocably damaging. Therefore, their perception of actions to resolve the problem includes several “productive” alternatives,

such as increased development of hydroelectricity, clear and transparent guidelines regulating electricity transactions, and the export of the country's "knowhow" in hydroelectric development, provided that all this is regulated through watershed management plans that ensure that communities have a say and that natural resources are conserved for the benefit of future generations.

The fourth outlook identified may be categorized as **"macro-economic value adherents"** who perceive as the key problem the global environmental and macro-economic impacts of high energy consumption and thermal generation, partly due to social movement contestation. This outlook supports well-defined energy market regulations and measures that preserve natural capital (Wilderness Areas and other environmentally vulnerable sites) and that constrain electricity demand growth to mitigate the economic imbalance. This is the perspective that attributes the greatest level of importance to global or macro-economic factors, and is therefore most removed from the local sphere.

Counter-balancing the previous approach, the fifth outlook (negative factor 3) takes individual watersheds as its main focus, citing the synergic impacts of multiple projects in a single watershed as the greatest problem, and complementary to this, indicating "non-technical" influences on watershed management as problematic. We have named this outlook **"watershed technocracy"** because it prioritizes both the role of the expert and the local ecosystem approach. Its approach to resolving the problem is to

undertake planning through the Ministry experts, with the goal of ensuring both intra-generational and inter-generation equity.

The final outlook (positive factor 4) recognizes many of the problems that the previous outlooks have identified, particularly those highlighted by the watershed technocrats, the macro-economic value adherents, and the rationalistic planners. However, for this outlook, there are a number of secondary problems: cumulative impacts of many projects in a single watershed, increased greenhouse gas emissions and non-technical pressures, all of which are subordinated to the central problem of growing consumption. For this outlook, there needs to be action on a dual scale, both planning at the watershed level and taking broader actions that curtail consumption. This outlook has therefore been labeled as **"planned mitigation".**

About the democratic values espoused

For the case of Questions 4 and 5, involving the key democratic principles and the barriers to their application, the analysis evidenced five distinct outlooks: one corresponding to the positively loaded factors 1, 3 and 4, and two (antipodal) factors corresponding to factor 2.

The first outlook (factor 1) gives precedence to the values of inclusion of diverse stakeholders, particularly local stakeholders, the autonomy of indigenous peoples, and the generation of consensus regarding the electricity development model that is most

appropriate for the country. Therefore, this outlook has been labeled as the **"social engagement and indigenous autonomy"** view. As the main barrier to the realization of this principle, this outlook identifies two perspectives of capitalism: "that profit must take precedence over the common good", and that "planning must make allowances for unlimited growth".

Another outlook shares the community engagement and indigenous sovereignty elements with the previous one, but it furthermore elevates the role of institutions of the welfare State (such as ICE). As the corresponding statement reads, the outlook corresponding to positive factor 2 stresses the responsibility by these institutions, which "have been defended [from privatization] by the citizens". This view has been labeled as **"generative politics"** between the institutions and the citizenry, a conception that echoes the principles of reflexive modernity conceptualized by Anthony Giddens (1994, p. 99) already discussed in chapter 2. (The barriers to this principle are viewed as "mercantilistic" values and the increased pressures for control over local natural resources in the context of globalization.

For the issue of democratic principles, the preceding outlook is the only one that has a direct antipode (negatively loaded factor 2). This opposing view privileges the principles of rule of law, with clear and transparent regulations, and citizen oversight. It views "the premise of planning for unlimited growth" and the contestation of one type of generation (hydroelectricity) by groups that do not speak up about other types of polluting generation (fossil fuels) as the main barriers to the application of these principles. The

label chosen for this outlook **“regulation with unbiased participation”** reflects its focus on government regulations and citizen oversight, provided this oversight is not skewed against a given type of industry.

The fourth outlook (factor three) identifies with a three-way formulation of democratic principles: application of transparent and clearly defined guidelines (“rule of law” or “judicial security”), combined participation of the public and private sectors under said clear regulations, and inclusive participation in decision-making that respects consensus achieved in local (and bioregional) spaces. This outlook therefore combines concerns that are exemplified by the previous three outlooks: with the *social engagement* and generative politics it shares an awareness that participation and respecting ecosystemic consensus is fundamental; with the *regulation plus unbiased participation* it shares the conviction that transparent guidelines and the rule of law are paramount. Furthermore, this outlook, unlike the previous three, assigns high relevance to a clear framework for participation of the private sector, alongside the public sector. Like the *regulation with unbiased participation* outlook discussed previously, this view sees biased contestation of hydroelectricity without comparable criticism of fossil-fuel generation as one of the main barriers to its conception of democracy. The other barrier from this perspective is represented by the growing needs of Costa Rican society. This outlook has therefore been characterized as **“regulated bisectoralism and participation”**.

The final outlook on this theme shares with the previous two outlooks the concern over transparent and clear regulations. It also shares with the outlooks of *regulated bisectoralism* and *generative politics* the principle of participation and respect for bioregional consensus. Finally, it shares with *regulation with unbiased participation* the conviction that citizens must oversee the actions of government. It is therefore a view that can be characterized as advocating ***"clear rules, consensus and oversight".*** It can be distinguished from *regulated bisectoralism* because it does not assign importance to private participation. It can be distinguished from the Factor 2 outlooks because it neither assigns importance to institutions for the common good, not to the issue of contentious movements as a barrier. It can be distinguished from Factor 1 because it does not prioritize indigenous sovereignty, not does it perceive mercantilism as the main obstacle to its democratic ideals.

About socio-environmental values

As regards to Question 6, "What socio-environmental principle should be followed in electric development?", the analysis yielded six distinct outlooks. Two of these outlooks correspond to the single-pole loadings for factors 2 and 4. The remaining four outlooks correspond to antipodal views for factor 1 and factor 3.

Factor one yielded two outlooks: **"entrepreneurial balance"** (positively loaded) and the opposing **"constraint under local/cultural rights".** The former stressed the

importance of balancing conservation and production through good entrepreneurship, which should aim to ensure efficiency, quality and good environmental management. The latter outlook prioritizes the characteristics of "the local" (culturally and bio-regionally) and the primacy of the precautionary principle in areas that are socially or environmentally sensitive.

The third outlook identified was **"care and efficiency through entrepreneurship"** (positive factor 2). This outlook prioritizes entrepreneurial efficiency, but within a context that stresses mitigating the consumption as well as efficient generation of electricity. In this sense, it disagrees with higher generation capacity for the sake of export.

The fourth and fifth outlooks correspond to positively and negatively loaded poles of factor 3. The first of these, as in the previous case, prioritizes lower consumption of electricity; it also emphasizes the balance between conservation and production. Finally, this outlook also attributes great importance to the respect of cultural heritage as a vital element for the conservation of natural resources. Given the combination of these elements, this outlook has been identified as **"safeguarding culture through balance and efficiency"**. Its opposing argument (negative factor 3) prioritizes good entrepreneurial management, as do other outlooks in this theme, but it also asserts that production of energy, when it is done through clean technologies, should be maximized. Furthermore, it also promotes the economic development whenever possible not only of energy production with national resources, but of other associated services where

Costa Rica has competitive standing, for example, its human capital. This outlook is therefore dubbed the **"maximum managed growth"** view.

The sixth and final outlook related to this theme corresponds to factor 4. This outlook advocates a balance between conservation and productivity, while safeguarding sensitive areas through the precautionary principle. This outlook can be defined as **"balanced and cautionary use"**.

A bird's eye view of the discursive landscape

Having analyzed each theme in turn (sustainability, democracy and socio-environmental values) it is now possible to assemble a map of the resulting landscape of multiple actors and worldviews which was identified through the use of Q-methodology in this study. The multiplicity of outlooks and themes are summarized and arranged for each of the study's participants in Table 6.2.

From this integration of the Q-study's findings some observations can be made about the depth of pluralism that underlies the debate about the "correct" model for electricity development in Costa Rica. To begin with, several observations can be made from the range and multiplicity of outlooks. To begin with, it is noteworthy that even people who are "lumped on the same side" in either of the extremes of a debate as polarized as this one, have noticeable differences in their views about the full array of issues related to this debate.

Table 6.2 Summary Chart of Participant Outlooks

ID	Self-description	Issue Standing	Themes		
			Sustainability Problems	Principles of Democracy	Socio-environmental Values
			Outlook / Factor (loading)	Outlook / Factor (loading)	Outlook / Factor (loading)
P1	Renewable energy and climate change policy analyst	Center	***Planned Mitigation*** **Factor 4 (positive)**	***Regulated bisectoralism & participation*** **Factor 3 (positive)**	***Care & Efficiency through Entrepreneurship*** **Factor 2 (positive)**
P2	Public policy analyst	Center	***Watershed Technocracy*** **Factor 3 (negative)**	***Clear rules, consensus & oversight*** **Factor 4 (positive)**	***Balanced & Cautionary Use*** **Factor 4 (positive)**
P3	Renewable Energy Finance Officer	Supporter	***Macro-economic value*** **Factor 3 (positive)**	***Regulated bisectoralism & participation*** **Factor 3 (positive)**	***Balanced & Cautionary Use*** **Factor 4 (positive)**
P4	Conservation & Development policy analyst and implementer	Center	***Structural Transformer*** **Factor 1 (positive)**	***Generative Politics*** **Factor 2 (positive)**	***Entrepreneurial Balance*** **Factor 1 (positive)**
P5	Private electricity developer (San Jose)	Supporter	***Planned Mitigation*** **Factor 4 (positive)**	***Regulated bisectoralism & participation*** **Factor 3 (positive)**	***Entrepreneurial Balance*** **Factor 1 (positive)**
P6	Social ecology activist specializing in energy	Opponent	***Structural Transformer*** **Factor 1 (positive)**	***Social Engagement & Indigenous Autonomy*** **Factor 1 (positive)**	***Constraint under local-cultural rights*** **Factor 1 (negative)**
P7	Social-environmental activist and promoter of new ideas	Opponent	***Mediated Development*** **Factor 2 (negative)**	***Social Engagement & Indigenous Autonomy*** **Factor 1 (positive)**	***Maximum Managed Growth*** **Factor 3 (negative)**
P8	Local environmental and legal activist	Opponent	***Structural Transformer*** **Factor 1 (positive)**	***Social Engagement & Indigenous Autonomy*** **Factor 1 (positive)**	***Safeguarding culture through balance & efficiency*** **Factor 3 (positive)**
P9	Cooperative utility environmental management director	Supporter	***Rationalistic Planner*** **Factor 2 (positive)**	***Generative Politics*** **Factor 2 (positive)**	***Care & Efficiency through Entrepreneurship*** **Factor 2 (positive)**
P10	Private electricity developer (San Carlos)	Supporter	***Rationalistic Planner*** **Factor 2 (positive)**	***Regulation with unbiased participation*** **Factor 2 (negative)**	***Balanced & Cautionary Use*** **Factor 4 (positive)**

One interesting instance supporting this assertion is the fact that only in two instances do participants share the same outlook about more than one of the themes explored in this chapter (the cases of P6 and P8 on the one hand and P1 and P5 on the other with regard to the themes of sustainability and democracy). Beyond these two examples, there are no other cases where participants share more than one outlook, and certainly there are no cases where participants share all three outlooks. This suggests that, at least for the small sample incorporated in this study, stakeholders in the electricity debate have distinct opinions about the different issues, even when they are on the same side of the debate.

The second immediate observation is that some participants who are generally regarded as being aligned on the same side of the overall debate have antipodal views about at least one of the issues explored in this study (this is the case for P7 and P8 with respect to socio-environmental values, and for P9 and P10 regarding democratic principles).

However, no pair of participants standing “on opposing sides” of the general issue were found to have identical outlooks on any of the themes studied. This means that people on opposite sides of the “electricity model” cleavage do articulate concrete differences on each of the topics identified. However, this may also be indicative of the degree of polarization which the debate has reached, and also of the fact that the Q-sample was constructed from statements that include some very adversarial views of the problem.

The situation shifts when it comes to participants on either of the extremes and participants in the center. In this case, there are several instances where two or more shared the same outlook in at least one of the topics. This indicates a possibility that the views of either group haven't completely estranged themselves from the views of the center. There is even a possibility that some groups may be naturally equipped to play the role of a mediator or "bridge" between the opposing sides. This might be illustrated by the case of the Conservation and Development policy analyst (P4) who shares the views about sustainability with two of the environmental activists (P6 and P8), while also sharing the outlook about democracy with the electric cooperative environmental manager (P9).

Furthermore, other important insights derive from viewing the interplay of outlooks concerning democracy, sustainability and socio-environmental values. In this discussion, it is appropriate to begin from the perspective of democracy, since this is the only theme on which all stakeholders opposing the dominant electricity development model were found to be in complete alignment. This has important implications for understanding the worldview of this group of stakeholders. The "social engagement and indigenous autonomy" outlook is very congruent with the more radical version of the civic engagement discourse of environmental governance identified by Bäckstrand and Lövbrand (2006, p. 57) and discussed in Chapter 2.

The awareness that the theme of democracy is the point of greatest consensus for all stakeholders acting as “the resistance” to the dominant electricity development model supports one of the underlying themes of this research: that a specific democratic ideal underlies this resistance. This suggests a role for the explicit dialogue about energy democracy, which has been sideswiped by arguments about technological or economic elements. Moreover, it is noteworthy that there is not an “antipodal” view to this outlook about democracy. None of the views of the other stakeholders (whether those remaining at the center, or those in favor of the dominant model) was found to be diametrically opposed to that of the environmental activists. This means that common elements can be found between their perspective and at least some of the democratic principles of all the other stakeholders, even if there are also discrepancies with each of those other views. If common ground can be established, at least in part, with the other stakeholders, then it might be possible to enhance the opportunities for dialogue and deliberation on the issue of electricity governance.

Democracy views

An examination of all the stakeholder outlooks about democracy (questions 4 and 5) reveals that they all seem to include at least universal agreement about some sort of participation, whether through engagement or through citizen oversight. This suggests that the sector is leaning towards at least a moderate increase participation within environmental governance, in line with the governance “metadiscourse” described in Chapter 2 as democratic pragmatism (Dryzek, 2005, p. 116). It also suggests that there are differences regarding how this citizen participation is to be accomplished. However,

signs of openness to include greater participation are often met with skepticism by radical social environmental groups if not accompanied by a commitment to transcend mere formality and incorporate real improvements in environmental justice and local engagement.

However, it is also important to point out that an often cited barrier to institutional transformation is the argument that contentious movements oppose hydroelectricity but neglect to address increased fossil fuel generation. While social movements often dismiss this argument as a "smoke screen" to discredit them, it is important for them to recognize that playing an effective role as stakeholders in reforming the governance of the electric sector will require them to address the overall reality of the sector and formulate solutions for all the sector's challenges. Failing to do this, in a setting where the country is headed for an energy supply crisis, poses the risk to a major backlash against public participation in energy issues.

Interestingly, the *regulated bisectoralism and participation* outlook was shared by three participants, but one of its key tenets: a clear framework for public/private participation found no echo with the rest of the participants, at least as a conception of a key democratic principle. This seems to be a strong area of contention in relation to this theme, and it is noteworthy that not even all private generators adopted this outlook. Other generators (private and cooperative) adopt outlooks of democracy that more directly address governance issues, like transparency of regulations and overcoming biases in public opposition to projects. This is not to say that these other generators do

not support private initiative, but rather that their view of “good democracy” is not primarily determined by openness to the private sector for its own sake, but rather by unbiased regulation and the “respect of consensus” agreements reached with multiple sectors.

Sustainability views

Turning now to the issues of sustainability (questions 1 and 2), there are three salient elements that distinguish the outlooks. The first of these elements is the divergence of views about the soundness of the existing energy model. In this sense, the *structural transformer* and *mediated development* outlooks (positive factor 1 and negative factor 2) emphasize statements A and C in Question 1, which seem point to systemic inadequacies of the current model that make it destructive and unjust. The remaining outlooks tend to focus on the role of pressures on the model, particularly in terms of growing consumption, social movement opposition, or the general notion of “non-technical limitations” while refraining from an assertion that model’s soundness is problematic.

The second distinction concerns the spatial scale of problems that are emphasized. On this subject, the *macro-economic value* outlook (positive factor 3) takes up one of the ends of the spectrum, by emphasizing global climate and macroeconomic impacts of increased fossil fuel dependency. On the opposite end are the *watershed technocracy* (negative factor 3), and *mediated development* (negative factor 2) outlooks. The former emphasizes the impacts of hydroelectric projects, especially multiple ones in a single

watershed. The latter addressed both the impact on local community access to resources and the negative impacts of hydroelectric projects on National Parks and other fragile ecosystems. The remaining outlooks are somewhere along this range, some stressing the impact on local community access to resources (*structural transformer*), others concerned about greater economic dependency (*rationalistic planner),* and finally some attempting to weigh in both the cumulative effects on single watershed and global effects on climate change (*planned mitigation*).

A final distinguishing factor is the scope of planning and level of stakeholder inclusion that is envisioned corrective actions. Consultation receives a significant priority from half the outlooks (*structural transformer, rationalistic planner,* and *watershed technocracy*). Watershed Management Plans are favored by four out of the six outlooks (most highly in the case of *planned mitigation* and *watershed technocracy*, and more moderately by *structural transformers* and *mediated development*). Furthermore, two outlooks believe that planning should also be implemented regarding the growth of the energy system, in order to optimize efficiencies in both the consumption and supply (*macro-economic value* and *planned mitigation*). Two outcomes believe that regulation of energy purchases and sales should be implemented in accordance with the country's needs - and possibly to include private sector participation (*macro-economic planning and mediated development*). The second of these (*mediated development*) also supports policies that will maximize the exploitation of hydroelectric resources and the export of energy development services.

Finally, four of the outlooks support different planning formulas that specifically address at a national level the definition of areas that will be untouched by electric generation. Two outlooks (*structural transformer* and *rationalistic planner*) support specific plans at the national scale that "overcome *'energy developmentalism'* and commit to preserve certain river basins". Another outlook supports the previous measure, but combined with a specific policy of not developing energy infrastructure in National Parks and Biological Reserves (*macro-economic value)*. Finally, one of the outlooks views defines the needed mechanism as instituting clear policies by the Environment Ministry to strengthen the legal framework and establish which areas of the country shall remain unaltered (*watershed technocracy*).

Socio-environmental values

The final issue analyzed, socio-environmental values (question 6), once again reflects the plurality of the Costa Rican environmental movement. Out of the five outlooks identified, some of the statements reflected concerns shared by multiple outlooks. The ones showing greatest agreement where the ones involving "balance between use and conservation of natural resources" and "efficiency, quality and proper environmental management as elements of good entrepreneurial management". Each of them had strong loadings for three outlooks, the former in the *entrepreneurial balance, safeguarding culture through balance & efficiency,* and *balanced and cautionary use* outlooks; and the latter by the *entrepreneurial balance*, *care & efficiency through entrepreneurship,* and *maximum managed growth* outlooks.

A milder degree of support was received by other statements reflecting values; which received high loadings in two outlooks. This is the case of statements calling for “efficiency and lower consumption”, “maximum promotion of natural resource use when it can be accomplished with clean technologies”, “using local resources along with technical and human capacities to produce national added value”, and “prevalence of the precautionary principle in socially and environmentally sensitive areas”.

Out of the remaining statements, those that involved respect for local constraints and cultural heritage received support from one outlook, and the one specifically confronting privatization did not receive a significantly strong loading from any of the outlooks.

It is also noteworthy that the outlooks identified align considerably well with the mainstream classification of environmental discourses. The outlook that was matched to the greatest number of participants, *balanced and cautionary use* matches considerably the “middle of the road” discourse of sustainable development, where balance between the needs of conservation and growth is fundamental (Dryzek, 2005, p. 157). Two other outlooks that were matched to multiple participants were *care and efficiency through entrepreneurship*, and *entrepreneurial balance*; both of these have a correspondence to approaches to “weak ecological modernization” (Dryzek, p. 173), they both support entrepreneurship as key for environmental protection, the former also emphasizes efficiency (rather than growth) and the latter stresses productivity balanced with conservation.

Another outlook, *safeguarding culture through balance and efficiency* corresponds to the culturally sensitive view of sustainability. The *constraint under local-cultural rights* outlook aligns with green rationality or *green politics*, by taking a more radical approach to establishing boundaries to unlimited growth by respecting local bio-regional and cultural constraints and sensitive ecosystems. (Dryzek, 2005, p. 218). Finally the remaining outlook, *maximum managed growth* corresponds closely with the discourse of “economic rationalism” (Dryzek, p. 137) since it emphasizes maximizing production, whereas environmental protection is seen to rely on entrepreneurial initiative.

CHAPTER VII

DELIBERATIVE ASSETS AND DELIBERATIVE NEEDS, A GAP ANALYSIS

The objective of the present Chapter is to integrate the preceding analyses of the historical account of Costa Rica's electricity governance (Chapter 5) and of the multiple perspectives of diverse stakeholders (Chapter 6) in order to construct a multi-dimensional vision of the needs and assets for deliberation. The identified needs are elements that must be addressed in order to make deliberation more viable. The identified assets are opportunities that can lay a foundation for a more deliberative engagement in electricity governance.

The normative analysis undertaken in Chapter 4 described the contributions that deliberative practice, in theory, can offer to environmental governance. These contributions were classified according to four dimensions: experiential, cultural, behavioral and systemic, using the Quadrant Analysis methodology developed by Ken Wilber (2001a, 2001b, 2001c), as was summarized in Figure 4.2. At the experiential level, deliberative engagement fosters greater empathy and deeper introspection. On the cultural plane, it promotes the development of active trust, and a greater sense of common ground that can help construct a shared identity. At the systemic level, it can help address the needs of integrating multiple spatial levels and also, though deliberative methodologies, provides more inclusive models of institutional design.

Finally, at the behavioral level, deliberative engagement involves transformed practices of participation, listening, self-expression and of discussion about the process of communication itself.

In relation to the identification of deliberative assets and needs, the diverse historical accounts of the electric sector's development, reviewed in Chapter 5, have shown the prevalence of civil society involvement in electricity policy issues throughout its 125 years history. This analysis of five successive stages of governance has also shown that while infrastructure development consolidated over most of this period, the governance structures are facing increasing tensions. Some of these tensions are political or fiscal in nature, whereas others are derived from the opposition by social movements to the dominant electricity development model.

Social movements have shown the capacity to effectively oppose electricity infrastructure or policy projects through direct or legal action. However, they are loosely networked and at times have contradicting interests (for example, ICE's labor union is an important stakeholder in the movement opposing the privatization of ICE, but it has strong disagreements with environmentalists regarding the latter's opposition to ICE's hydroelectric projects). Two additional factors were identified that make the situation more complex: the government's failure to identify that institutional legitimation is an

element of the problem, and the lack of engagement of contentious social movements in the formulation of alternatives.

The aforementioned historical analysis based on bibliographical sources was complemented with an analysis of multiple worldviews carried out using Q Methodology, presented in Chapter 6. Through this analysis three key issues of electricity governance were selected: sustainability challenges, democratic principles and socio-environmental values. For each of these issues, a set of distinct outlooks was identified among a sample of ten electricity governance stakeholders, as shown in Table 6.2. This generated a list of six distinct outlooks on the issue of sustainability, five outlooks on the issue of democratic principles, and six outlooks pertaining to socio-environmental values. Without claiming to be an exhaustive list of all possible discourses, these seventeen outlooks underscore the diversity of positions that people hold on issues of energy sustainability, democracy, and socio-environmental values. It reveals that there are no simple two-sided issues, and that there is some commonality of interests between some of the people standing on opposing sides of an issue.

In a turbulent governance arena where issues have been heavily polarized and ideologically charged, this study may provide some of these stakeholders with the opportunity to pause and reflect on some of the beliefs and arguments that are most prevalent in the debate about electricity dialogue. Working with these ideas, placing them alongside one another in order to sort their significance in relation his or her own

perspective, will hopefully have provided a vital opportunity to reflect on them in a new light.

The findings that can be drawn from this combined approach to studying history and perspective can be associated quite readily to three of the four dimensions of Quadrant Analysis: the cultural, behavioral and systemic dimensions. The remaining aspect of the model, the experiential dimension, connects more directly with the introspective action that is prompted by the practice of sorting the Q Statements themselves. The methodology, as performed in this study, provides only slight glimpses into this dimension, picked up from the comments made by a few of the participants upon discovering something new about their own outlook. In the future it might be worthwhile to consider how to elicit more feedback from the participants about their own introspection while performing the Q Sorts.

Deliberative Assets & Needs

The Cultural Dimension

On the cultural sphere, a paramount need is the rebuilding of mutual trust and respect between stakeholders having different perspectives. For this to occur, it is essential that electricity sector institutional leaders and policy makers recognize the current crisis of credibility and legitimacy facing these institutions. These policy makers and leaders also need to recognize that the governance elements of this crisis demand an urgent response, no less proactive or diligent than the responses they advocate for other pressures facing the sector, such as oil dependency and demand growth.

It is also necessary for all stakeholders to explore and reframe their own value-driven discourses. Social movements, in particular, must explore how their discourse can advance from "resistance identities" to "project identities", to use the terminology developed by sociologist Manuel Castells[47]. At this stage, their collective identity as policy stakeholders is almost exclusively sustained by what they oppose: new hydroelectric developments and exploration for geothermal, hydroelectric and other resources in National Parks. They remain uninvolved in promoting efficiency and reduced electricity consumption, and continue to provide almost no opposition to increased fossil-fuel generation. Thus, through a combination of action and omission, this has generated a "path of least resistance" whereby the country has grown in fossil-fuel based electricity generation without any significant popular opposition being directed at this trend (although electricity rate hikes driven by fossil-fuel consumption are likely to eventually make consumers more concerned and spark protests about fossil-fuel dependency).

All stakeholders need to take stock of those values that are shared by the most of the collective on both sides of the issues: the Q-methodology study presented in Chapter 6 has shown that such shared values include: participation; balance between resource use and their conservation; and the importance of good environmental management

[47] Castells develops the concept of three forms and origins of identity construction: "legitimizing identities", which are introduced by dominant institutions to extend and rationalize their domination; "resistance identities", generated by groups that are marginalized by the logic of domination, in order to survive and oppose it; and finally "project identities", which arise when stakeholders can build a new identity based on their own cultural assets in order to transform the social structure. (2001, p. 30).

and oversight. However, it is the values - not the slogans - that need to be adopted. Espoused values of balance and environmental stewardship need to be implemented with monitoring and accountability standards that build trust, not undermine it.

Nonetheless, the awareness that the policy environment is more than just a two-sided field can be a valuable asset for building an ecological democracy that is deliberative, and not merely aggregative. The symbols and clichés of the political discourse (like ICE's heroism and the solidarity of the State) offer an opportunity for social learning. This opportunity is enriched by further study of the dynamics of electricity governance, such as the work of historian Patricia Alvarenga that uncovered a recent episodes of Costa Rican history previously blocked out from the social memory, perhaps because it did not conform to the clichés about undisputed popular support to ICE's monopolistic role throughout history[48]. Addressed through a democratic dialogue, it is possible to engage multiple stakeholders in exploring the mainstream social discourse and looking beyond it to face those elements of complexity that are being overlooked.

However, despite involving a greater depth in communication by addressing issues normally not brought to the table, this is not seen as an "elitist" proposal, outside the reach of most citizens already concerned or engaged on these issues. On the contrary, many proponents of public participation consider the involvement of all levels of the citizenry in understanding complex technical, communicative and social issues as

[48] Patricia Alvarenga's research has unearthed the case of the two-year electricity consumers strike between 1962 and 1964 that resulted in ICE being driven out of Cartago, which was all but lost to the social memory of the country, and was discussed in Chapter 5 of this thesis. (Alvarenga, 2005, pp. 167-213).

essential for managing intractable public policy disputes. In this sense, Bagby & Kusel (2002) promote "civic science partnerships" between forestry experts and underserved communities, and Karl, Susskind & Wallace (2007) advocate "joint fact finding" that integrates local knowledge in science based public disputes. Furthermore, ethnographic research carried out by Poncelet (2004), in North American and European multiparty environmental partnerships, suggests that critical self-reflection and transformation of one's own values and identities can occur for all parties involved in environmental dialogue through "double-loop learning"[49].

Furthermore, my own work with environmental conflict facilitation (Fundacion para la Paz y la Democracia, 2008) suggests that double-loop learning regarding contentious environmental issues can occur for diverse stakeholders in the Costa Rican rural context. In particular, this learning is more likely to occur if the approach to addressing their concerns takes into account their apprehensions about institutional policies, their perception of past historical difficulties, and the existing power imbalances. Limitations that may be encountered, due to the stakeholders' capacity for verbal abstraction or educational background, can be addressed through a facilitation and design of the intervention that provides spaces for assimilating the issues in ways that are reflective, experiential and framed in easily comprehensible terms.

---

[49] Double loop learning is relevant because it reflects the capacity of stakeholders for insight and transformation of one's views. The concept of "double-loop learning"was developed by Chris Argyris to refer to learning that transcends "single-loop learning" (learning that allows the correction of past actions in light of new information, in order to find new ways of achieving set objectives). Double-loop learning involves critical self-reflection and in the process of finding solutions, underlying assumptions and values can be transformed (cited in Poncelet, 2004, p. 11).

However, this level of cultural transformation can only be achieved in unison with behavioral transformation that enhances the quality of deliberative action, as is discussed in the following subsection.

The Behavioral Dimension

In terms of the Integral Theory Model, the Behavioral quadrant relates to aspects of "individual exteriority", in other words, to elements that are observable (and possible measurable) at the level of the individual. Bächtiger and Steenbergen (2004) have established four indicators in order to measure the quality of deliberation in a dialogue or negotiation, these are: "participation, justification, respect and constructive politics" (p. 32). In Chapter 4, a number of key behaviors related with this quality of practice were identified as elements of "transformed communicative action" and presented in Figure 4.2. They include transformed modes of: participating, speaking, and listening. It is clear that participating in dialogue, articulating one's views respectfully, and listening to what has merit from the perspectives of others who think differently, are necessary behaviors if one is to achieve a mutual understanding. However, it is important to bear in mind that individuals can only have the capacity for meaningful participation in dialogue if the opportunities for such dialogue exist beyond the veneer of participation as a mere formality.

Furthermore, the choice to participate in dialogue will also be influenced by how the different parties involved in the contention (as a group, and as individuals) perceive that dialogue can be a beneficial option to them, relative to what can be accomplished

through other alternatives. Given the existing lack of trust in both institutional policies and existing mechanisms for participation, it is understandable that both radical and conservative stakeholders may favor other courses of action different from dialogue and deliberation. Hence the appeal of deliberation would be strongly tied to the recognition of its potential for generating more durable win/win solutions. This recognition is more likely to come when stakeholders are able to frame their problems through a long-term perspective rather than seeking an immediate resolution[50].

With regard to the opportunities for effective and equitable participation, the expression of agency by social movements through their organization, mobilization and resistance are important behavioral elements that lay the foundations for institutional accountability and the construction of active trust. However, it is important to evolve this resistance into the construction of proposed solutions. This requires learning from and improving on past experiences in collaboration. Past attempts at collaborative engagement (described in the systemic dimension below) provide examples of behaviors for seeking collaborative solutions and promoting inclusion of affected stakeholders that can inform the design of future deliberative exercises.

---

[50] Furthermore, research done by Rosenberg (2006) in political psychology suggests that an individual's approach (or discourse) with regard to political interaction greatly influences their likelihood to adopt a a deliberative behaviour. Hence, individuals who espouse a collaborative discourse are more likely to adopt a deliberative behavior than those who espouse a cooperative or conventional discourse (p. 21). On the other hand, Fung (2005) argues that it is consistent with the deliberative ideal, in cases where the necessary conditions of reciprocity and equality do not exist, for "deliberative activists" to use other measures (such as direct action, persuasion, public shaming) in order to pressure on more powerful actors into engaging in public deliberation (p. 408).

One additional element is needed in order to generate what Bächtinger and Steenbergen refer to as “constructive politics” (2004, p. 32). Stakeholders will need to develop greater capacity to “communicate about the process of communication itself”, in order to establish ground rules for communication and review their own dialogue to ensure it remains headed in a direction that is constructive. This type of communication, where the subject of communication addresses the process of communication itself, is called “metacommunication” (Watzlawick, Beavin Bavelas & Jackson, 1997, p. 40). Research techniques that are deliberative in nature, such as the application of Q-Methodology used in this study, engage participants in exploring different ways of framing a contentious issue. Because these new frames are not intended to refute the position of any stakeholder, each party is free to consider them without being defensive about their own outlooks.

The Systemic Dimension

One of the greatest difficulties for deliberation at the systemic level is the disparity in terms of the spatial scope at which problems are being framed and understood by the different stakeholders. The incommensurability between the electricity governance frames that emphasize the global and macroeconomic implications (global warming, foreign oil dependency), and those that concentrate on the local implications (direct and synergic impacts on ecosystems, local access to resources, cultural and indigenous autonomy) is one of the most significant barriers to mutual understanding between relevant stakeholders.

An approach that addresses the needs of the electric sector integrally, with balanced consideration and responsiveness to local, national and global needs is badly needed. This need is increasingly being recognized as one of the most significant challenges in the ongoing discussions about public participation in environmental decision making (National Research Council, 2008, p. 164). It is a particular salient concern when it comes to energy policy, due to its strong linkages to both managing localized environmental impacts and to mitigating global climate change. While outlining a strategy or selecting a specific deliberative practice that would meet this objective is beyond the scope of this thesis, it may be relevant to state some general notions.

A first concern would be to ensure that each interested party recognizes explicitly how every outlook attributes different relevance to global, national and local concerns. This may seem a trivial point, but on an issue as polarized as electricity development (as this thesis's historical and discourse analyses have suggested) stakeholders often believe that their outlook is "the only correct one" and they tend to dismiss the disagreement of others as deriving from dubious intentions or flawed reasoning, not accounting for the influence of focusing on a different spatial dimension.

For the above reason, processes for collaborating on this issue must foster a general acknowledgement of the value of including diverse spatial dimensions and multiple stakeholders. This value is associated to two important concerns: enhancing the quality of decision making, and generating greater legitimacy for both the process and its outcomes.

The international literature highlights the efforts of some agencies, like the United States Bureau of Land Management (BLM), to address this limitation by integrating several participatory processes to incorporate different spatial scales[51]. However, such a multi-level strategy entails a substantial allocation of resources that is generally outside the reach of developing country agencies for a plethora of issues that require inclusive participation. Hence, while it is not within the scope of this paper to design a strategy for social dialogue around the electricity development issue, its findings do suggest that introducing explicit communication about the need to balance global, national and local needs is a fundamental aspect of such a dialogue. Furthermore, addressing the legitimacy of the dialogue process and the allocation of financial resources are also important considerations.

This broadening of the spatial framing needs to be complemented with a stronger approach towards equitable distribution of the benefits of electricity development. A democratic shift is also needed in order to provide greater access to decision-making to those affected by electricity infrastructure development. Without these two measures, it is unlikely that the institutional framework of electricity generation and distribution will regain the social trust that has progressively eroded over the past decade. This will

[51] The BLM has used in its Western Oregon Plan Revision Process a multi-level participation strategy that included "dozens of local open houses combined with an Internet site for electronic submission of comments, periodic newsletters, and regular meetings with 'formal cooperators,' including state and federal agencies and representatives of many of the affected western Oregon counties" (National Research Council, 2008, p. 164)

require the undertaking of further rigorous economic, environmental and human security research that generates a better understanding of the economic, social and environmental trade-offs facing the country in responding to its resource conservation and human development needs.

Throughout the development of this study, some of these themes that require further research were identified. Among the most relevant information gaps identified are: the omission of a number of key factors in the determination of the true costs of generation by ICE[52], and therefore a persistent uncertainty in the cost comparison with privately generated hydroelectricity. The absence at the environmental regulatory level of a means for accounting for the synergic impacts of multiple hydroelectric projects in a single river basin is also a substantial concern, that still appears no to have been systematically addressed.

In terms of deliberative assets, it is important to recognize the established precedents of consensus building and deliberation that have been implemented in several areas of environmental governance in the country. These include the drafting of a consensus bill for the National Water Law in 2002-2004 (Aguilar, Alvarado, Astorga, Avendaño, Blanco, Mora-Portuguez, et. al., 2004, p. 11), though it has still not been passed by

---

[52] According to the Congressional Testimony of Adolfo Lobo, ARESEP's Energy Services Director, ICE did not have a definitive estimate of its own production costs in 1990, when the Private Electricity Generation Law came into force. He further argued that comparisons between ICE's energy production costs and the costs of purchasing power from private generators have been skewed by looking at ICE's current average generation costs, not at the costs that ICE would incur if it were to expand its installed capacity (Asamblea Legislativa, 2005, pp. 21, 51). Furthermore, Castro (2008) mentions factors such as the value of ICE's use of the State's bank guarantees, the constraints to economies of scale by restricting private generation projects under 20 MW, and the cost of bureaucratic procedures, that have not been fully accounted for (p. 7).

Congress; the "*Concertación"* (consensus-building) initiatives of the Rodriguez Administration in 1998-1999 (Sojo, 2004, p. 26); and the past work of Mixed Legislative Commissions that included civil society representatives (Rivera, Rojas, Zeledon & Guzman, 2006, p. 100).

However, most of the aforementioned experiences have not produced a successful policymaking outcome, and therefore are generally regarded by policy-makers as cumbersome and ineffective attempts to democratize policy and decision-making. There are also criticisms on the part of some social movement stakeholders that these efforts are not reliable and often biased in favor of the status quo, a notion that has also been brought up in the international literature (see, for example, Bäckstrand and Lövbrand, 2006). Unfortunately, this increases the institutional resistance to more direct democratic engagement by citizens in decision-making. Therefore, a need exists for more rigorous and careful design of deliberative instruments for institutional engagement.

The Experiential Dimension

It is in terms of assessing the experiential aspect of the country's deliberative assets and needs that this study encounters its greatest research limitations. Despite the significant importance given to subjectivity in Q methodology, the framing of the Q-Deck statements focuses on the social discourse (or more correctly, the concourse) about electricity sector, democracy and sustainability, but does not address the respondent's

subjective experiences with social learning, identity and the evaluation of personal values.

Hence, the possibility of gauging aspects of the stakeholders' subjective experience were limited to those times when the Q-sort participants voluntarily commented on their own introspection prompted by the activity, or when the historical literature specifically addressed the emotional state of the different stakeholders with respect to a particular situation.

Drawing on the two aforementioned sources for subjective valuation, there are some distinct specific experiential elements that can be mentioned as part of the context for deliberation. The first of these is the strong influence that feelings and images of both empowerment (achieving a unified movement, overturning a decision by the ruling elite) and disempowerment (being disenfranchised, having no legal recourse, being shunned by neighbors for opposing progress) have on the mindset of social movement activists who oppose the dominant electricity development model. A characteristic example of a symbolic situation of disempowerment is the case of the forceful land expropriations that the government originally sought to implement in 1998 in order to allow the construction of the private hydroelectric projects in the county of Perez Zeledon, given the refusal by a number of land owners to sell their land (P. Ureña, 2002, p. 151). An example of a sense of empowerment would be the recollections by social movement activists of the Combo protests and of how they successfully managed to pressure the government through organizing and direct action to reverse course on an enactment of the Law to reform ICE. (Carazo, 2002; Acevedo, 2002).

The second experiential factor is the level of frustration conveyed by policy-makers towards previous attempts to promote public participation in policy formulation. Policy makers display apprehension and frustration at the prospect of continuing to transfer decision-making to more direct-democracy instruments, because they perceive them to be slower, and are therefore likely to render the country "even more ungovernable" (Sojo, 2004, p. 45; Alpizar, 2008).

These two elements suggest a strong urge by the different stakeholders to retain a position of control in the policy-making arena, particularly in dealings with those having opposing views. This stance can be understood, at least partly, as a reactive response in order to minimize the negative feelings of disempowerment and frustration associated with the recollection of past dealings with those regarded as adversaries. Therefore, a stronger capacity for empathy and for overcoming the predisposition towards those having opposing views is a vital need if one hopes to strengthen the country's deliberative capabilities.

One way in which this study has sought to contribute to the construction of this process is by employing Q-methodology as an action-research tool. The dynamics of Q-sorting entail strong deliberative elements (Dryzek, 2004, p. 11). They allow the participant to experience ways of framing issues with a level of detachment from the adversarial charge with which such statements are usually approached. The methodology also encourages the participant to overcome polarization between "one? right" and "one

wrong" proposition, instead inviting him or her to enter a dialogue with different discursive frames, constructing meaning based on the way propositions are placed in relation to one another. Thus, the research design has provided ample opportunity for introspection by the study's participants. Whereas the research design did not provide a means to systematically document the outcomes of this introspection, future applications of this methodology can incorporate this element and shed light on the potential impact of deliberative action-research.

CHAPTER VIII

CONCLUSIONS

The present study has looked at one stream of democratic thought, deliberative democracy, and sought to understand how it can contribute to strengthen environmental governance, in light of the current conditions of the Costa Rican electric sector. It has followed three lines of inquiry to explore this issue: a review of the theoretical claims of deliberation theory, a historical overview of the electricity sector's governance structures, and an analysis of the pluralism reflected in the mainstream discourses and the outlooks of key stakeholders about the electric sector's development and sustainability. In Chapter 7, this review was integrated into a four quadrant analysis to construct a view of the gaps between the country's assets and its needs in terms of the application of deliberation to electricity governance.

The findings of this thesis substantiate the following conclusions regarding the pertinence and promise of deliberative democracy for energy governance in Costa Rica, focusing particularly on the electric sector:

- The analysis of the outlooks of multiple stakeholders reveals a level of generalized support for some form of public participation and consultation. This is reflected in

the historical recurrence of citizens' efforts to engage in electricity sector governance. However, among electricity institutions and companies, resistance and apprehension are still prevailing attitudes towards any effective participation (such that would allow communities and environmental groups a role in electricity development decision-making). This resistance is often grounded in concerns about participatory processes being cumbersome and ineffective, and about the public being misinformed and easily manipulated. On the other hand, social movements are often suspicious of government-initiated participation mechanisms because they perceive them as having a high risk of cooptation.

- The deliberative democracy model seeks to directly address these concerns by balancing the contested needs of rationality and inclusion. The rationality aspect of deliberation is concerned with the promotion of "mutual enlightened understanding" (Farrelly, 2004). Hence, it engages parties in understanding the perspective of the other side, question their own assumptions, and explore the merit of their own and contradicting views. This prompts parties to be more reflective and better informed, rather than misinformed and susceptible to manipulation. The inclusive aspect implies that the views and concerns of all persons affected by a decision or policy must be incorporated in undertaking said decision or policy. Implementing the model, however, entails a number of obstacles which will be discussed further ahead in these conclusions.

- For over a decade, the issue of the development of the electricity sector has become increasingly polarized leading to a deadlock in the development of electricity infrastructure and in a fundamental “disconnect” about the direction that the electricity sector’s development should follow. This polarization has strengthened the general perception of the issue as a two-sided debate, whereby the two rival sides have diametrically opposed views and concerns, while within each side these are identical. Unlike “conventional” democracy, deliberation does not seek to resolves conflicts through an aggregation of preferences; therefore, it pays greater care to the specific concerns of the different stakeholders and tries to build new solutions. Instead of contrasting disputing claims against each other, deliberation tries to construct new complementarities and meanings out of the roots of the different concerns. As an example, this thesis was able to identify within a small sample of key stakeholders seventeen different outlooks for a total of three issues. Deliberative methods offer an opportunity to incorporate a broader framing of the different parties’ concerns and thus overcome the impasses generated by the polarization of the issues.

- Deliberative experiences also have high value as “generative politics”, policy-making interactions for which the process is seen as important as (or perhaps more so than) the outcome, due to its potential for rebuilding trust and understanding between the parties (Giddens, 2001). Precisely because there are diverse views about the requirements for good governance of the electricity sector, deliberative methodologies can guide a richer discussion focused on the

underlying values and concerns behind these views, rather than protracting a deadlocked debate that has centered on discrediting the views of the other side and contending that there is one technically and socially correct answer. This in turn, can build greater trust and understanding as well as enhance the organizational and social capital of the participants in the dialogue.

- Internationally, some deliberative instruments have experienced significant success in promoting broader participation and greater legitimacy in energy policy decision-making. Among such examples, one of the most visible has been deliberative polling, which has been applied to participative electricity decision-making in several utilities in the United States and Europe (Guild, n.d.; Lehr et al., 2003). Within Costa Rica, there have been also several efforts for multi-stakeholder dialogue and collaboration, some of which have faced strong criticism, while others, despite achieving consensus recommendations, have faced strong implementation barriers. Although the design of a specific deliberation intervention fell beyond the scope of this thesis, the findings of this thesis do suggest that a more detailed study of deliberative experiences both abroad and locally would be a valuable contribution to the design of a strategy for a multi-stakeholder social dialogue about the country's electricity development model.

- Deliberative methodologies have a stronger potential for encouraging double loop learning and self-reflection than conventional democratic exercises (including debates and electoral activities like referendums and plebiscites). This is the type

of learning that enables stakeholders to question their own assumptions and develop new identities that can transcend the polarized framing of these issues. As part of the assumptions that hinder constructive resolution, the historical account has revealed that "collective myths" often reinforce the stance of different stakeholders in this issue. One clear example has been the symbolic and "heroic" image of ICE, as an institution that was always defended by the people. This is clearly not completely true in the present, and even less so in historical perspective[53].

- By moving away from the two-sided framing, not only can new themes be identified, but there is also greater opportunity to address them in ways that are less threatening to the stance of the different stakeholders. For example, the key themes identified in the Q-Method study were:
  - The need for greater information (a) about the cost calculations of generating electricity under different arrangements, and (b) about the methods for assessing the synergic impacts of constructing several hydroelectric projects in the same river or watershed.

[53] As was discussed in Chapter 4, local movements do generally support ICE's status as a public institution, by opposing its privatization; however, when it comes to the construction of its hydroelectric projects, these have faced as significant an opposition from local and environmental groups as have private generators. Furthermore, in the 1950's and 1960's several social movements rose up to oppose the national monopoly of electricity services, advocating instead for the creation of local enterprises that would maintain closer bonds with the community. The most successful of these movements, sustained a strike against ICE from 1961 to 1963 in Cartago, which concluded with ICE's pull-out and the creation of a new local electricity services board, JASEC. Remarkably, this event however has been nearly erased from the memory of the community, it is not mentioned anywhere in JASEC's webpage, and there is hardly any reference to it in any of the official accounts of the electric sector's history. It has been reconstructed by the thorough research of historian Patricia Alvarenga (2005).

- The appropriate planning methodologies balancing local, national and global needs related to electricity production. Should this be accomplished through (a) bioregionalism (transfer decision-making rights to each watershed), (b) river classification (establish some rivers as “sanctuaries” and others as “deteriorated” and allow development only in the latter, but with very scant restrictions), (c) land use regimes (make protected areas and indigenous territories off limits, but relax restrictions for “clean technologies” outside them), (d) individual environmental assessment (rather than having general policies, analyze every project on a case by case basis), or what other possible planning methods are there?
- The establishment of principles and regulations for public participation and involvement in decision-making, as well as the procedures for balancing the costs and benefits of projects among the local communities, the electricity users, project developers, and the global environment.

Forums for dialogue and deliberation could be undertaken about these issues, with careful framing of the discussion about “how appropriate solutions could be implemented”, not about “what is the universally correct solution”. This would create an opportunity for building trust and better understanding of the shared and opposing values among the diverse stakeholders. In this way, the discussion could be steered in more constructive directions and away from the current polarization and impasse around two broad issues: (a) the environmental friendliness or destructiveness of

hydroelectric projects, and (b) the potential contribution vs. the “intrinsic exploitive character” of private interests in electricity generation.

However, for the discussion to evolve in these constructive directions, it will be necessary to address a substantial number of complexities and obstacles that have affected the progression of the national discussion about these issues. This study has sought to identify the most significant instances of these complexities, and the findings are outlined in this section.

- The primary obstacle that was identified for the undertaking of deliberative processes to strengthen the governance of the electric sector is the failure of the state institutions and leaders to recognize that the loss of institutional legitimation is vital element of the problem. The government has both oversimplified and underestimated the roots of public opposition to electricity infrastructure development. As long as the government fails to recognize the need to address the root concerns of social movement opposition and to regain the credibility of the sector’s institutions, it is highly unlikely that it will pursue a serious effort to rebuild the public trust and improve its own understanding of the concerns of communities and environmentalists.

- Analogous to this first concern, on the side of the community and environmental groups that oppose hydroelectric projects and private generation, there has been a lack of engagement in formulating sound

alternatives to the infrastructure projects that they are opposing. This makes the prospect for collaborative engagement difficult because the movement is loosely networked primarily in terms of what they oppose. The lack of a proactive agenda makes their concerns difficult to frame in a way that isn't perceived as merely discrediting the proposals of others.

- There is a huge disparity between the strong consolidation of the technological infrastructure of the electric sector, and the development of the governance structures for the sector. In the case of ICE, analysts have mentioned several sources of interference in the management of ICE, including bipartisan politics, trade union politics, and state macroeconomic policies. More specifically in terms of the participation and inclusion aspects of governance, all the energy sector agencies show a noticeable institutional weakness on this regard.

Although some institutions have undertaken outreach and extension initiatives as part of their environmental or watershed management programs, these are primarily framed as initiatives to promote conservation in order to ensure the secure supply of water. Aspects of participation more in line with "ecological democracy", "environmental justice", or equitable distribution along the local/national levels of the costs and benefits of watershed resources are not being addressed. This suggests a lack of institutional spaces from which deliberative initiatives could be pursued.

- Finally, there is a cultural barrier with relation to how a transformative process like deliberation is likely to be received with regard to such a deadlocked and pressing issue for the country. The ideals of deliberation entail a communicative and cognitive leap on the part of the participants. Participants are expected to listen to the concerns of others with opposing views, and to explore where there may be some merit in those views. They are also asked to reflect on, and question their own assumptions. Skepticism about the potential for success and the practical use of such transformational interactions is commonplace and not surprising. Furthermore, with an issue so polarized and urgent, the expectations that an intervention ought to bring about a quick agreement, rather than a gradual building of trust, are likely to become greater.

In spite of all the aforementioned limitations, a deliberative process to build a national agreement on the future of the electric sector development would offer a significant contribution to the country at this time. In many ways, it is a test for the country in overcoming the ghosts of its past success as a welfare state bureaucracy managed from an expert frame, and to recognize when new circumstances require more integral solutions. It reflects key aspects of how the face of democracy is changing in the country, and the need for new social agreements to consider participation, distribution of costs and benefits, and moving from resistance to shared responsibility. It embodies the country's current turning point, whether it will be able to consciously and collectively move from government to governance. My hope in undertaking this thesis has been to

suggest some ways in which the country can begin to advance along this path towards governance and shared responsibility.

WORKS CITED

CHAPTER I

Aguilar, A., Alvarado, X., Astorga, Y., Avendaño, S., Blanco, C., Mora-Portuguez, J., et. al. (2004). *Hacia una nueva ley del agua: Memoria de un proceso de construcción participativa [Towards a new water law: proceedings of a participatory construction process]*. San José: Grupo Técnico del Agua.

Avalos A. (2007, May 5). ICE suspende cortes de electricidad en todo el país [ICE suspends power cuts throughout the country]. *La Nación. (electronic)* Retrieved October 5, 2007 from http://www.nacion.com/ln_ee/2007/mayo/05/pais1085589.html

Farrelly, C. (2004). *An introduction to contemporary political theory.* London: Sage Publications.

Instituto Costarricense de Electricidad. (2006). *Plan de Expansión de la Generación Eléctrica 2006-2025 [Electric Generation Expansion Plan 2006-2025].* San Jose: Author. Retrieved January 23, 2006 from http://www.grupoice.com/esp/ele/planinf/Plan_Expansion_de_la_Generacion_2005.pdf

Ministerio de Planificación Nacional y Política Económica. (2007). *Plan Nacional de Desarrollo "Jorge Manuel Dengo Obregón": 2006-2010.* San Jose: Author. Retrieved January 24, 2007 from http://www.mideplan.go.cr/cedop/2007/PND-2006-2010.pdf

Programa Estado de la Nación (2005). *Duodecimo informe Estado de la Nacion en Desarrollo Humano Sostenible [Twelfth State of the Nation Report on Sustainable Human Development].* San Jose: Author.

CHAPTER II

Arias-Maldonado, M. (n.d.) *Green politics and Deliberative Democracy.* Berkeley: Berkeley Workshop on Environmental Politics Working Papers. Retrieved December 22, 2006 from http://globetrotter.berkeley.edu/EnvirPol/WP/13-Arias.pdf

Atlee, T. (2002, September). A call to move beyond public opinion to public judgment. Retrieved October 16, 2007, from the The Co-Intelligence Institute Web site: http://www.co-intelligence.org/CIPol_publicjudgment.html

Bell, D., Thompson, N., Deckers, J., Brennan, M. & Gray, T. (2005). *Deliberating the Environment.* Newcastle upon Tyne: University of Newcastle, Center for Rural Economy. Retrieved March, 27, 2007 from http://www.ncl.ac.uk/cre/publish/pdfs/rr05.01b.pdf

Baber, W.F.& Bartlett, R.B. (2005). *Deliberative environmental politics: Democracy and ecological rationality.* Cambridge, MA: The MIT Press.

Bäckstrand, K. & Saward, M. (2004, September). *Democratizing Global Environmental Governance Stakeholder Democracy at the World Summit for Sustainable Development.* Paper for delivery at the annual meeting of the American Political Science Association, Chicago.

Bäckstrand, K. & Lövbrand, E. (2006). Planting trees to mitigate climate change: Contested discourses of ecological modernization, green governmentality and civic environmentalism. *Global Enviromental Politics: 6(1)*, 50-75.

Bagby, K., & Kusel, J. (2002). *Civic science partnerships in forestry: Building capacity for participation among underserved communities*. Taylorsville, California: Pacific West Community Forestry Center. Retrieved October 14, 2007, from http://sierrainstitute.us/PWCFC/publications/Civic_Science.pdf

Beck, U. (1998). From industrial society to the risk society: Questions for survival, social structure, and ecological enlightenment. In J. S. Dryzek & D. Schlosberg (Eds.). *Debating the earth: The environmental politics reader* (pp. 327-346). Oxford: Oxford University Press.

Boucher, G. (2001, June 21). The theory of structuration and the politics of the third way. Retrieved October 14, 2007, from the Blackwood project Web site: http://ethicalpolitics.org/geoff-boucher/2001/politics1.htm

Castells, M. (2001). *La era de la información: Economía, sociedad y cultura. Volumen 2. El poder de la identidad. [The information age: Economy, socity and culture. Volume 2. The power of identity].* Madrid: Alianza Editorial.

Conca, K. (2006). *Governing water: Contentious transnational politics and global institution building.* Cambridge, MA: The MIT Press.

Davidson, D. & Frickel, S. (2004). Understanding environmental governance: a critical review. Organization *and Environment: 17*, 471-492. Retrieved November 11, 2007 from http://oae.sagepub.com/cgi/reprint/17/4/471

Davies, A. C. (2005). A new democracy for professional development and research: Learning to find the future. Unpublished doctoral dissertation, Victoria University. Retrieved October 15, 2007, from http://wallaby.vu.edu.au/adt-VVUT/uploads/approved/adt-VVUT20060928.214153/public/02whole.pdf

Dryzek, J.S. (2000). *Deliberative democracy and beyond: Liberals, critics and contestations.* Oxford: Oxford University Press.

Dryzek, J. (2004). *Handle with care: The deadly hermeneutics of deliberative instrumentation.* Paper presented at the Conference on Empirical Approaches to Deliberative Politics, Florence: European University Institute. Retrieved January 11, 2007 from http://www.iue.it/SPS/People/SwissChairPdfFiles/PaperDryzek.pdf

Dryzek, J. (2005). *The politics of the Earth: Environmental discourses* (2nd. ed.). Oxford: Oxford University Press.

Farrelly, C. (2004). *An introduction to contemporary political theory.* London: Sage Publications.

Finger-Stich, A. (2005). *Social agency in alpine communal forests: Local actors' interactions with communal forests and participation in communal forestry in the French and Swiss Alps.* Unpublished doctoral dissertation, Albert Ludwigs Universitat, Freiburg, Germany. Retrieved October 14, 2007 from http://deposit.ddb.de/cgi-bin/dokserv?idn=979896738&dok_var=d1&dok_ext=pdf&filename=979896738.pdf

Finger-Stich, A., & Finger, M. (2003). *State versus participation: Natural resources management in Europe.* London: International Institute for Environment and Development and Institute of Development Studies. Retrieved October 14, 2007, from http://www.iied.org/pubs/pdf/full/9169IIED.pdf

Foundation for Environmental Security and Sustainability. (2007). *A double-edged sword? Implications of mining for environmental security in the Philippines.* Washington, D.C.: Author & United States Agency for International Development. Retrieved November 10, 2007 from http://www.fess-global.org/files/philippines_esaf_report.pdf

Fung, A. (2005). Deliberation before the revolution: Toward an ethics of deliberative democracy in an unjust world. *Political Theory, 33,* 397-419. Retrieved February 6, 2007 from http://plx.sagepub.com

Giddens, A. (2001). *Mas alla de la izquierda y la derecha: El futuro de las politicas radicales [Beyond left and right: The future of radical politics]* (4th ed.). Madrid: Catedra.

Graham, J., Amos, B. & Plumptre, T. (2003, June). *Governance principles for protected areas in the 21st Century.* Paper prepared for the Fifth World Parks Congress, Durban, South Africa. Retrieved November 14, 2007 from http://www.iucn.org/themes/wcpa/wpc2003/pdfs/programme/workshops/newways/amospres.pdf

Guild, W. (n.d.). *Why Deliberative Polls® can provide a superior solution for public input.* The Guild Group Inc. Retrieved March 27, 2007 from http://www.gldgrp.com/PDF%20Files/A%20Superior%20Solution%20for%20Public%20Input.PDF

Homer-Dixon, T. (1999). *Environment, scarcity and violence.* Princeton, N.J.: Princeton University Press.

Johnson, James (2001). Argumentos en favor de la deliberación. Algunas consideraciones escépticas. In J. Elster (Ed.) *La democracia deliberativa* (pp. 207-234). Barcelona: Gedisa.

Kenyon, W., Nevin, C. & Hanley, N. (2003). Enhancing environmental decision-making using citizen's juries. *Local Environment, 8*(2), 221-232.

Lehr, R.L., Guild, W., Thomas, D.L. & Swezey, B.G. (2003). *Listening to customers: How deliberative polling helped build 1,000 MW of renewable energy projects in Texas* (NREL/TP-620-33177). Golden, CO: National Renewable Energy Laboratory.

Lemos, M. C., & Agrawal, A. (2006). Environmental Governance. *Annual Review of Environmental Resources*, 31, 297-325. Retrieved March 21, 2007, from http://arjournals.annualreviews.org

Marshall, B.K., & Goldstein, W.S. (2006). Managing the environmental legitimation crisis. *Organization and Environment, 5,* 214-232. Retrieved June 17, 2007 from http://oae.sagepub.com/cgi/content/abstract/19/2/214

Muhlberger, P. (2006). *Report to the Deliberative Democracy Consortium: Building a deliberation measurement toolbox* (Version 1.0). Retrieved March 21, 2007 from http://www.geocities.com/pmuhl78/DDCReport.pdf

Mutz, D.C. (2006). *Hearing the other side: Deliberative versus participatory democracy.* New York: The Cambridge University Press

Nakooda, S., Dixit, S. & Dubash, N.K. (2007). *Empowering people: A governance analysis of electricity.* Washington, D.C.: World Resources Institute & Prayas Energy Group. Retrieved November 10, 2007 from http://pdf.wri.org/empoweringpeople.pdf

O'Connor, J. (1998). Capitalism, nature, socialism: A theoretical introduction. In J. S. Dryzek & D. Schlosberg (Eds.). *Debating the earth: The environmental politics reader* (pp. 438-457). Oxford: Oxford University Press.

O'Donnell, K. J. (1993). [Review of the book Coming to public judgement. Retrieved October 16, 2007, from the The Congressional Institute Web site: http://www.conginst.org/reviews/yankelovich.html

Ohlsson, L. (1999). Environment, scarcity and conflict – A debate and its origins. In *Environment, Scarcity, and Conflict – A study of Malthusian concerns* (chap. 1). Unpublished doctoral dissertation, University of Göteborg, Gothenburg, Sweden.

Petts, J. (2001). Evaluating the effectiveness of deliberative processes" Waste management case-studies. *Journal of Environmental Planning and Management, 44*(2), 207-226.

Pimbert, M. & Wakeford, T. (2003). Prajateerpu, power and knowledge: The politics of participatory action research in development. Part 1. Context, process and safeguards. *Action Research, 1*(2), 184-207.

Riedy, C. (2006). Two social practices to support the emergence of a global collective. *Journal of Future Studies, 10*(4), 45-60.

Shannon, M. A. (2002). Understanding collaboration as deliberative communication, organizational form and emergent institution. In O. Gislerud & I. Neven (Eds.), National Forest Programs in a European Context: European Forest Institute Proceedings No. 44 (pp. 7-25). Joensuu, Finland: European Forest Institute. Retrieved October 14, 2007, from http://www.efi.fi/attachment/f5d80ba3c1b89242106f2f97ae8e3894/774cf3cc4b717eb20ca0fc07c769978e/Proc_44.pdf

Shannon, M. A., & Antypas, A. R. (1996). Civic science is democracy in action. Northwest Science, 70(1), 66-69. Retrieved October 14, 2007, from http://www.vetmed.wsu.edu/org_NWS/NWSci journal articles/1996 files/Issue 1/v70 p66 Shannon and Antypas.PDF

Shapiro, I. (1999). Enough of deliberation. In S. Macedo (Ed.), *Deliberative politics: Essays on democracy and disagreement.* New York: Oxford University Press

Smith, G. (2003). *Deliberative democracy and the environment.* London: Routledge.

Steenbergen, M.R., Bächtiger, A., Spörndli, M. & Steiner, J. (2004, May). *Toward a political psychology of deliberation.* Paper presented at the Conference on Empirical Approaches to Deliberative Politics, Florence: European University Institute. Retrieved on January 11, 2007 from http://www.iue.it/SPS/People/SwissChairPdfFiles/PaperSteenbergenetal.pdf

Ureña, E.M. (1998). *La teoria critica de la sociedad de Habermas: La crisis de la sociedad industrializada [The critical theory of society of Habermas: The crisis of industrialized society].*(2nd ed.). Madrid: Tecnos.

Wakeford, T. & Pimbert, M. (2004). Prajateerpu, power and knowledge: The politics of participatory action research in development. Part 2. Analysis, reflections and implications. *Action Research, 2*(1), 25-46.

Young, O. (2002). Evaluating the success of international environmental regimes: Where are we now? *Global Environmental Change: 12*, 73-77.

Young, I.M. (2000). *Inclusion and democracy.* Oxford: Oxford University Press.

CHAPTER III

Brown, B. (2006, September). The four worlds of sustainability: Drawing upon four universal perspectives to support sustainability initiatives. *AQAL Journal of Integral Theory and Practice*. Retrieved October 21, 2006 from http://multiplex.integralinstitute.org/Public/cs/files/35/sustainability/default.aspx

Brown, S.R. (2008). *Political Subjectivity.* New Haven: Yale University Press. Retrieved August 5, 2008 from http://reserves.library.kent.edu/eres/coursepage.aspx?cid=203&page=docs

Dryzek, J.S. (2004). *Handle with care: The deadly hermeneutics of deliberative instrumentation.* Paper presented at the Conference on Empirical Approaches to Deliberative Politics, Florence: European University Institute. Retrieved January 11, 2007 from http://www.iue.it/SPS/People/SwissChairPdfFiles/PaperDryzek.pdf

Fox, J. (1997) How Does Civil Society Thicken? The Political Construction of Social Capital in Rural Mexico. In: P. Evans (Ed.) *State-Society Synergy: Government and Social Capital in Development*, *(119-149).* University of California Press/University of California International and Area Studies Digital Collection, Edited Volume #94. Retrieved February 28, 2008 from http://repositories.cdlib.org/uciaspubs/research/94/6

Meyer, D.S. & Minkoff, D.C. (2004, June). Conceptualizing political opportunity. *Social Forces, 82(4)*, 1457-1492.

McKeown, B. & Thomas, D. (1988). *Q Methodology.* Newbury Park, California: Sage Publications

Morgan, K. (2006). *Considering political opportunity structure: Democratic complicity and the antiwar movement.* Unpublished Senior Thesis. Haverford College, Haverford, PA.

Retrieved November 7, 2007 from http://triceratops.brynmawr.edu/dspace/bitstream/10066/725/1/2006MorganK.pdf

Riedy, C. (2006). Two social practices to support the emergence of a global collective. *Journal of Future Studies, 10*(4), 45-60.

Steelman, T.A. & Maguire, L.A. (n.d.) *Understanding participant perspectives: Q-Methodology in national forest management.* Retrieved April 2, 2007 from http://www.nicholas.duke.edu/people/faculty/maguire/env316/q5.htm

Tarrow, S. (1998). *Power in movement: Social movements and contentious politics.* (2nd. ed.). New York: Cambridge University Press.

Wilber, K. (2001). *A brief history of everything* (2nd. ed.). Boston: Shambhala.

Wilber, K. (2001). *A theory of everything: An integral vision for business, politics, science and spirituality.* Boston: Shambhala.

Wilber, K. (2001). *Sex, ecology and spirituality: The spirit of evolution.* Boston: Shambhala.

CHAPTER IV

Baber, W.F. & Bartlett, R.V. (2005). *Deliberative environmental politics: Democracy and ecological rationality.* Cambridge: MIT Press.

Bächtiger, A. & Steenbergen, M.R. (2004, November). *The real world of deliberation: A comparative study of its favorable conditions in legislatures.* EUI Working Paper SPS No. 2004/17. Florence: European University Institute. Retrieved December 4, 2007 from http://cadmus.iue.it/dspace/bitstream/1814/2634/1/sps2004-17.pdf

Brown, B. (2006, September). The four worlds of sustainability: Drawing upon four universal perspectives to support sustainability initiatives. *AQAL Journal of Integral Theory and Practice.* Retrieved October 21, 2006 from http://multiplex.integralinstitute.org/Public/cs/files/35/sustainability/default.aspx

Dryzek, J. (2000). *Deliberative democracy and beyond: Liberals, critics and contestations.* Oxford: Oxford University Press.

Fisher-Yoshida, B. (2005, June). Reframing conflict: Intercultural conflict as potential transformation. *Journal of Intercultural Communication-SIETAR, 8*, 1-16. Retrieved December 14, 2008 from http://www.humiliationstudies.org/documents/FisherYoshidaReframingConflictSIETAR.pdf

Fishkin, J. S. (1999). Chapter Twelve Toward Deliberative Democracy: Experimenting with an Ideal. In K.E. Soltan (Ed.) *Citizen Competence and Democratic Institutions*, (pp. 279-290).

University Park, PA: Pennsylvania State University Press. Retrieved January 10, 2008, from Questia database: http://www.questia.com/PM.qst?a=o&d=27794998

Formless Mountain (n.d.) *Integral Quadrants.* An integral atelier. Retrieved December 10, 2007 from http://www.formlessmountain.com/quads.htm

Fung, A. (2003). Associations and democracy: Between theories, hopes, and realities. *Annual Review of Sociology, 29,* 515-539.

Fung, A. (2005, June). Deliberation before the revolution: Toward an ethics of deliberative democracy in an unjust world. *Political Theory, 33,* 397-419. Retrieved February 6, 2007 from http://plx.sagepub.com

Goodin, R.E. & Dryzek, J.S. (2006, June). Deliberative impacts: The macro-political uptake of mini-publics. *Politics & Society, 34 (2),* 219-244. Retrieved November 2, 2007 from http://plx.sagepub.com

Guild, W., Lehr, R. & Thomas D. (2003, August 19). *Nebraska Public Power District Customer Meeting on Energy Alternatives: Summary of results.* Retrieved January 6, 2007 from http://www.nppd.com/newsroom/additional_files/deliberative_polling_results.pdf

Hoechst, E. H. (2004, Apr). *Not open for discussion: A psychological account of democratic deliberation*. Paper presented at the annual meeting of the The Midwest Political Science Association, Palmer House Hilton, Chicago, Illinois Retrieved December 15, 2007 from http://64.112.226.69/one/mpsa/mpsa04/index.php?cmd=mpsa04

Macnair, R.C., (2003). *The psychology of peace: An introduction.* Westport, C.T.: Praeger.

Marshall, B.K., & Goldstein, W.S. (2006). Managing the environmental legitimation crisis. *Organization and Environment, 5,* 214-232. Retrieved June 17, 2007 from http://oae.sagepub.com/cgi/content/abstract/19/2/214

Muhlberger, P. (2006). *Report to the Deliberative Democracy Consortium: Building a deliberation measurement toolbox* (Version 1.0). Retrieved March 21, 2007 from http://www.geocities.com/pmuhl78/DDCReport.pdf

Riedy, C. (2006, May). Two social practices to support emergence of a global collective. *Journal of Future Studies, 10 (4),* 45-60.

Rosenberg, S.W. (2004). *Reconstructing the concept of democratic deliberation.* CSD Paper 04-02. Irvine: University of California. Center for the Study of Democracy. Retrieved October 17, 2007 from http://repositories.cdlib.org/csd/04-02

Rosenberg, S.W. (2006). *Types of democratic deliberation: the limits and potential of citizen participation.* CSD Paper 06-12. Irvine: University of California. Center for the Study of Democracy. Retrieved October 17, 2007 from http://repositories.cdlib.org/csd/06-12

Rostboll, C.F. (2005, June). Preferences and paternalism: On freedom and deliberative democracy. *Political Theory, 33 (3),* 370-396. Retrieved November 3, 2007 from http://ptx.sagepub.com

Shannon, M. A. (2002). Understanding collaboration as deliberative communication, organizational form and emergent institution. In O. Gislerud & I. Neven (Eds.), National Forest Programs in a European Context: European Forest Institute Proceedings No. 44 (pp. 7-25). Joensuu, Finland: European Forest Institute. Retrieved October 14, 2007, from http://www.efi.fi/attachment/f5d80ba3c1b89242106f2f97ae8e3894/774cf3cc4b717eb20ca0fc07c769978e/Proc_44.pdf

Shannon, M. A. (2003). Mechanisms for coordination. In Dubé, Y. C. & Schmithüsen, F. (Eds.), *Cross-sectoral policy impacts between forestry and other sectors.* FAO Policy Paper No. 142. Rome: FAO. Retrieved January 13, 2008 from http://www.fao.org/docrep/006/Y4653E/y4653e08.htm

Shannon, M. A. (2002). Understanding collaboration as deliberative communication, organizational form and emergent institution. In O. Gislerud & I. Neven (Eds.), National Forest Programs in a European Context: European Forest Institute Proceedings No. 44 (pp. 7-25). Joensuu, Finland: European Forest Institute. Retrieved October 14, 2007, from http://www.efi.fi/attachment/f5d80ba3c1b89242106f2f97ae8e3894/774cf3cc4b717eb20ca0fc07c769978e/Proc_44.pdf

Smith, G. (2003). *Deliberative democracy and the environment.* New York: Routledge.

Steenbergen, M.R., Bächtiger, A., Spörndli, M. & Steiner, J. (2004, May). *Toward a political psychology of deliberation.* Paper presented at the Conference on Empirical Approaches to Deliberative Politics, Florence: European University Institute. Retrieved on January 11, 2007 from http://www.iue.it/SPS/People/SwissChairPdfFiles/PaperSteenbergenetal.pdf

Ureña, E.M. (1998). *La teoria critica de la sociedad de Habermas: La crisis de la sociedad industrializada [The critical theory of society of Habermas: The crisis of industrialized society].*(2nd ed.). Madrid: Tecnos.

Wilber, K. (2001). *A theory of everything: An integral vision for business, politics, science and spirituality.* Boston: Shambhala.

Wondolleck, J. M., Gray, B. & Bryan, T. (2003). Us versus them: How identities and characterizations influence conflict. *Environmental Practice, 5*(3), 207-213.

Young, I.M. (2000). *Inclusion and democracy.* Oxford: Oxford University Press.

CHAPTER V

Acevedo, B. (2002). Un pueblo que se despierta y toma conciencia [A people that awaken and become aware]. In B. Acevedo, C. Monge, R. Vargas, & R.J. Guadamuz (Eds.), *Cuento mi experiencia en la lucha por el ICE* (pp. 19-50). Heredia: Editorial Universidad Nacional.

Aguilar, A., Alvarado, X., Astorga, Y., Avendaño, S., Blanco, C., Mora-Portuguez, J., et. al. (2004). *Hacia una nueva ley del agua: Memoria de un proceso de construcción participativa [Towards a new water law: proceedings of a participatory construction process]*. San José: Grupo Técnico del Agua.

Alvarenga, P. (2005). *De vecinos a ciudadanos [From neighbors to citizens].* San Jose: Editorial Universidad de Costa Rica, Editorial de la Universidad Nacional.

Amador, J.L. (2000, July-December). El ICE , un símbolo, 50 años después ¿Por qué los costarricenses siguen queriendo al ICE? [ICE, a symbol, 50 years later. Why do Costa Ricans continue to love ICE?] *Revista Reflexiones, 179.* (Electronic) retrieved on September 13, 2007 from http://www.reflexiones.fcs.ucr.ac.cr/documentos/79/el_ice.pdf

Anderson, P., Pringle, C. & Rojas, M. (2006). Transforming tropical rivers: An environmental perspective on hydropower development in Costa Rica. *Aquatic Conservation: Marine & Freshwater Ecosystems, 16,* 679-693. Retrieved on October 3, 2007 from http://www.coecoceiba.org/images/Andersonetal2006_CRHydropower.pdf

Arias, O. (2007, May 8). *Informe presidencial: Lealtad con las esperanzas de nuestro pueblo [Presidential address: Loyalty with the hopes of our people].* First annual report before the Legislative Assembly. San Jose: Presidencia de la Republica de Costa Rica. Retrieved on October 6, 2007 from http://www.teletica.com/telenoticias/Discurso%20Arias%20Finalisismo.pdf

Asamblea Legislativa de la República de Costa Rica. (2003, August 7). *Telecomunicaciones, Energía y Monopolio [Telecommunications, Energy and Monopoly].* Cycle of debates about telecommunications, energy, modernization and strengthening of the Costa Rican Electricity Institute (ICE). San Jose: Author. Retrieved on September 16, 2007 from http://www.asamblea.go.cr/comisiones/ice2_telecomunicaciones.doc

Avalos A. (2007, May 5). ICE suspende cortes de electricidad en todo el país [ICE suspends power cots throughout the country]. *La Nación. (electronic)* Retrieved on October 5, 2007 from http://www.nacion.com/ln_ee/2007/mayo/05/pais1085589.html

Barahona, M.A., Gallardo, R. & Sojo, C. (2005). Concertación nacional en Costa Rica: Análisis de la experiencia de 1998 [National Consensus-building in Costa Rica: Analysis of the 1998 experience]. In A. Piazze & N. Flaño (Eds.), *Diálogo social en América Latina: Un camino hacia la democracia ciudadana. [Social dialogue in Latin America: A path towards citizen democracy].* Washington, D.C.: Inter-American Development Bank.

Barrantes, G. (2005). *Disponibilidad del recurso hídrico y sus implicaciones para el desarrollo en Costa Rica [Availability of water resources and its implications on the development of Costa Rica].* Ponencia preparada para el Undécimo Informe Estado de la Nación. San Jose: Programa Estado de la Nación. Retrieved on August 25, 2007 from http://www.estadonacion.or.cr/Info2005/Ponencias/Disponibilidad_recurso%20hidricos_%20implicaciones.pdf

Bermudez, M. (2005, August 9). Gobierno sin ley marco para abrir el sector de telecomunicaciones. [Government without framework law to open the telecommunications sector]. *El Financiero.* Retrieved on October 15, 2007 from http://www.hacienda.go.cr/centro/datos/Noticia/Gobierno%20sin%20ley%20marco%20para%20abrir%20el%20sector%20de%20telecomunicaciones-El%20financiero-9Ago-2005.doc.

Brafman, O. & Beckstrom, R.A. (2006). *The starfish and the spider: The unstoppable spirit of leaderless organizations.* New York: Portfolio. Retrieved March 20, 2008 from http://www.starfishandspider.com/preview/09.html

Castro, G. (2006, February 24) *América Latina niega ser presa de represas, empresas [Latin America denies falling prey to dams, corporations]* Series Citizen Action in the Americas, no. 19. Silver City, NM: International Relations Center. Retrieved September 26, 2007 from http://www.ircamericas.org/esp/3126

Cerdas, R. (2007, August 12). Ojo critico [Critical eye]. *La Nacion.* Retrieved October 15, 2007 from http://www.nacion.com/ln_ee/2007/agosto/12/opinion1199904.html

Cevallos, D. (2006, May 6) Latin America: Wave of opposition hits hydroelectric dams. *Tierramerica.* Retrieved on October 4, 2007 from http://ipsnews.net/news.asp?idnews=33150

Colegio Federado de Ingenieros y Arquitectos de Costa Rica. (n.d.) *Panorama nacional y regional de la industria eléctrica [National and regional overview of the electric industry]*. San Jose: Author. Retrieved on September 5, 2007 from http://www.cfia.or.cr/descargas/informe6.pdf

Conca, K. (2006). *Governing water: Contentious transnational politics and global institution building*. Cambridge, MA: The MIT Press.

Cortés, A. (2001). Cultura política y sistema de partidos políticos en Costa Rica. ¿Nuevas tendencias en el 2002? [Political culture and the political party system in Costa Rica. New trend in 2002?]. In: J. Rovira (Ed.) *La democracia de Costa Rica ante el siglo XXI. (233-253).* San José: Editorial de la Universidad de Costa Rica, Fundaciòn Friedrich Ebert, Instituto de Investigaciones Sociales. Retrieved on August 25, 2007 from http://www.iis.ucr.ac.cr/publicaciones/libros/textos/2/democracia/ 11Alberto%20Cortes.pdf

De la Cruz, V. (2004). *Las luchas sociales en Costa Rica [The social struggles in Costa Rica].* San Jose: Editorial de la Universidad de Costa Rica.

Duran, O. (2002). Desarrollismo hidroeléctrico antiecológico [Anti-ecologic hydroelectric developmentalism]. *Ambientico, 108.* (electronic). Retrieved on September 10, 2007 from http://www.una.ac.cr/ambi/Ambien-Tico/108/duran108.htm

Duran, O. (2005, August). Pacuare ya libre de represas, ¿pero hasta cuándo? [Pacuare is free of dams now, but for how long?]. *Ambientico, 143.* 22-23.

Dussan, M. (1996). *Electric power sector reform in Latin America and the Caribbean.* Working Paper Seried IFM-104. Washington, D.C.: Inter-American Development Bank. Retrieved on September 10, 2007 from http://www.iadb.org/sds/doc/1200eng.pdf

Fallas, C.E. (2001). *Distribución eléctrica del ICE y su aporte al desarrollo de Costa Rica. 1949-2000 [Electric distribution by ICE and its contribution to the development of Costa Rica. 1949-2000].* San Jose: Instituto Costarricense de Electricidad.

Fallas, C.E. (n.d.) *Sistema eléctrico, fuentes energéticas e historia de la electrificación en Costa Rica [Electric system, energy sources and history of electrification in Costa Rica].* San Jose: Fundación CIENTEC. Retrieved August 17, 2007 from http://www.cientec.or.cr/ciencias/energia/articulo3.html

Fallas, C.E. & Alvarez, F.J. (1997). *El ICE y la electrificación en Costa Rica 1949-1996. [ICE and electrification in Costa Rica 1949-1996].* San Jose: Instituto Costarricense de Electricidad.

Fallas, C.E. & Hernandez, M. (n.d.) *Breve historia de la electrificación en Costa Rica 1884-1995. [Brief history of electrification in Costa Rica 1884-1995].* San José: Instituto Costarricense de Electricidad.

Fox, J. (1997) How Does Civil Society Thicken? The Political Construction of Social Capital in Rural Mexico. In: P. Evans (Ed.) *State-Society Synergy: Government and Social Capital in Development*, *(119-149).* University of California Press/University of California

International and Area Studies Digital Collection, Edited Volume #94. Retrieved February 28, 2008 from http://repositories.cdlib.org/uciaspubs/research/94/6

Gallo, R (2005, May). Turismo de aventura y desprotección ambiental [Adventure tourism and lack of environmental protection]. *Ambientico, 140,* 11-12. Retrieved on September 13, 2007 from http://www.ambientico.una.ac.cr/140.PDF

Granados, R. (2006, October 18-20). Las disfuncionalidades encontradas en las politicas publicas de privatizacion, en el sector electrico de Costa Rica [The dysfunctional aspects found in the public policies for privatization in the electric sector of Costa Rica]. Lecture presented at the XVII International Conference on Development Strategies and Alternatives for Latin America and the Caribbean. Puebla, Mexico: AFEIEAL. Retrieved on September 20, 2007 from http://www.afeieal.eco.buap.mx/presentacioncd/ponencias/MESA4/12m4.pdf

Gray, B. & Putnam, L.L. (2003, September). Means to what end? Conflict management frames. *Environmental Practice, 5 (3),* 239-246. Retrieved October 8, 2006 from http://journals.cambridge.org/action/displayAbstract?aid=338755

Infopress Centroamericana (2003, February 21). *Nueva ley de electricidad: Puerta abierta al capital privado [New electricity law: Open door for private capital].* Retrieved on October 5, 2007 from http://www.inforpressca.com/inforpress/infor2003/1500-11.htm

Instituto Costarricense de Electricidad (2006). *Plan de expansion de la generación eléctrica Periodo 2006 – 2025 [Electric generation expansion plan for the 2006-2025 period]*. San Jose: Author. Retrieved October 18, 2006 from http://www.grupoice.com/esp/ele/planinf/Plan_Expansion_de_la_Generacion_2005.pdf

Instituto Costarricense de Electricidad. (n.d.). *Los primeros pasos hacia la electricidad: Luis Batres primer empresario electrico en Costa Rica [The first steps towards electricity: Luis Batres the first electricity entrepreneur in Costa Rica*]. Retrieved on August 5, 2007 from http://www.grupoice.com/esp/ele/infobase/pri_pas.htm

Instituto Costarricense de Electricidad. (n.d.). *Por una mejor calidad de vida [For a better quality of life*]. Retrieved on August 5, 2007 from http://www.grupoice.com/esp/cencon/pdf/ICE_generalidades.pdf

Jiménez, R., Flores, E.M., Rivas, G. & Quesada, G. (2003, September). *Desarrollo y Conservación del Ambiente [Development and Conservation of the Environment].* Cycle of Debates on Telecommunications, Energy and Modernization and Strengthening of the Instituto Costarricense de Electricidad. E.M. Rodríguez (Moderator) Legislative Assembly of the Republic of Costa Rica. Retrieved July 8, 2007 from http://www.asamblea.go.cr/comisiones/ice7_desarrollo y conservacion.doc

La República. (1958, May 16). *Breve historia de la electrificación en Costa Rica. [Brief history of the electrification of Costa Rica*]. La República. P. 10. Retrieved on August 5, 2007 from http://historia.fcs.ucr.ac.cr/hcostarica/documentos/h-electricidad.doc

Lehoucq, F.E. (1998). *Instituciones democráticas y conflictos políticos en Costa Rica [Democratic institutions and political conflicts in Costa Rica].* Heredia: Editorial Universidad Nacional de Costa Rica.

Liddell, J. (2007, August 27). Struggle to save river from big hydro dams faces rough going. *Rios Tropicales News*. (electronic) Retrieved on September 22, 2007 from http://www.lovecostarica.com/rios_tropicales/struggle.htm

Loaiza, V. (2007, April 21). ICE anuncia apagones para la próxima semana. *La Nacion* (electronic). Retrieved on October 3, 2007 from http://www.nacion.com/ln_ee/2007/abril/21/pais1070015.html

Marín, F. (2002). *Evolución, estado actual y futuro de la electricidad y las telecomunicaciones en Costa Rica [Evolution, current state and future of electricity and telecommunications in Costa Rica]*. San José: Rectoría de la Universidad de Costa Rica.

Ministerio de Planificación Nacional y Política Económica (2007). *Plan nacional de desarrollo 'Jorge Manuel Dengo Obregon' 2006-2010. [National development plan 'Jorge Manuel Dengo Obregon' 2006-2010.* San Jose: Author. Retrieved on September 26, 2007 from http://www.nacion.com/ln_ee/2007/enero/25/pnd2006-2010.pdf

Monge, M. (2006). *Energizing Rural Costa Rica: A Model of Local Participation & Rural Development.* Presentation at the 2006 Energy Week at the World Bank. Washington, The World Bank. Retrieved on August 27, 2007 from http://siteresources.worldbank.org/EXTENERGY/Resources/336805-1137702984816/2135734-1142446048455/MisaelMonge.ppt

Murillo, A.M. (2006, April 6). Oscar Arias propondra nuevos planes para el ICE. [Oscar Arias will propose new plans for ICE]. *La Nacion.* Retrieved on October 14, 2007 from http://www.nacion.com/ln_ee/2006/abril/06/pais3.html

Peterson, T.R. (2003, September). Social control frames: Opportunities or constraints? *Environmental Practice, 5 (3),* 232-238. Retrieved October 4, 2006 from http://journals.cambridge.org/action/displayAbstract?aid=338753

Porras, I & Neves, N. (2006). ICE Watershed Management Units. Country profile - Costa Rica. London: International Institute for Environment and Development. Retrieved on October 1, 2007 from http://www.watershedmarkets.org/documents/Costa_Rica_ICE_eng.pdf

Programa Estado de la Nación (2001). *Auditoria ciudadana sobre la calidad de la democracia [Citizen's audit about the quality of democracy].* San Jose: Author.

Programa Estado de la Nación (2004). *Décimo informe estado de la nación en desarrollo humano sostenible [Tenth report on the state of the nation in sustainable human development].* San Jose: Author.

Quesada, J.R., Masis, D., Barahona, M., Meza, T., Cuevas, R. & Rhenan, J. (2004). *Costa Rica contemporanea: Raices del estado de la nacion [Contemporary Costa Rica: the roots of the state of the nation].* San Jose: Editorial Universidad de Costa Rica.

Red Latinoamericana contra represas y por los rios, sus comunidades y el agua. (2007, May 7). *Denuncian que apagones intentan reactivar negocios privados.* San Jose. Retrieved on October 5, 2007 from http://www.redlar.org/noticia29.htm

Rivera, R., Rojas, M., Zeledon, F. & Guzman, J. (2006). *La democracia del nuevo milenio: Transformaciones políticas e institucionales en la Costa Rica contemporánea [The democracy of the new millennium: Political and institutional transformation in contemporary Costa Rica].* San Jose: FLACSO – UNDP. Retrieved September 20, 2007 from http://www.flacso.or.cr/fileadmin/documentos/FLACSO/apartiragosto2006/Desafiosmilenio.pdf

Rodriguez, C. (2003, May 14). No podrán destruir al ICE. [They will not be able to destroy ICE]. Interview with Jorge M. Dengo. *El Ojo. 42.* Retrieved on August 5, 2007 from http://www.pln.or.cr/noti/a030.htm

Rodriguez, E. (2003). Rodrigo Facio: Pensamiento y Acción. [*Rodrigo Facio: Thinking and Actions].* San José. Instituto Rodrigo Facio. Partido Liberación Nacional. Retrieved March 20, 2007 from http://www.pln.or.cr/irf/facio.htm

Rodriguez, P. (2000). *Desarrollo y regulacion de los servicios publicos en Costa Rica [Development and regulation of public services in Costa Rica].* San Jose: Autoridad Reguladora de los Servicios Publicos. Retrieved August 2, 2007 from http://www.hacienda.go.cr/centro/datos/Articulo/Desarrollo%20y%20regulaci%C3%B3n%20de%20los%20Serviios%20P%C3%BAblicos%20en%20Costa%20Rica.pdf

Rojas, M. (2001, July 13). *Fortalecimiento de la democracia. [Strengthening of Democracy].* Preliminary draft of a Chapter for inclusion in the Seventh Report on the State of the Nation in Sustainable Human Development. San Jose: Programa Estado de la Nación.

Romero, J. (2004, February 9-14). *La generacion electrica privada en Costa Rica [Private electricity generation in Costa Rica].* Lecture presented at the International Congress on Comparative Legal Cultures and Systems. Mexico: Instituto de Investigaciones Juridicas UNAM. Retrieved on September 19, 2007 from http://info.juridicas.unam.mx/inst/evacad/eventos/2004/0902/mesa1/23s.pdf

Rothman, F.D. (2001, December). A Comparative Study of Dam-Resistance Campaigns and Environmental Policy in Brazil. *The Journal of Environment Development. 10 (4),* 317-344. Retrieved February 11, 2008 from http://jed.sagepub.com/cgi/content/abstract/10/4/317

Ruiz-Caro, A. (2006). *Cooperación e integración energética en América Latina y el Caribe [Energy cooperation and integration in Latin America and the Caribbean].* Santiago de Chile: UN Economic Commission for Latin America and the Carribbean. Retrieved on September 3, 2007 from http://www.eclac.org/publicaciones/xml/4/25604/lcl2506e.pdf

Sojo, C. (2004). *Líneas de tensión: gestión política de la reforma económica. El Instituto Costarricense de Electricidad (ICE) y la privatización de empresas públicas [High tension lines: the political management of the economic reform. The Costa Rican Electricity Institute (ICE) and the privatization of public enterprises].* Santiago de Chile: U.N. Economic Commission for Latin America and the Caribbean.

Solis, M.A. (2002). Entre el cambio y la tradición: El fracaso de la privatización de la energía y las telecomunicaciones en Costa Rica [Between change and tradition: The failure of the privatization of energy and telecommunications in Costa Rica]. *Ciencias Sociales, 1, 33-48.* Retrieved on September 18, 2007 from http://redalyc.uaemex.mx/redalyc/pdf/153/15309504.pdf

Sotela, R. (2000). *Análisis y propuestas para el perfeccionamiento del marco regulatorio sobre el uso eficiente de la energía en Costa Rica [Analysis and proposals for the optimization of the regulatory framework for the efficient use of energy in Costa Rica].* Santiado de Chile: UN Economic Commission for Latin America and the Caribbean. Retrieved on September 3, 2007 from http://www.eclac.org/publicaciones/xml/9/4469/LCL1365-P-E.pdf

Tomiak, R. & Millan, J. (2002). *Sustainability of reform in Central America: Market convergence and regional integration*. Washington, D.C.: Inter-American Development Bank. Retrieved on September 10, 2007 from http://www.iadb.org/sds/doc/IFM-SustainabilityofReforminCentralAmerica-E.pdf

Torres, M. (n.d.). *Historia de los servicios eléctricos en Heredia [History of electric services in Heredia].* San Jose. Museo Histórico y Tecnológico del Grupo ICE..

UN Economic Comisión for Latin America and the Caribbean. (2003). *Evaluación de diez años de reforma en la industria eléctrica del Istmo Centroamericano [Evaluation of ten*

years of reforms in the electric industry of the Central American Isthmus]. Santiago de Chile: Author. Retrieved on September 10, 2007 from http://www.eclac.cl/publicaciones/xml/7/13927/L588-1.pdf

Ureña, P. (2002). La nueva batalla de "Rivas" y del "General Viejo" [The new battle of "Rivas" and of the "General Viejo"]. In B. Acevedo, C. Monge, R. Vargas, & R.J. Guadamuz (Eds.), *Cuento mi experiencia en la lucha por el ICE* (pp. 139-160). Heredia: Editorial Universidad Nacional.

Vargas, A. (2001*).* El manejo histórico de los recursos hídricos en Costa Rica con énfasis en el período Indígena y en los Siglos XVI, XVII, XVIII y XIX [The historical management of water resources in Costa Rica with emphasis in the Indigenous period and the XVI, XVII, XVIII and XIX Centuries]. *Anuario de Estudios Centroamericanos. Universidad de Costa Rica, 27.* 59-81.

Vargas, L. (2002). *Competitiveness, innovation and democracy: Space for clean energy within electricity reforms*. Heredia: Editorial de la Fundacion de la Universidad Nacional.

Vargas, L.P. (2003). *La estrategia de liberalización económica (Periodo 1980-2000) [The economic liberalization strategy (The 1980-2000 Period)].* San Jose: University of Costa Rica.

Vega, R. (2005, July-August). El desarrollo energético de la region [The energy development of the region]. *Ingenieros y Arquitectos: Revista del Colegio Federado de Ingenieros y Arquitectos de Costa Rica*, *215*. 30-31.

CHAPTER VI

Alvarez, M. Personal communication, September 28, 2007.

Araya, E. Personal communication, February 21, 2008.

Arias, R. Personal communication, November 20, 2007.

Bäckstrand, K. & Lövbrand, E. (2006). Planting trees to mitigate climate change: Contested discourses of ecological modernization, green governmentality and civic environmentalism. *Global Enviromental Politics: 6(1)*, 50-75.

Brown, S.R. (2008). *Political Subjectivity.* New Haven: Yale University Press. Retrieved August 5, 2008 from http://reserves.library.kent.edu/eres/coursepage.aspx?cid=203&page=docs

Coto, O. Personal communication, August 21, 2007.

Dryzek, J. (2005). *The politics of the Earth: Environmental discourses* (2nd. ed.). Oxford: Oxford University Press.

Giddens, A. (2001). *Mas alla de la izquierda y la derecha: El futuro de las politicas radicales [Beyond left and right: The future of radical politics]* (4th ed.). Madrid: Catedra.

Guido, E. Personal communicaiton, January 28, 2008.

Leon, C. Personal communication, November 10, 2007.

McKeown, B. & Thomas, D. (1988). *Q Methodology.* Newbury Park, California: Sage Publications

Rojas, M. Personal communication, February 22, 2008.

Romero, J.C. Personal communicaiton, February 22, 2008.

Salazar, C. Personal communication, September 27, 2007.

Solis, V. Personal communication, September 14, 2007.

Ureña, P. Personal communication, January 30, 2008.

CHAPTER VII

Acevedo, B. (2002). Un pueblo que despierta y toma conciencia. [A people who awaken and become aware] In B. Acevedo, C. Monge, R. Vargas, & R.J. Guadamuz (Eds.), *Cuento mi experiencia en la lucha por el ICE* (pp. 19-47). Heredia: Editorial Universidad Nacional.

Alpizar, K. (2008, September 16). "Hemos creado una Costa Rica que es una verdadera telaraña": Arias cansado de ingobernabilidad y Críticas ["We have created a Costa Rica that is a veritable spider web": Arias tired of ungovernability and criticism]. *La Prensa Libre.* Retrieved October 21, 2008 from http://www.prensalibre.co.cr/2008/setiembre/16/nacionales03.php

Alvarenga, P. (2005). *De vecinos a ciudadanos [From neighbors to citizens].* San Jose: Editorial Universidad de Costa Rica, Editorial de la Universidad Nacional.

Asamblea Legislativa de la República de Costa Rica. (2005, Mayo 3). *Acta No. 54 de la Comisión Especial Investigadora sobre Concesiones Públicas y Contratos del Estado. Expediente 14.946.* [*Minutes No. 54 of the Special Commission on Public Concessions and Government Contracts. File 19.046]* San Jose: Author. Retrieved December 28, 2008 from

http://www.asamblea.go.cr/actas/comision/2002-2006/mc14946/acta54.doc

Bächtiger, A. & Steenbergen, M.R. (2004, November). *The real world of deliberation: A comparative study of its favorable conditions in legislatures.* EUI Working Paper SPS No. 2004/17. Florence: European University Institute. Retrieved December 4, 2007 from http://cadmus.iue.it/dspace/bitstream/1814/2634/1/sps2004-17.pdf

Bagby, K., & Kusel, J. (2002). *Civic science partnerships in forestry: Building capacity for participation among underserved communities*. Taylorsville, California: Pacific West Community Forestry Center. Retrieved October 14, 2007, from http://sierrainstitute.us/PWCFC/publications/Civic_Science.pdf

Bäckstrand, K. & Lövbrand, E. (2006). Planting trees to mitigate climate change: Contested discourses of ecological modernization, green governmentality and civic environmentalism. *Global Enviromental Politics: 6(1)*, 50-75.

Carazo, E. (2002). Porque todos podemos [Because we all can] In B. Acevedo, C. Monge, R. Vargas, & R.J. Guadamuz (Eds.), *Cuento mi experiencia en la lucha por el ICE* (pp. 123-135). Heredia: Editorial Universidad Nacional.

Castells, M. (2001). *La era de la información: Economía, sociedad y cultura. Volumen 2. El poder de la identidad. [The information age: Economy, socity and culture. Volume 2. The power of identity].* Madrid: Alianza Editorial.

Castro, R. (2008, April). De las debilidades y amenazas en electricidad a las fortalezas y oportunidades [From weaknesses and threats in electricity to strengths and opportunities]. *Ambientico, 175*, 7-9. Retrieved October 31, 2008 from http://www.ambientico.una.ac.cr/175.pdf

Dryzek, J. (2004). *Handle with care: The deadly hermeneutics of deliberative instrumentation.* Paper presented at the Conference on Empirical Approaches to Deliberative Politics, Florence: European University Institute. Retrieved January 11, 2007 from http://www.iue.it/SPS/People/SwissChairPdfFiles/PaperDryzek.pdf

Fundación para la Paz y la Democracia. 2008. *Informe final del Proyecto: Contratación de una firma consultora para la ejecución de capacitación y creación de capacidades RAC en organizaciones en los territorios ABRE. [Final project report: Hiring of a consulting firm for the execution of training and ADR capacity-building in organizations in territories under special regimes].* Unpublished manuscript.

Fung, A. (2005). Deliberation before the revolution: Toward an ethics of deliberative democracy in an unjust world. *Political Theory, 33,* 397-419. Retrieved February 6, 2007 from

http://plx.sagepub.com

Karl, H., Susskind, L.E. & Wallace, K.H. (2007, January-February). A dialogue not a diatrabe: Effective integration of joint science and policy through joint fact finding. *Environment, 49(1),* 20-34. Retrieved November 2, 2008 from http://web.mit.edu/dusp/epp/music/pdf/ENV_JF07_JFFarticle.pdf

National Research Council. (2008). *Public Participation in Environmental Assessment and Decision Making*. Panel on Public Participation in Environmental Assessment and Decision Making. T. Dietz and P.C. Stern, (Eds.) Committee on the Human Dimensions of Global Change. Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press Retrieved December 22 2008 from http://www.nap.edu

Poncelet, E.C. 2004. *Partnering for the environment: Multistakeholder collaboration in a changing world.* New York: Rowman & Littlefield.

Rivera, R., Rojas, M., Zeledon, F. & Guzman, J. (2006). *La democracia del nuevo milenio: Transformaciones políticas e institucionales en la Costa Rica contemporánea [The democracy of the new millennium: Political and institutional transformation in contemporary Costa Rica].* San Jose: FLACSO – UNDP. Retrieved September 20, 2007 from http://www.flacso.or.cr/fileadmin/documentos/FLACSO/apartiragosto2006/Desafiosmilenio.pdf

Rosenberg, S.W. (2006). *Types of democratic deliberation: the limits and potential of citizen participation.* CSD Paper 06-12. Irvine: University of California. Center for the Study of Democracy. Retrieved October 17, 2007 from http://repositories.cdlib.org/csd/06-12

Ureña, P. (2002). La nueva batalla de “Rivas” y del “General Viejo” [The new battle of “Rivas” and of the “General Viejo”]. In B. Acevedo, C. Monge, R. Vargas, & R.J. Guadamuz (Eds.), *Cuento mi experiencia en la lucha por el ICE* (pp. 139-160). Heredia: Editorial Universidad Nacional.

Watzlawick, P., Beavin Bavelas, J. & Jackson, D.D. (1997). *Teorías de la comunicación humana: Interacciones, patologías y paradojas* [*Pragmatics of human communication*]. 11th Ed. Barcelona: Herder.

Wilber, K. (2001). *A brief history of everything* (2nd. ed.). Boston: Shambhala.

Wilber, K. (2001). *A theory of everything: An integral vision for business, politics, science and spirituality.* Boston: Shambhala.

Wilber, K. (2001). *Sex, ecology and spirituality: The spirit of evolution.* Boston: Shambhala.

CHAPTER VIII

Alvarenga, P. (2005). *De vecinos a ciudadanos [From neighbors to citizens].* San Jose: Editorial Universidad de Costa Rica, Editorial de la Universidad Nacional.

Farrelly, C. (2004). *An introduction to contemporary political theory.* London: Sage Publications.

Giddens, A. (2001). *Mas alla de la izquierda y la derecha: El futuro de las politicas radicales [Beyond left and right: The future of radical politics]* (4th ed.). Madrid: Catedra.

Guild, W. (n.d.). *Why Deliberative Polls® can provide a superior solution for public input.* The Guild Group Inc. Retrieved March 27, 2007 from http://www.gldgrp.com/PDF%20Files/A%20Superior%20Solution%20for%20Public%20Input.PDF

Lehr, R.L., Guild, W., Thomas, D.L. & Swezey, B.G. (2003). *Listening to customers: How deliberative polling helped build 1,000 MW of renewable energy projects in Texas* (NREL/TP-620-33177). Golden, CO: National Renewable Energy Laboratory.