ENVIRONMENTAL NEWS IN SOUTH AMERICA

CONFLICT, CRISIS AND CONTESTATION

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AND J. ALEJANDRO TIRADO-ALCARAZ

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Environmental News in South America

Conflict, Crisis and Contestation

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Introduction: Extraction, National Development and Environmental News in Twenty-first-century South America

Embattled former Brazilian President Dilma Rouseff did not mince words in 2012 when she explained to the press why her administration had rolled back decades-old environmental protections for the Amazon region. Facing angry questions regarding why she would agree to open the doors for new development, logging and farming in formerly protected areas, she said: "I have to explain to people how they are going to eat, how they'll have access to water, how they'll have access to energy" (quoted in Prada 2012).

The Rouseff administration's plans to build 21 dams in the Amazon, the so-called "lungs of the world," were part of the state narrative aimed at meeting the energy needs of a booming middle class and reinserting itself into extractive activities after years of neoliberal policies that effectively outsourced such activities. The state, in effect, was back. Indeed, in the last decade, 30 million Brazilians joined the middle class, as the country's gross domestic product (GDP) exploded and foreign investment poured in, primarily to the natural resources, energy and mining sectors (Cavusgil and Kardes 2013).

Such plans come at a high environmental, social and political price. Hydroelectric projects in the Brazilian Amazon—a region that contains nearly one-third of the world's biodiversity and is an important component of global fresh water, carbon and climate cycles—have come under fierce criticism. Chief among these critics are the tens of thousands of

indigenous peoples whose tribes have lived in this region for thousands of years, and who say the dams' development will displace them, or otherwise end their access to these natural areas. In May 2013, 170 members of indigenous tribes occupied a construction site at the Belo Monte hydro-electric plant, which, when completed, will be the fourth largest in the world and will divert 80 percent of the flow of one of the Amazon's main tributaries. In an open letter to the Brazilian government, the protesters wrote:

> We are the people who live in the rivers where you want to build dams....
> We are Brazilians. The river and forest are our supermarket. Our ancestors are older than Jesus Christ.... What we want is simple:
>   You need to uphold the law and promote enacting legislation on free, prior and informed consent for indigenous peoples.... We want dialogue, but you are not letting us speak.... You need to stop everything and simply listen to us. (quoted in Lowery-Evans 2013)

As these quotes and images spilled onto front pages, newscasts, social media and smartphones, they served to delineate the scope of the crisis for their publics. News coverage in South America provides an important laboratory that can help us understand how local politics, journalistic culture and professionalism, and the politics of extractive economies interface within a context of weak rule of law and environmental regulation, and established power structures. Global and local concerns interact in a potent mix of neo-populism, extractivism and post-neoliberalism, high inequality and poverty, multinational capital flows, indigenous politics, and citizen activism centered around growing access to new media technologies, as international capital and global commodity change chains meet local production, politics and cultures. As local environmental politics are channeled through political systems and networked into global arenas, the ways in which regional and national media articulate the discourse; translate and frame definitions of identity, modernity, nature, development and sovereignty; and legitimize actors—among other functions—is of interest to a variety of research agendas, from environmental studies, to sociology, anthropology and media studies. This book attempts to map out these interfaces as they are displayed in mediated arenas, as a means to determine both the influences upon environmental news surrounding hotly contested natural resources, as well as how institutional practices, norms and routines are shaping the debate. We draw from media studies, environmental studies

and Latin American studies to provide a comprehensive explanation of the interfaces of media content, environmental conflict and the political ecology of environmental change.

Standoffs such as that at Belo Monte, between administrations favoring extractive policies and residents aghast at the prospect of increased environmental destruction, are not particular to Brazil. During the first decades of the twenty-first century, across South America, governments rode the wave of a commodities boom, as officials looked to extractive industries as a means of driving economic growth and funding social development (Gao 2015). In this race to harness natural resources, technology and capital to transform their societies, administrations from Argentina to Venezuela aggressively promoted mining, logging, oil, and other extractive industries, using discourses that often equated resource exploitation and development, modernization and social well-being, a new form of what Yates and Bakker (2014, p. 15) refer to as "resource nationalism". As oil prices skyrocketed shortly after the turn of the millennium, presidents in Argentina, Bolivia, Ecuador and Venezuela renationalized their oil or gas industries. In 2007, Bolivian Vice President Álvaro García Linera shrugged off comparisons with the old populist rhetoric of nationalization, saying his country practiced "twenty-first-century-style nationalization":

> [F]oreign companies with capital and know-how are present in the country with their machinery, and they can earn profits, but never again can they be the owners of the gas and the petroleum. (quoted in Llana 2007)

Basing national economies on national resource extraction and exportation meant something of a return to late nineteenth- and early twentieth-century economic strategies of Latin American nations that were largely abandoned during the Great Depression, when commodity prices crashed (Di Filippo 2009). As Miller (2007, p. 219) wrote:

> For much of Latin America's history, the world economy has treated the region as a basket of natural resources that have been packaged and shipped to satisfy the consumption of richer foreign nations. Nature ... equates to a commodity, an article of exchange that brings profit to the seller and pleasure to the buyer.

In political discourse as well, this dependence on extractive industries such as mining or hydrocarbon exploration is presented as representing

the pillars of growth, development and modernization by political regimes. Leftist governments tied their progressive rhetoric to extractivist policies, arguing that such large-scale extraction and exportation to feed the huge global demand from countries such as China and India, for example, was justified in the name of national development strategies. This coupling of extractivism and progressivism swept across South America and represented, to some degree, a shift away from the neoliberal policies of administrations in the late twentieth century. The election of Hugo Chávez as president of Venezuela on the eve of the millennium signaled the start of the "pink tide," the term used by the Venezuelan leader to describe the shift to more center-left administrations across South America (e.g. Argentina, Bolivia, Brazil, Chile, Ecuador, Peru, Uruguay and Venezuela). This movement opened the door, in some cases, to what some have termed "post-neoliberalism," which they argue does not represent a complete break with neoliberal policies but does "[redirect] a market economy towards social concerns" (Yates and Bakker 2014, p. 3). Others describe it as a political reaction against "excessive marketization," deregulation, foreign investment and privatization of the region's neoliberal administrations of the late twentieth century, as well as an attempt to focus on social concerns while not losing ground in the global political economy (Grugel and Riggirozzi 2012, pp. 3–4).

Post-neoliberalism in South America coincided with a natural resources boom that meant strong growth rates based on commodities exports in the 2000s for countries such as Argentina, Brazil and Ecuador (Grugel and Riggirozzi 2012, p. 13); in 2006, Argentina's GDP grew 8.5 percent, in 2010, Brazil's GDP grew 7.5 percent, and in 2011, Ecuador's grew 7.8 percent (World Bank 2014b). Poverty rates were reduced somewhat, and middle classes expanded, in some cases double digits, as economies boomed and employment opportunities increased (Gao 2015; Grugel and Riggirozzi 2012; World Bank 2014a). Extractivist policies became once again, if not "a consolidated development project," as Burchardt and Dietz (2014, p. 470) noted, then a defining feature of a new economic model (Petras and Veltmeyer 2014, p. 24).

However, promises of social betterment and inclusion, and particularly reducing steep income inequality, have largely not been realized in a sustained and meaningful way for all population sectors, and are subject to global patterns and influences that are not easily controlled by state policy

interventions (Gudynas 2010; Petras and Veltmeyer 2014; Székely and Mendoza 2016; Veltmeyer 2012). Gudynas (2010) indicated that socio-economic indicators for populations living in extractivist countries still show sharp inequality and large numbers living in poverty. The scale of neo-extractivism is immense, with enormous investment costs, something which Svampa (2013, p. 66) says makes these enterprises capital intensive rather than providing for labor needs. And, in the tradition of boom-and-bust commodity price cycles, in 2016, Latin America was facing its fifth successive year of economic slowdown, with Agosto de la Torre, the World Bank chief economist for Latin America and the Caribbean, quoted in the *Wall Street Journal* as describing the region's vulnerability to commodity price swings as "unique in the world. Not even middle-income African countries have such a strong exposure" (Harrup 2016).

The reason neo-extractivist strategies have failed to deliver their promise to meet social demands may lie in underlying political and economic interests that maintain old patronage networks. Veltmeyer (2012, p. 72) argues that the state's use of natural resource extraction as a development strategy was:

> predicated on a dependence on extractive capital and on the need to negotiate and strike a deal with the operators of this capital as to how to share the proceeds.... [T]he purported "new extractivism" boils down to nothing more than the state striking a better deal with global capital regarding its share of the plundered resources.

As neo-extractivism is also intensely global, sending capital to far-flung countries, increasing dependence on global markets and multinational capital in a manner that elicits few benefits for populations near the actual site of extraction (Yates and Bakker 2014, p. 73), those populations living at the site of such extraction can reap few of the economic or social benefits but suffer most of the health risks. In the Peruvian Amazon, east of the Andes and bordering Bolivia, Brazil, Colombia and Ecuador, at the source of the Amazon River, indigenous residents and townspeople protested in 2007 over government development projects that sought to facilitate foreign investment in extractive industries on indigenous territories. The indigenous protesters squared off against the security apparatus of President Alan García, who supported the sale of large swaths of land for foreign investment in a dramatic restructuring program that he said served to utilize the region's tremendous natural resources as a mechanism to generate jobs and foreign investment,

particularly in oil exploration, logging and commercial farming industries. In his view, this shift from "empty countryside" to modern development in the Amazon would benefit Peruvians (Bebbington 2009). However, indigenous residents and other townspeople felt their property rights were being violated, and their access to territorial lands and therefore their means of survival would be fatally diminished (Stetson 2012). The conflict reached a climax in June 2009, with the deaths of dozens of protesters and police in violent confrontations. In vivid statements to the press that openly evoked deep-rooted sentiments and exposed stark cleavages in perceptions of what constitutes modernity, progress, ethnic divides and development, García implicitly compared dualities of modernity and primitivism, of development and backwardness, in the way he characterized those who protested the state projects:

> Enough is enough. These people are not monarchy, they are not first-class citizens. Who are 400,000 natives to tell 28 million Peruvians that you have no right to come here?...[W]hoever thinks this way wants to lead us to irrationality and a retrograde primitivism. (quoted in Bebbington 2009, p. 13)

The latest round of tensions and conflicts among social and private sectors, the state and grassroots movements over control and management of natural resources is displayed to varying degrees in international mediated arenas. There is plenty to report: home to massive biosystems such as the Amazon, where natural resource conservation and preservation measures can run up against the unending, ceaseless drumbeat of extractivism, South America is also one of the deadliest regions in the world for environmental activists. The watchdog group Global Witness reported that 2015 was the most dangerous year yet for environmental activists, with 185 activists murdered in a total of 15 countries, 7 of which were in Latin America (Chiang-Warren 2016). Brazil led the group with 50 murders, far more than the 33 in the Philippines.

Such transformations resonate with Beck's (1992) concept of a risk society, which discussed the shift to an individualized, information society in late modernity, where people face the hazards of "manufactured" and "contemporary risks" brought about by modernization (Murdock et al. 2003, p. 157). Media play a prominent role in risk societies as they socially construct public discourse that can manufacture uncertainty, highlight "technologically induced catastrophes," act as gatekeepers, amplifiers or silencers for competing claims and claims-makers (summarized in Cottle 1998).

Latin American Environmental Communication

Unique factors make South America a particularly compelling region in which to explore environmental conflict discourses via an environmental news lens. While they vary widely across the region, South American media systems share important historical characteristics, such as a common colonial heritage and history of many legacy news outlets founded as family-owned partisan mouthpieces with strong literary traditions; other structural points of comparison include varying degrees of political and economic instability for much of the twentieth century (Waisbord 2000). However, today, media organizations exist along varied continuums of ideological proximity to state or market interests, presenting interesting opportunities to explore politicized environmental discussions. This has allowed for formulations of partisanship, advocacy and populist journalism that exist alongside commercial logics, as media and the state have been at what Waisbord calls "a close distance" (Waisbord 2010, p. 308). Journalists seek to influence public opinion without disrupting the status quo (Mellado et al. 2012). Strong state interventions, oligarchic ownership structures and the instrumentalization of media have meant a legacy of owner influence on content to achieve political and financial goals (Hallin and Papathanassopoulos 2002; Harlow 2012; Hughes and Lawson 2005; Pinto 2008; Porto 2007). Editorial positions, along with journalistic norms and routines, have import for news coverage (Waisbord 2013).

Such structural factors impact environmental reporting in the region. The frames that media actors enacted and constructed have roots in the complex negotiations and historical backdrop of the political, economic, social and cultural underpinnings surrounding access to and control over resources. We begin with the understanding that news is socially constructed, that is, it is a negotiation among media professionals, institutional actors and sources, potential and actual, in the struggle to get stories in the public eye. In this conception, mediated arenas become a battleground for legitimacy over definitions and perspectives. Local contestations over resource control and management link to global production and knowledge networks, as debate can spread quickly to transnational public spheres, all of which can have import for policy, public opinion and politics. In terms of environmental contestation, media play significant roles: They define risk, provide arenas for contestation among actors and frame issues and involved parties. They can

amplify or silence contesting voices, legitimize views, activate or suppress collective action or otherwise shape the discourse and outcome (e.g. Carvalho 2007; Hansen 1993; Anderson 1997; Lester 2010; Lester and Hutchins 2013). Media coverage of environmental issues is cyclical, event-driven, heavily dependent on elite sources, focused on the political, and reliant on cues from powerful actors (e.g. Boykoff and Roberts 2007; Dotson et al. 2012; Greenberg et al. 1989; Roser-Renouf and Nisbet 2008; Sood et al. 1987; Trumbo 1996). However, scholars have found that generally, in transforming newsrooms globally, news organizations have dedicated scant attention to these themes, as journalists must often contend with a lack of resources and limited access to environmental data wherever information legislation may be absent or weakly enforced. Advertising pressures, editors' resistance and minimal resources for training can also impact reporting (Jukofsky 2000; Nauman 2005; Waisbord and Peruzzotti 2009).

While academic research in environmental news has examined many facets of U.S. and U.K. news reporting (e.g. Anderson 1997; Boykoff 2007, 2011; Carvalho 2007; Cottle 2000; Dunwoody and Griffin 1993; Hansen 1993; Lester 2010; Lowe and Morrison 1984; Miller 2009), the field of environmental communication has yet to comprehensively examine factors that guide environmental news coverage in Latin American mainstream news. Scholars have examined Latin American media coverage related to climate change (Diaz-Nosty 2009; Dotson et al. 2012; Guedes 2000; Mercado 2012; Takahashi 2011; Zamith et al. 2013), citizen activism and citizenship (Pinto 2012; Waisbord and Peruzzotti 2009), and science journalism (Massarani et al. 2005; Massarani and Buys 2007; Reis 2008), but less is known about cultural influences on news production regarding environmental contestation, although socio-cultural factors have been noted by others as significant variables in covering issues such as climate change. What are the influences on journalism regarding environmental issues, at the individual, organizational and institutional level? How are "invisible flows of power at work in broader, societal processes" (Takach 2013, p. 212) made evident in the digital content developed around the actors, events and discourse? Deeper understanding perhaps lies in exploration of the social constructions of news, and how themes of neo-extractivism and neoliberalism are wrapped around discourses of modernization, citizenship, scientific knowledge and nationalization.

Political Ecology and Neo-extractivism in the News

Approaches and perspectives from the field of political ecology provide useful means of understanding environmental conflict and how it may be socially constructed in news. Grounded in the premise that environmental change and ecological conditions are fundamentally the result of broader political and economic machinations (Byrant and Bailey 1997; Robbins 2004), it aligns well with social representations, constructions and explanations of such processes. Extractivism itself represents conceptually a useful analytical tool in that environmental problems are indicative of the global and interlinked forces associated with the spread of capitalism and capitalist means of production, as well as policy interventions that promote such activity. (Bryant and Bailey 1997).

Historical interfaces of power and hegemony meet the extractive frontier as administrations in the region seek to open more land that is sparsely populated but rich in abundant natural resources to private development and extractive industries. As Diamond et al. (1999, p. 15) have noted, "the past does weigh heavily on the present in Latin America." Latin American nations have undergone various structural and societal transformations, including shifts from a "patrimonial monarchical state pursuing mercantilistic policies" (Diamond et al. 1999, p. 16) to varying forms of political regimes throughout the twentieth century, with structural legacies that engendered different degrees of ethnic cleavages, economic and social inequalities, and political development (Waisman 2006). Notably, during the latter half of the twentieth century, a number of authoritarian governments took power across the region, resulting in what Collier (1979, p. 19) called a "fundamental reorientation of national politics" as repressive regimes sought to eliminate populist politics and popular sectors, with the implementation, in most cases, of economic restructuring programs that radically shifted economic policies toward neoliberalism and away from statist ones (Schamis 1991). Such regime shifts had high social costs, as thousands of opposition figures disappeared, underwent torture or were murdered by state actors.

At the same time, political and economic restructuring had significant implications for natural resources and their management. Even as the authoritarian military regimes were replaced by more democratic ones, neoliberal policies propagated free market ideals across much of the region, intensified in some cases by the onset of globalization and the

influx of multinational corporations seeking access to a wealth of natural resources. These policies have had direct and indirect impacts on environmental resources (Liverman and Villas 2006), and in some cases resulted in relaxation of environmental regulations; the privatization of rights to publicly owned resources, such as water, land, forests and fisheries; the approval of global or regional free trade agreements; and cuts to public expenditure (Liverman and Vilas 2006; Miller 2007; Yates and Bakker 2014).

The legacy of neoliberalism, neo-extractivism and their associated environmental impacts has been uneven. In various instances, neoliberal policies and economic crises served to aggravate already steep inequality (Roberts 2002). South Americans experienced democratization in the 1980s, together with a decline in living standards, as public expenditure was slashed and privatization deepened (Grugel and Riggirozzi 2012). Liverman and Vilas (2006, p. 356) note that:

> There is little evidence in this review that the Latin American environment is better protected under neoliberal policies, but it is also not clear that a revival of state regulation, state and common ownership, and trade protections would be affordable and effective in a global economy.

Media content, as it is tightly tied to political narrative and theatre, provides an interesting mechanism for unpacking the politics of environmental degradation in systems that lie at varying points along the capitalist scale. Extractivist narratives are undergirded with themes related to modernization and development discourses, and have roots in political, economic and socio-cultural factors, both within national borders and internationally (Bryant and Bailey 1997). Such discourses are mirrored in and shaped by mediated constructions, and it is important to understand the multiscale contexts in which these processes flow. Our task here is to map the mediated discourse, to unpack the constructions of news built around these varied rhetorics and logics, to see how newsrooms covering the conflict presented their versions of daily events, to observe which meanings emerged from the political struggles, and to explain how and why they transformed over time. We draw on a number of approaches to analyze the mediated discourse that emerged from these conflicts, and to examine how discourse was transformed across regional and national levels. Our approach is to critically examine the conflicts through mediated discourse and interviews with the constructors of the discourse. News is

socially constructed partially as a result of a multilevel web with deep historical roots of social relations, political and economic alliances, knowledge and norms, and struggles over meaning. Such a comprehensive view moves the discussion beyond elite discourse and into a more thorough examination of, as Hansen (2011, p. 20) discusses, "the deeply ideological nature of public communication" and the implications of unequal power distributions for public understanding and policy direction. It focuses on the political as well as the environmental to understand environmental change since "the status quo is an outcome of political interests and struggles" (Bryant and Bailey 1997, p. 5). It seeks to trace the matrix of Beck's "relations of definitions," as various institutional and organizational actors, interests and claims seek to dominate constructions of risk and potential harm to public safety (quoted in Cottle 2006, p. 121).

At the same time, we recognize the imprint of power reconfigured by post-neoliberal policies laid over historical ethnic, social and class cleavages. As Grugel and Riggirozzi (2012, p. 15) note, "post-neoliberalism is not so much an attempt to return to state capitalism as to refashion the identity of the state, redefine the nature of collective responsibilities, build state capacity and rethink who national development is for." Locating these constructions within their wider contexts, we connect them to issues of power and inequality in the public spheres that mediated organizations should, in principle, serve. A key point here is the voice of indigenous actors and their associated organizations in the news. As Stetson (2012, p. 80) noted:

> Indigenous resistance in the Peruvian Amazon is clearly part of a larger trend in Latin America and elsewhere of local people rising up against neoliberal policies that seek to place natural resource development in the hands of private entities.

Social resistance to neoliberal and neo-extractive activities undertaken by government partnerships with multinational capital is a crucial component of an examination of mediated practices. Social movements in Latin America, which have historically been excluded from or criminalized in legacy media accounts (Pereira De Silva and Rothman 2011), have gained a footing via sophisticated media strategies and the availability of new technologies and social media to amplify their voices—although some have noted that in doing so they can lose control of the message (Waisbord 2013). As local groups link to international non-governmental

organizations (NGOs) and other organizations, political struggles align globally, nationally and locally, although such "scale jumping" has not always resulted in increased empowerment or impacted political outcomes (Haarstad and Floysand 2007).

Related to this, the multiscale nature of environmental conflict is another key factor, as linkages among perceptions of humans' place in natural systems scale up to global levels. Environmental politics in Latin America have local, national and global dimensions, as local built environments and extractive activities have links to global political economies (Bryant and Bailey 1997; Lipschultz 2004, p. 135). Natural landscapes are constantly subjected to transformations as a result of human production and social reconstructions, and environmental knowledge-construction frameworks are inherently political (Forsyth 2003). Therefore, an analysis that incorporates approaches derived from critical political ecology, social construction of news and the cultural resonance of nature is necessary to understand the discourses surrounding environmental contestation. In his work on environmental security conflicts and resource scarcity, Timura (2001, p. 111) noted that natural resources and perceptions related to them are "inextricably entwined" within broader social, political and economic structures, and institutional and social ontological understandings.

Deconstructing the media discourse surrounding the environmental conflicts at hand allows important new understandings of, as Hansen (1991, p. 449) wrote, the geographies of the:

> dynamic and interactive elaboration of issues as they are articulated, often in parallel, of different fora of meaning creation, bearing in mind that such fora are hierarchically ordered, and the "strength" of their interlinkages varies.

Such a multi-pronged approach allows deeper explorations into how and why particular discourses dominate news or, conversely, are absent from it. For the purposes of this book, it means delineating the culturally and socially constructed conceptualizations of relations among natural resources and human societies as they are presented in the news, the dualities between rural and urban, human and non-human, development and poverty, among others. Cultural attitudes, not only toward nature but also the place of humans within natural systems, can have tremendous import for environmental politics and the narratives describing them. As Miller (2007, p. 2) wrote: "For the drama to be complete, we must cast

both nature and culture in the roles of protagonist, for each has dealt the other health and sickness, aid and harm, and life and death." Euro-centric dualistic terms have often been employed to dramatically oversimplify the human relation to nature and natural systems (e.g. Plumwood 2002) and are also "fundamental to the thinking that has brought the biosphere to its present transition toward a less habitable world" (Moore 2016, p. 2).

In order to understand the unique factors involved in the disputes over management and control of natural resources in a region that is a major source of global commodities, we examined local and regional news content and interviewed journalists, seeking to gauge how scale works to influence news. The mediated discourse that surrounds environmental debate provides an opportunity to explore how activities at local levels are articulated and reconstructed for national and international spheres. Just as local or regional environmental conflicts have linkages to global events and actors, so too are the images, ideas and discourses associated with them quickly and digitally transported around the world (Cottle 2013).

Social Constructions, Frames and Claims

Generally, the social constructionist approach seeks to understand the dynamic processes involved in developing and assigning meaning and interpretations by societies and individuals (Taylor 2000, p. 509; Tuchman 1978), as well as the battles for public attention in various claims-making arenas (Anderson 1997, pp. 32–33). We view the construction of news as a negotiation among media professionals and sources, potential and actual, in the struggle to get stories into mediated arenas, and then prevail in defining their meaning (Mazur 2009). Because environmental issues can often be complex and the effects or hallmarks of them subtle or invisible, Hansen notes (1993, p. 449), they "do not ordinarily articulate themselves." Journalists rely on scientific, technical or other experts to define issues, notes Waisbord (2002), which means that "authoritative voices" can control the story almost entirely.

The articulations of sources by issue-entrepreneurs highlight the degree to which actors from varying arenas work to capture the media narrative (Anderson 1997; Mazur 2009). We ask how, when and why online news sources are articulating the conflicts, and how that articulation represents the actual struggles on the ground. While it is well established that journalists rely on official and institutional sources, we ask who gained

entry to the mediated construction, and how those patterns changed over time, as the narrative shifted. We also ask what the predominant framing patterns were, as the battles dragged on.

Our approach encompasses three case studies of crisis surrounding natural resources and their use and management, as disparate groups seek to shape the message, win public opinion and shape policy or legal outcomes. In this book, we ask how local environmental problems or issues are channeled through political and economic elite voices to national and international arenas, as they are defined, managed and transformed in newsrooms throughout the region. To do this, we focus on three case studies of environmental crisis and contestation: the legal case surrounding the Chevron oil contamination in the Ecuadorian Amazon, the controversial Belo Monte hydroelectric dam in the Brazilian Amazon, and the Pascua Lama mining controversy in northern Chile.

Chapter 2 grounds the reader in the conceptual study of the social construction of environmental news. It also presents the methodological approach to the case studies that complete the bulk of this project. The next three chapters encompass a description of each case study, the conflict and its political, economic, social and environmental contexts. In each, we ask: How was the issue defined over time? Who was cited, and how did their legitimacy and prominence change over time? How was the issue framed, and how did those frames link to ideological discourses regarding development, national identity, sustainability and citizenship?

We look at mainstream media coverage of the Chevron oil contamination in Ecuador, the Belo Monte hydroelectric project in Brazil, and the Pascua Lama mining project in Chile. These case studies were selected because they allow important comparisons: all three garnered intense media coverage regionally, nationally and internationally; all have to do with conflict surrounding natural resource management in a time of climate change; and all involve complex layers of regional and national politics, indigenous politics, national rhetoric and international power players. However, they allow for contrast as well, as each study involves particular contextual, political, economic and social fabrics. As will be discussed in Chapter 2, the Ecuador case provides a baseline comparison, as this was our initial exploration that prompted our interest in examining other contestations in the region.

Each chapter includes the results of the content analysis of the stories carried by the media and analysis of the interviews. We first analyze regional and national daily news from news organizations with differing perspectives and strong print and online presences within each nation. We examine digital mainstream news coverage at regional and national levels of the conflicts in the three countries, and discuss the results in terms of political, cultural and social contexts.

We also analyze sources, frames, themes, actors and discursive constructions, and ask how discourses surrounding modernity, progress, culture, citizenship and identity are intertwined with messaging regarding the crisis at hand, its impacts and policy implications, how the legacy media constructed them over time, and how they reflect translations of scale at local, national and international levels. Interviews with journalists who have covered these issues, as well as with activists and others interested in influencing the media agenda, bolster and further explain results from the content analyses. We ask about the processes involved in reporting the news surrounding each conflict. In particular, we ask about source selection, story placement, editorial decisions, advertising pressures, political orientation, audience feedback, omissions, reporting constraints (data access, funding) and organizational imperatives. The responses are qualitatively analyzed for patterns regarding constructions of news, openings, closures, voices and other variables associated with news production routines.

Sources and their voices are critical to this study. From a social constructionist perspective, sourcing patterns reveal the "success" that claims-makers have had in entering public debate, as well as in their public battles for legitimacy of their definitions, proposed solutions or perspectives (Hansen 2000; Robinson 2002). From a political ecology perspective, they can also reveal the scaffolding of power relations behind the various ways in which the environment, the conflict and the associated actors are discussed and explained (Blaikie 2001).

The final chapter discusses the results in a comparative context, drawing from the approaches outlined above to emphasize the significance for scholars of an interdisciplinary and multiscale context. We provide a comprehensive and comparative view of mediated arenas of environmental conflict, as a means of providing a twenty-first-century view of a region undergoing rapid and dramatic economic, social and political change. We map these configurations as an initial first step in addressing power inequalities and disparities, in order to better understand how they have been sustained, deepened or otherwise transformed across various types of political regimes, economic

conditions and global economies. Our approach is to examine the more nuanced articulations of discourse, to discuss the institutional matrix of power in environmental conflict as a means of understanding environmental outcomes. To that end, we recognize that centuries of marginalization and environmental exploitation have had significant consequences for sectors of South American populations, as well as for the ecosystems that sustain both life in general and entire national economies. In the last pages of *Open veins of Latin America*, Galeano (1997, p. 271) recounts a hunger strike in the 1970s by families of exiled tin mine union leaders, who had been refused an amnesty by the military junta. Four women and 14 children went on a hunger strike, even as the government ordered them not to:

> "We're not asking you," [the families] said, "we're telling you. The decision has been taken. Up there at the mine, it's a permanent hunger strike. You get born, and the hunger strike starts right then and there. And that's where we have to die, too. It's slower, but we have to die, too."

As the media provide a window on and reflect these inequalities and structures, it is as important to understand how news stories are constructed, maintained or transformed as it is to know the issues themselves. We provide this book as an initial step toward that end.

REFERENCES

Anderson, A. (1997). *Media, culture and the environment*. New Brunswick, NJ: Rutgers University Press.

Bebbington, A. (2009, September). *The new extraction: Rewriting the political ecology of the Andes*. NACLA Report on the Americas. nacla.org. Accessed January 29, 2014.

Beck, U. (1992). *Risk society: Toward a new modernity*. London: SAGE.

Blaikie, P. (2001). Social nature and environmental policy in the South: Views from veranda and veld. In N. Castree & P. Braun (Eds.), *Social nature: Theory, practice and politics* (pp. 133–150). Oxford: Blackwell.

Boykoff, M. (2007). From convergence to contention: United States mass media representations of anthropogenic climate change science. *Transactions of the Institute of British Geographers, 32*(4): 477–489.

Boykoff, M. (2011). *Who speaks for the climate? Making sense of media reporting on climate change*. New York: Cambridge.

Boykoff, M., & Roberts, J. (2007). *Media coverage of climate change: Current trends, strengths, weaknesses. United Nations Development Programme.* human development report.

Bryant, R., & Bailey, S. (1997). *Third world political ecology.* New York: Routledge.

Burchardt, H. J., & Dietz, K. (2014). (Neo-)extractivism-a new challenge for development theory from Latin America. *Third World Quarterly, 35*(3): 468–486.

Carvalho, A. (2007). Ideological cultures and media discourses on scientific knowledge: Re-reading news on climate change. *Public Understanding of Science, 16*: 223–243.

Cavusgil, S. T., & Kardes, I. (2013). Brazil: Rapid development, internationalization, and middle class formation. *Revista Eletrônica de Negócios Inernacionais, 8*(1): 1–16.

Chiang-Waren, X. (2016, June 20). For environmental activists, 2015 was the deadliest year yet. http://Grist.com. http://grist.org/justice/for-environmental-activists-2015-was-the-deadliest-year-yet/. Accessed June 20, 2016.

Collier, D. (1979). Overview of the bureaucratic-authoritarian model. In D. Collier (Ed.), *The new authoritarianism in Latin America* (pp. 19–32). New York: Princeton University Press.

Cottle, S. (1998). Ulrich Beck, "risk society," and the media: A catastrophic view? *European Journal of Communication, 13*(1): 5–32.

Cottle, S. (2000). TV news, lay voices and the visualization of environmental risks. In S. Allan, B. Adam, & C. Carter (Eds.), *Environmental risks and the media* (pp. 29–44). New York: Routledge.

Cottle, S. (2006). *Mediatized conflict: Developments in media and conflict studies.* New York: Open University Press.

Cottle, S. (2013). Environmental conflict in a global, media age: Beyond dualisms. In L. Lester & B. Hutchins (Eds.), *Environmental conflict and the media* (pp. 19–33). New York: Peter Lang.

Di Filippo, A. (2009). Estructuralismo latinoamericano y teoría económica. *Revista CEPAL, 98.* http://www.cepal.org/es/publicaciones/11303-estructuralismo-latinoamericano-y-teoria-economica. Accessed May 5, 2016.

Diamond, L., Hartlyn, J., & Linz, J. (1999). Politics, society and democracy in Latin America. In L. Diamond, J. Hartlyn, J. Linz, & S. Lipset (Eds.), *Democracy in developing countries: Latin America* (2nd ed., pp. 1–70). Boulder: Lynne Rienner.

Diaz-Nosty, B. (2009). Cambio climático, consenso científico y construcción mediática: Los paradigmas de la comunicación para la sostenibilidad. *Revista Latina de Comunicación Social, 64*: 99–119.

Dotson, D. M., Jacobson, S. K., Lee Kaid, L. L., & Carlton, J. S. (2012). Media coverage of climate change in Chile: A content analysis of conservative and liberal newspapers. *Environmental Communication: A Journal of Nature and Culture, 6*(1): 64–81.

Dunwoody, S., & Griffin, R. (1993). Journalistic strategies for reporting long-term environmental issues: A case study of three Superfund sites. In A. Hansen (Ed.), *The mass media and environmental issues* (pp. 22–50). Leicester University.

Forsyth, T. (2003). *Critical political ecology: The politics of environmental science.* New York: Routledge.

Galeano, E. (1997). *Open veins of Latin America: Five centuries of the pillage of a continent.* New York: New York University Press.

Gao, G. (2015, July 20). Latin America's middle class grows, but in some regions more than others. *Pew Research Center.* http://www.pewresearch.org/fact-tank/2015/07/20/latin-americas-middle-class-grows-but-in-some-regions-more-than-others/. Accessed May 9, 2016.

Greenberg, M. R., Sachsman, D. B., Sandman, P. M., & Salomone, K. L. (1989). Network evening news coverage of environmental risk. *Risk Analysis*, *9*(1): 119–126.

Grugel, J., & Riggirozzi, P. (2012). Post-neoliberalism in Latin America: Rebuilding and reclaiming the state after crisis. *Development and Change*, *43*(1): 1–21.

Gudynas, E. (2010, January 21). *The new extractivism of the 21st century: Ten urgent theses about extractivism in relation to current South American progressivism.* Americas Program Report, Americas Policy Program. www.americaspolicy.org. Accessed January 29, 2014.

Guedes, O. (2000). Environmental issues in the Brazilian p. *International Communication Gazette*, *62*(6): 537–554.

Haarstad, H., & Floysand, A. (2007). Globalization and the power of rescaled narratives: A case of opposition to mining in Tambogrande, Peru. *Political Geography*, *26*: 289–308.

Hallin, D., & Papathanassopoulos, S. (2002). Political clientelism and the media: Southern Europe and Latin America in comparative perspective. *Media, Culture, & Society*, *24*(2): 175–195.

Hansen, A. (1991). The media and the social construction of the environment. *Media, Culture & Society*, *13*: 443–458.

Hansen, A. (Ed.). (1993). *The mass media and environmental issues.* Leicester: Leicester University Press.

Hansen, A. (2000). Claims-making and framing in British newspaper coverage of the "Brent Spar" Controversy. In S. Allan, B. Adam, & C. Carter (Eds.), *Environmental risks and the media* (pp. 55–72). London: Routledge.

Hansen, A. (2011). Communication, media and environment: Towards reconnecting research on the production, content and social implications of environmental communication. *International Communication Gazette*, *73*(1–2): 7–25.

Harlow, S. (2012). A political boss and the press: The impact on democracy of two Brazilian newspapers. *Journalism*, *13*: 340–353.

Harrup, A. (2016, April 12). South America suffers from end of commodity boom. *The Wall Street Journal.* http://www.wsj.com/articles/south-america-suffers-from-end-of-commodities-boom-1460487125. Accessed May 9, 2016.

Hughes, S., & Lawson, C. (2005). The barriers to media opening in Latin America. *Political Communication*, *22*: 9–25.

Jukofsky, D. (2000). El periodismo ambiental: Un especie en extincion. *Chasqui, 70–74.*

Lester, L. (2010). *Media and environment.* Cambridge: Polity.

Lester, L., & Hutchins, B. (Eds.). (2013). *Environmental conflict and the media.* New York: Peter Lang.

Lipschultz, R. (2004). *Global environmental politics: Power, perspectives and practice.* Washington, DC: CQ Press.

Liverman, D., & Vilas, S. (2006). Neoliberalism and the environment in Latin America. *Annual Review of Environment Resources*, *31*: 327–363.

Llana, S. (2007, March 27). Bolivia's vice president on indigenous rights, coca crops, and relations with the US. *Christian Science Monitor.* http://www.csmonitor.com/2007/0327/p12s02-woam.html?page=3. Accessed January 31, 2014).

Lowe, P., & Morrison, D. (1984). Bad news or good news: Environmental politics and the mass media. *Sociological Review*, *32*(1): 75–90.

Lowery-Evans, B. (2013, May 3). Images from the Amazon at the Belo Monte protest. *International Rivers.* http://www.internationalrivers.org/blogs/244/images-from-the-amazon-at-the-belo-monte-protest. Accessed February 3, 2014.

Massarani, L., Buys, B., Amorim, L., & Veneu, F. (2005). Science journalism in Latin America: A case study of seven newspapers in the region. *Journal of Science Communication*, *4*(3): 1–8.

Massarani, L., & Buys, B. (2007). Science in the press in nine Latin American countries. *Brazilian Journalism Research*, *3*: 77–96.

Mazur, A. (2009). American generation of environmental warnings: Avian influenza and global warming. *Research in Human Ecology*, *16*(1): 17–26.

Mellado, C., Moreira, S., Lagos, C., & Hernández, M. (2012). Comparing journalism cultures in Latin America: The case of Chile, Brazil & Mexico. *International Communication Gazette*, *74*: 60–79.

Mercado, M. (2012). Media representations of climate change in the Argentinian Press. *Journalism Studies*, *13*(2): 193–209.

Miller, N. (2009). *Environmental politics: Stakeholders, interests and policymaking* (2nd ed.). New York: Routledge.

Miller, S. (2007). *An environmental history of Latin America.* New York: Cambridge.

Moore, J. (Ed.). (2016). *Anthropocene or Capitalocene? Nature, history and the crisis of capitalism.* Dexter, MI: Kairos.

Murdock, G., Petts, J., & Horlick-Jones, T. (2003). After amplification: Rethinking the role of the media in risk communication. In N. Pidgeon, R. Kasperson, & P. Slovic (Eds.), *The social amplification of risk* (pp. 156–178). Cambridge: Cambridge University Press.

Nauman, T. (2005, April 13). *Mexican right-to-know boosters should build bridges to environmental disclosure law*. IRC Americas Program Discussion Paper. americaspolicy.org. Accessed September 28, 2013.

Pereira De Silva, P., & Rothman, F. (2011). Press representations of social movements: Brazilian resistance to the Candonga hydroelectric dam. *Journal of Latin American Studies*, *43*: 725–754.

Petras, J., & Veltmeyer, H. (2014). *Extractive imperialism in the Americas: Capitalism's new frontier*. Boston: Brill.

Pinto, J. (2008). Muzzling the watchdog: The case of disappearing watchdog journalism from Argentine mainstream news. *Journalism*, *9*(6): 750–774.

Pinto, J. (2012). Legislating 'rights for nature' in Ecuador: The mediated social construction of human/nature dualisms. In A. Latta & H. Wittman (Eds.), *Environment and citizenship in Latin America: Natures, subjects and struggles* (pp. 227–242). New York: Berghahn Books.

Plumwood, V. (2002). *Feminism and the mastery of nature*. London: Routledge.

Porto, M. (2007). TV news and political change in Brazil: The impact of democratization on TV Globo's journalism. *Journalism*, *8*(4): 363–384.

Prada, P. (2012, August 3). Special report: Brazil backslides on protecting the Amazon. *Reuters*. http://www.reuters.com/article/2012/08/03/us-brazil-environment-backslide-idUSBRE8720GP20120803. Accessed February 3, 2014.

Reis, R. (2008). How Brazilian and North American newspapers frame the stem cell debate. *Science Communication*, *29*(3): 316–334.

Robbins, P. (2004). *Political ecology*. Malden, MA: Blackwell.

Roberts, K. (2002). Social inequalities without class cleavages in Latin America's neoliberal era. *Studies in Comparative International Development*, *36*(4): 3–33.

Robinson, E. E. (2002). Community frame analysis in love canal: Understanding messages in a contaminated community. *Sociological Spectrum*, *22*: 139–169.

Roser-Renouf, C., & Nisbet, M. (2008). The measure of key behavioral science constructs in climate change research. *International Journal of Sustainability Communication*, *3*: 37–95.

Schamis, H. (1991). Reconceptualizing Latin American authoritarianism in the 1970s: From bureaucratic authoritarianism to neoconservatism. *Comparative Politics*, *23*(2): 201–220.

Sood, R., Stockdale, G., & Rogers, E. M. (1987). How the news media operate in natural disasters. *Journal of Communication*, *37*: 27–41.

Stetson, G. (2012). Oil politics and indigenous resistance in the peruvian amazon the rhetoric of modernity against the reality of coloniality. *The Journal of Environment & Development*, *21*(1), 76–97.

Svampa, M. (2013). Resource extractivism and alternatives: Latin American perspectives on development. In M. Lang & D. Mokrani (Eds.), *Beyond development: Alternative visions from Latin America* (pp. 117–144). Quito: Fundacion Rosa Luxemburg.

Székely, M., & Mendoza, P. (2016). Declining inequality in Latin America: Structural shift or temporary phenomenon? *Oxford Development Studies*. doi: 10.1080/13600818.2016.1140134.

Takach, G. (2013). Selling nature in a resource-based economy: Romantic/extractive gazes and Alberta's bituminous sands. *Environmental Communication*, *7*(2): 211–230.

Takahashi, B. (2011). Framing and sources: A study of mass media coverage of climate change during the V ALCUE. *Public Understanding of Science*, *20*(4): 543–557.

Taylor, D. E. (2000). The rise of the environmental justice paradigm: Injustice framing and the social construction of environmental discourses. *The American Behavioral Scientist*, *43*(4): 508–580.

Timura, C. (2001). "Environmental conflict" and the social life of environmental security discourse. *Anthropology Quarterly*, *74*(3): 104–113.

Trumbo, C. (1996). Constructing climate change: Claims and frames in US news coverage of an environmental issue. *Public Understanding of Science*, *5*: 269–283.

Tuchman, G. (1978). *Making news*. New York: Free Press.

Veltmeyer, H. (2012). The natural resource dynamics of postneoliberalism in Latin America: New developmentalism or extractivist imperialism? *Studies in Political Economy*, *90*(1): 57–85.

Waisbord, S. (2000). *Watchdog reporting in South America: News, accountability and democracy*. New York: Columbia University Press.

Waisbord, S. (2002). Journalism, risk and patriotism. In B. Zelizer & S. Allen (Eds.), *Journalism after September 11* (pp. 201–220). London: Routledge.

Waisbord, S. (2010). Latin America. In P. Norris (Ed.), *Public sentinel: News media and governance reform* (pp. 305–328). Washington: World Bank.

Waisbord, S. (2013). Contesting extractivism: Media and environmental citizenship in Latin America. In L. Lester & B. Hutchins (Eds.), *Media and environmental conflict* (pp. 105–124). New York: Peter Lang.

Waisbord, S., & Peruzzotti, E. (2009). The environmental story that wasn't: Advocacy, journalism & the *asambleismo* movement in Argentina. *Media, Culture & Society*, *31*(4): 691–709.

Waisman, C. (2006). Autonomy, self-regulation and democracy: Tocquevillean-Gellnerian perspectives on civil society and the bifurcated state in Latin America. In R. Feinberg, C. Waisman, & L. Zamosc (Eds.), *Civil society and democracy in Latin America* (pp. 17–34). New York: Palgrave.

World Bank. (2014a). Latin America: Middle class hits historic high. http://www.worldbank.org/en/news/feature/2012/11/13/crecimiento-clase-media-america-latina. Accessed February 3, 2014.

World Bank. (2014b). GDP Growth. http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG. Accessed January 31, 2014.

Yates, J., & Bakker, K. (2014). Debating the "post-neoliberal turn" in Latin America. *Progress in Human Geography*, *38*(1): 62–90. doi:10.1177/0309132513500372.

Zamith, R., Pinto, J., & Villar, M. (2013). Constructing climate change in the Americas: An analysis of U.S. and South American newspapers. *Science Communication*, *35*(3): 334–357.

News, Conflict and Environment as Social Constructions

We begin with the perspective that news is a social construction. As such, it mirrors as well as being shaped by the dynamic processes and struggles to become primary definers, frame issues, amplify or silence voices and otherwise shape the mediated arena (e.g. Bennett 1996; Carvalho 2007; Gamson et al., 1992; Gitlin 1980; Hansen 1991, 1993; Anderson 1997; Lester and Hutchins 2013; Schudson 1997; Tuchman 1978). Actors battle for control of the narrative, and the results of these battles are negotiated with newsrooms, resulting in content that can not only impact public opinion but also policy outcomes and political institutions. As Hall noted, journalists endeavor to reproduce what they have delineated as reality via the "active work of selecting and presenting, of structuring and shaping; not merely the transmitting of an already-existing meaning, but the more active labor of making things mean" (1982, p. 64). Pompper (2004, p. 102) noted that "news is characterized as a value-laden, manu-factured, social construction shaped by complex subjective processes."

Such functions of media take on special import when the heuristic bridge is extended to impacts on public opinion and policy. Decades of research into the triangulations among public, media and political agendas has supported Cohen's (1963, p. 13) famous statement that media "may not be successful much of the time in telling people what to think, but it is stunningly successful in telling its readers what to think about." Social constructionism then, examines the struggles for meaning-making and

issue definition, the processes of the narrative constructions and deconstructions, and the factors impacting those processes and struggles as events unfold. The implications are not insignificant, as the news media are important informational fora for mass publics and serve to build public opinion, and impact policy outcomes and institutional change (Castells 2008; Curran 1991; Habermas 1989; Hallin and Mancini 2004). Classic Habermasian (1989) notions of the media as democratic public spheres where public opinion is shaped and civic interests are expressed allow for individuals in mass societies to use their powers of agency to formulate and affect state governance. This conceptual construct—not without criticism (e.g. Calhoun 1992; Fraser 1990)—nevertheless allows for analysis of media performance in democratic societies as public spheres react to market pressures and state encroachment. Newer iterations move the public sphere debate from national lines to global civic spaces, as networked societies scale up the dialogues (Castells 1998). The construct also serves to allow researchers to examine the degree to which publics are given critical information from diverse perspectives, how well media are holding governments accountable to their constituents, and whether civic interests are being promoted, whether civil society is being adequately served by its institutions, and the degree to which critical debate fosters strong institutions (Waisbord 2009).

These interfaces resonate in Latin America and beyond, where every nation is grappling with impacts wrought by accelerating climate change (IPCC 2014). In particular, there is urgency for developing nations, which are often the most vulnerable to the effects of climate change, and whose populations face ongoing environmental degradation (Magrin et al. 2007). Indeed, in recent years, rates of natural resource extraction have risen sharply, something Waisbord (2013b) attributes to neoliberal policies favoring foreign investment in extractive industries, weak environmental regulation and little transparency or public participation in policy decisions, particularly in the awarding of concessions to private industry. This latest extractivist boom, however, is only the most recent upswing in centuries-long cycles of commodity extraction and exploitation, with the latest iterations including mining, forestry, agriculture, and oil and gas drilling for global export. Harnessing economic and political power by exploiting natural resources clashes with urgent calls for increased conservation and more transparent management and accountability measures. Public opinion polls demonstrate increasing concern over global warming (Pew 2007). Yet official action demonstrates little elite political or

economic will to reverse the extractivist processes that have maintained national economies for centuries, and, as we will discuss, media coverage does little to reflect or address that concern.

Normative democratic theory posits that democratic institutions and independent media systems facilitate a robust public sphere. In terms of environmental quality, research has found that democratic systems also encourage stronger environmental institutions and accountability (Neumayer 2002; Newall 2008; Payner 1995). As countries in Latin America emerged from authoritarian dictatorships towards the end of the twentieth century, more of those media systems became commercially funded, as administrations adopted neoliberal policies, opening up private sectors and welcoming foreign investment into national economies. In terms of cultivating citizenship, in various instances Latin American media have contributed positively to civic interests. They facilitated mobilizations in civil society during political elections or times of unrest in a number of cases (Hughes 2006; Hughes and Lawson 2005; Lawson 2002). Strong investigative reporting exposed countless scandals to publics throughout the region and democratic deepening moved some media outlets away from tabloidization and partisanship (Porto 2007; Waisbord 2000). Civic-oriented media championed the call for a return to democracy in Mexico, eventually resulting in the democratic presidential election of 2000 (Hughes 2006; Lawson 2002).

Even as democratic institutions remain in force across the region, structural and institutional arrangements in Latin America political and economic systems have facilitated the unevenness of the quality of public spheres to promote civic interests and official accountability, and reflect the varying configurations of commercial, political and civic principles that media organizations hold. Many mainstream media remain, as Waisbord (1999, p. 50) wrote, "between the rock of the state and the hard place of the market." Complex and intertwined relations among media, states and markets impact levels of press freedom, and are complicated by political and economic instability; uneven journalistic professionalization; oligarchic and increasingly concentrated ownership patterns; increasing attacks against journalists, often with impunity for the attackers; collusion among media owners, business officials and state actors; the demands of advertisers; punitive legal environments; and lack of access to public information (de Cardona Fox 2002; Hallin & Mancini 2004; Harlow 2012; Hughes 2006; Hughes and Lawson 2005; Pinto 2008; Porto 2007; Waisbord 2000).

What Waisbord (2013b, p. 155) calls "media patrimonialism" reflects the particularly complex media–state relations in the region, as elsewhere:

> Patronage dynamics characterize structural relations between governments and news organizations, as well as between officials and reporters. . . . Media patrimonialism is characterized by discretionary decision-making by politicians who use public goods to reward loyalists and punish opponents in the press.

Such patrimonialist apparatuses and relations have been widely documented by scholars across academic disciplines, including anthropologists, geographers, political scientists and others observing extractivist economies and activities, the decision-making process for granting concessions to foreign extractors, and ensuing environmental degradation. Media studies, too, has a role to play in studying news constructions of environmental conflict. Conflicts, as they are socially developed and involve emerging narratives, also have myriad dimensions that must be examined, as scholars seek to understand "the complexities of situations in which mutually independent parties struggle to cope with their incompatible interests" (Brummans et al. 2008, p. 25). We define environmental conflicts, broadly, as having to do with tensions regarding choices over using natural resources and the natural environment, and their protection. Conflicts translate into ecological winners and losers, as costs and benefits are distributed among actors unequally and it is important to deconstruct disparate values and attitudes societal groups have regarding those resources, as stakeholders' investments in the outcome, potential harms, benefits and uncertainty relate to various facets of the issues (Bryant and Bailey 1997, pp. 28–29; Crowfoot and Wondeleck 1990; Opotow and Weiss 2000, pp. 475–477).

Borrowing from political ecology can inform our analysis and bring about a better understanding of social constructions of news coverage of environmental conflict over the use of natural systems. From this view, environmental transformations are inextricably linked with political economies and society, and environmental conditions are the product of political process (Bryant and Bailey 1997; Peet and Watts 1996; Watts 2000). News as socially produced parallels various components of the political ecology tradition, as both seek to understand concepts of differential power, hegemony, knowledge, development, governance, scale and modernization in

discourse surrounding environmental issues. Latent dimensions of race, gender and class are also important to understand in the reconfiguring narratives.

Scale is particularly important, and the "politics of scale" and transforming scalar arrangements are understood to be socially constructed (Brown and Purcell 2005; Bulkley 2005; Marston 2004; Marston and Smith 2001). As Henne and Gabrielson (2012, p. 155) wrote:

> Questions of scale are critical to understanding the discursive framing of environmental problems and solutions, the mobilization and counter-mobilization of constituencies and the construction and adoption of political strategies by various parties to environmental conflict.

Environmental problems are experienced at the local level, but political reactions and solutions to the issue are often located at a different scale. Discursive practices surrounding these scalar arrangements can invoke "scale frames," serving to include or exclude, to silence and marginalize, or to reverberate and expand movements or reap political consequences (Hempel 1996; Henne and Gabrielson 2012, p. 156; Kurtz 2003). Such frames are often linked to processes of racialization (Sundberg 2012). Indeed, according to Robbins (2004, p.175):

> postcolonial analysis of history has demonstrated the way that development and environmental management initiatives, no matter how well intended, tend to be based on assumptions that are classed, gendered and raced.

These differentiated processes present intense difficulties for affected populations, including differential treatment and support, access to decision-makers, planners and donors, or autonomy to plan and become resilient. As van Dijk (2009, p. 10) wrote, "the most blatantly racist discourses that remain are those about the indigenous peoples, especially where these form large minorities or majorities." And it is precisely these groups who are often the citizens who are impacted the most, as their communities are located in areas of rich natural resources, far from the political and economic power centers.

In the twentieth century, struggles to reclassify long-standing conceptualizations of race, gender and class challenged social authority, and discourses surrounding modernization, development and nation-building

became important in understanding how these social demarcations affect environmental formations. As Sundberg (2008, p. 577) asked:

> What does the changing place of race in organizing citizenship in Latin American societies mean for struggles over resources? Who is deemed expendable for the sake of development and why? How are perceived differences in environmental practices used to promote or further social and environmental exclusions? Conversely, how are they used to make claims for inclusion?

One answer was that racialization processes are inherently linked to natural resource distribution, land use management, access to healthy environmental formations, exposure to hazards, and access to and voice in environmental policy processes (Sundberg 2008, p. 579). Deconstructions of development discourses regarding populations who, in response to political and economic pressures engage in activities that worsen environmental degradation, for example, can be studied in order to look at the hegemonic dimensions (Stott and Sullivan 2000).

Therefore, political ecology analyses can lend themselves well to understanding mediated discourses, as scholars seek to understand the overt and latent dimensions of discourse surrounding environmental conflict. How these constructions are formulated allows deeper understandings of the connections between socio-institutional interactions, powerful actors, privileged narratives, political decision-making processes and bureaucratic structuring that have shaped and guided change to mediated content concerning environmental conflicts over time (Forsyth 2003; Barton and Floysand 2010).

Political ecology analyses often focus on development discourses and their reconfigurations throughout time. Gudynas (2009) sees neo-extractivism as the latest incarnation of development discourse, something historically evolved from modernization theories, and proposes that nature and natural resources are the key to development and well-being. Indeed, political ecologists see how the formation of state power arose in the "right place[s] at the right time," as global capitalist networks developed and required an actor such as a state to provide public goods and common currencies (Bryant and Bailey 1997, p. 53). Such logics of coloniality and modernity manifested in elite opinion and discourse over the centuries (Stetson 2012), but how are those words translated by regional and national media, how do they reflect or shape power relations, and what

are the implications for journalism in the region? Critical political ecology theory here provides an important route to mapping the development and means that social actors have employed to affect current outcomes and structures, in terms of environmental change (Barton and Floysand 2010). Central to this conceptual framework are issues of power and hegemony in discourse, interactions and social relations. As Islam (2007, p. 142) noted in his study of deforestation in Bangladesh, ignoring power inequalities in discourse then obfuscates the realities of environmental shifts and the domination of certain narratives over others:

> Stories representing realities are generally narrated or shaped by the power of politics and capital; parties which would not then be best pleased with alternative realities being narrated and substantiated, which differ from their own.

SOCIALLY CONSTRUCTED NEWS AND ENVIRONMENTAL CONFLICTS

In taking a media-centric approach to understand conflict discourse, we also borrow from the rich history of research studying variables that affect news production in a comparative context (e.g. Carvalho & Burgess 2005; Hanitzsch et al. 2010; Reese 2001; Shoemaker and Reese 1996; Shoemaker and Vos 2009; Shoemaker et al. 2001; Voakes 1997; Waisbord 2000; Weaver 2007). We focus on journalistic role performance, including indexing, framing and source selection, as well as surveying organizational cultures and ideologies, political and economic systemic pressures, and individual belief systems and professional orientations. Such a multilayered approach helps in understanding the narrative over time, and provides for richer data, deeper context and, ultimately, more comprehensive understanding of newsroom decisions.

Perceptions of what constitutes "the environment" and our relations to it and with it can impact perceived salience of environmental issues. As environmental belief systems and ideologies impact attitudes and behaviors, issues relating to the natural world can lie along varying scales of importance, value, worth or necessity. Emphases applied to social understandings of nature can lie along a continuum of anthropogenic to eco- or bio-centric, with the former being the dominant utilitarian view of natural systems that must be used to be sustained, and the latter meaning a view of

nature as worthy without human intervention, and humans as part of it (Corbett 2006). How audiences and news-makers perceive nature and environmental systems has implications for news production.

Individual performances and orientations scale up to structural levels, as highly commercialized and increasingly concentrated media companies focus on market forces rather than civic interests. Lester (2010) noted the vulnerability of media companies to powerful interests and profit margins, as news companies have been forced to reduce staff and therefore have less ability to cover issues such as environmental conflict in depth. However, she adds, earlier studies of coverage of environmental issues in South America found that it had not kept pace with other areas, such as coverage of crime or the economy, even though most Latin American economies are highly dependent on the exploitation of natural resources (Hansen 1993). Famously, Herman and Chomsky's (1988, p. 1) discussion of the mass media's propaganda function of integrating individuals into "a world of concentrated wealth and major conflicts of class interest" focused on the problems of highly concentrated ownership and profit-driven decision-making for quality news production.

Organizational structures and limitations may also impact production. Given transformations in news media business models and platforms, reductions across industries globally have meant disruptions in beat reporting. However, beat reporting in Latin American newsrooms can mean particular challenges, such as poor access to public information or databases, violence against journalists who do report on environmental contamination, impunity for corporate or official wrongdoing, little time and no extra resources to devote to investigative reporting (Nauman 2003). Waisbord and Peruzzotti (2009, p. 702) wrote of Argentina that "none of the major news organizations have sections devoted to environmental news."

Journalism as a profession lends itself to study of both the expectations of what it should be, along with the practices that result in content (Hanitzsch 2007; Schudson 1989). Hanitzsch (2007, p. 369) conceptualized journalistic professional roles as particular skills and knowledge sets that delineate them from other societal sectors and give them value and meaning. This builds on Bourdieu's (1991) field theory, which stipulated that modern societal organizations involve spheres of specialized human activities. In journalism, professional and organizational journalistic norms, routines and standards can function to privilege the

legitimacy of one narrative over another, and increase or decrease public recognition of the issue, actor, risk or hazard (Bennett et al. 2004; Boykoff & Boykoff 2004; Shoemaker and Reese 1996). The strength of the influence of professional norms on news has not always been observed to be significant, however (Weaver and Wilhoit 1996).

While there is much discussion regarding conceptualizations of journalistic professionalization in a globalized world (see Waisbord 2013a for a comprehensive overview), Mellado (2015, p. 602) provides a useful tool to connect journalistic performance with newsroom decision making and empirically measure the degree to which journalistic role performance is an outcome of professional negotiations. Here, journalistic voice, and the relations they hold with power actors as well as with audiences, can be observed to varying degrees.

In terms of the evaluative conceptualizations versus the practice, U.S. journalistic reliance on finding opposing views to find "balance"; and increased prioritization on emphasizing drama, polarization, conflict, novelty or personalization, have been cited as negatively impacting the quality of climate change news coverage in the U.S.A. (e.g. Anderson 1997; Boykoff 2011; Boykoff and Boykoff 2007; Brossard et al. 2004; Hansen 1993; Lester 2010; Sachsman et al. 2005). Reactive and event-centered journalism has also meant cycles of attention to such issues, rather than consistent coverage. Djerf-Pierre (2012, p. 505), returning to Down's (1972) issue attention cycle theory, found that Swedish media's attention to environmental issues over 40 years largely focused on cata strophes, scandals, alarms and controversies, and reflects an institutionalization of newsroom evaluations of environmental content. Within the realm of news values, novelty and controversy have been found to apply to environmental issues as much as others, such as impact and immediacy (Friedman et al. 1999; Hansen 1993; Lester & Hutchins 2012).

Indexing

One such routine that has received broad scholarly attention is the well-documented journalistic reliance on official sources and channels which populates content with elite definitions and terms (e.g. Bennett 1990; Bennett et al. 2004; Brown et al. 1989; Curran 1991; Entman 2004; Gans 1979; Hallin 1986, 1994; Hallin et al. 1993; Sigal 1973; Zoch and Turk 1998). Bennett's indexing hypothesis posits that journalists confine their news coverage and restrict source access according to the actual

degree of elite consensus or debate among established interests (Bennett 1990). Related to gatekeeping, indexing involves allowing access to news according to cues from elite actors, particularly in the case of foreign policy, national security and defense (Hallin et al. 1993; Dickson 1992; Kim 2000). As Bennett (2003, p. 4) explains, the practice generally involves:

> closing the news gates to citizen activists (and more generally, a broad range of views) depending on levels of conflict or political difference among public officials and established interests with the capacity to influence decisions about the issue in question.

Exceptions may include cases of breaking news, crisis, dramatic scandals involving elites or when civil society voices gain access via public relations strategies (Bennett 2003, p. 4). The hypothesis is a useful concept for understanding newsroom production in comparative context, as we are undertaking here, as well as providing linkages to political structuring, news sourcing patterns and influences in the national media ecosystem. In their study of German and U.S. news coverage after the Fukushima nuclear disaster, Park et al. (2015) found while the news in both the U.S.A. and Germany indexed itself to political debate, the news in those two countries differed significantly in coverage of sustainability, consumption and energy sources, as diverse political parties debated those issues in Germany, but not in the U.S.A. In another study, Shehata and Hopman (2012) observed that international actors had more of an influence on climate change news frames than did national actors.

Framing

Indeed, as debate around environmental issues becomes increasingly politicized and fractious, how such issues are packaged and presented to audiences has special import. Framing theory, straddling various disciplines, deals with all aspects of communication, from how journalists organize news articles around central axes to create coherent contexts, to how audiences unpack those frames to comprehend and reproduce the issues (Nisbet 2009; Pompper 2004). As Tuchman wrote, frames "are public documents that lay a world before us" (Tuchman 1978, p. 97). Frames present information in such a way that audiences readily may infer

meanings and "what the story is about" from language choice (Entman 1993; Gamson and Modigliani 1989; Gitlin 1980; Graber 1989; Tuchman 1978). Dunwoody and Griffin (1993, p. 24) note that frames employed by journalists in a variety of U.S. media employ "similar mental maps, and thus, produce stories that reconstitute the world in similar ways."

Journalists and other narrative constructors consciously and unconsciously report certain perspectives while ignoring others, with the end result of promoting a particular perceived reality and making it more salient to the public (Entman 1993, p. 52). There is tremendous pressure to gain access to mediated arenas, as those whose voices are heard in the news are more likely to succeed in the struggle to dominate the narrative, define the issue parameters and prevail in establishing the legitimacy of their point of view. Therefore, sources and other "frame sponsors" work to be selected as voices that represent legitimate and authoritative perspectives in constructing issue frames (Pan and Kosicki 1993). Such sponsorship may happen on the part of the journalist as she develops her own construction of an event, or through the journalist as she utilizes the constructions uttered by others to report on an event (Van Gorp 2007, p. 68). The latter scenario may be linked to news production routines. Manheim (1998, p. 96) suggested that journalists frequently rely on frame sponsors who:

> strive systematically to ensure, insofar as possible, that the work product of journalism reflects events and an environment, and creates a reality, which they, and not the journalists, define.

Entman (2004, p. 9–22) describes this process of frame translation and activation in his model of cascading activation. Here, high-level political actors release information organized strategically to privilege their narrative. This can be contested or maintained by journalists, or repackaged into their own strategic frames. Such activation was seen in the Eide and Ytterstad (2011) study of Norwegian media coverage of the Bali Climate Summit, as news coverage was activated by political actors' frame packages.

Framing provides clarity on shifting narratives in environmental conflicts, often protracted and dynamic processes that pit communities, neighbors, businesses or government entities against others in long-lasting

battles. Lewicki et al. (2003, p. 5) termed these types of conflicts "intractable" and discussed the importance of frames in this context:

> For intractable conflicts in particular, even though actors change, contexts transform, and the arenas in which dispute episodes are staged shift, the conflict persists. Our data also suggest that framing has much more to do with this intransigence and that shifts in frames can make a conflict more or less intractable.

Culture and Ideology

Culture and ideology conceptual constructs provide fascinating avenues of exploration into the social construction of news, and are deeply intertwined not only in the production of environmental discourses but also audience reception of them. As Boykoff (2009, p. 167) wrote, "[t]he cultural politics of climate change are situated—power-laden, media-led and recursive—in an ongoing battlefield of knowledge and interpretation." These sets of attitudes and beliefs, and their connections to value systems that dictate normative views are central to socially constructed news. Carvalho (2007, p. 223) noted that media evaluations of scientific claims are "strongly entangled" with ideological viewpoints, as "facts" and "experts" were assessed in value-laden, normative or political terms. Guzmán (2006, p. 282) agreed that news was "an ideological construction of reality."

Ideological constructions have deep roots that extend back centuries, even millennia, as humans struggled to define their relationship with the natural world. All environmental messaging is influenced by individual experiences, geographies, histories and cultures (Corbett 2006, p. 6). Ideological understandings of "nature" in the U.S.A. after European colonization were reconfigured and transformed, as natural resource systems were given an entirely functional utility and largely viewed as a "storehouse of commodities, there for the taking" (Corbett 2006, p. 22). Indeed, Miller (2007) contrasts Native American and European conquistadors' views of natural systems and commodities in terms of utility, property, exploitation, consumption and sustainability as vastly different in some respects; for Europeans, "[a]bove all else, humans want to know nature's utility" (2007, p. 67). Others have studied communication regarding the environment in relation to ideological constructions of the utility of the environment under capitalism and neoliberalism

(Cottle 2006; Couldry 2010). Such ideological expression was evident in Ecuadorian media when a constitutional referendum to give rights to natural systems moved forward, eventually passing. News and opinion painted this switch from nature as property to nature as an entity with legal standing in sharply dualistic terms, such as reason/emotion and civilized/primitive (Pinto 2012). In capitalistic societies, Moore (2016, p. 5) argues, we have not just entered the Anthropocene, but rather the "Capitalocene," as dualist framings of nature and society entail the violence, oppression and exclusion of modern capitalistic societies.

News production structurations also privilege ideology, as Cottle (2006) discusses, and parallel the indexing hypothesis findings that elite actors are over-relied upon and given privileged access to mediated spheres. Pressure from multiple daily deadlines, and journalists' reliance on the professional norms of balance, impartiality and objectivity, gives elite actors within institutions and organizations a structure that delivers "privileged and routine entry into the news itself and to the manner of its production" (quoted in Cottle, p. 124). This has resulted in over-reliance on quotes from political and economic heavyweights, and increasingly from powerful and large NGOs that are linked to environmental causes.

Comparative research of an issue so global in scope and nature also provides an opportunity to examine cultural nuances relating to collective orientations of human relations to natural systems as well as journalistic practices in different media systems (Brossard et al. 2004). Media systems in South America historically developed from two press traditions: that of the European partisan media linked directly to distinct political actors and the so-called neutral, objective style of U.S. independent, commercial media (Waisbord 1999, 2000). These models have fluctuated, with one presenting more distinctly than the other at times. During much of the first half of the twentieth century, South American media featured prominent partisan ties, but in the latter half, shifts to neoliberal policies moved media toward more commercial orientations that Waisbord (2010) has called "market-powerful." However, in some cases economic and political instability and fluctuations provided an occasion to observe the power of the state to influence media performance.

Although some have argued that coverage of environmental, science and technology in the region is on the rise (Massarani et al. 2005; Massarani and Buys 2007; Mellado et al. 2012) others have noted a paucity in the time and space devoted to environmental and scientific affairs.

Particularly in terms of climate change, this has been found to be supported across Latin America, as well as within U.S. Spanish-language media (Gordon et al. 2010; Kitzberger and Pérez 2008; Pinto and Vigon 2014; Takahashi and Meisner 2013; Takahashi et al. 2015; Villar and Pinto 2013; Zamith et al. 2013). When the topic is covered, studies have critiqued news as being superficial, focused on the short-term crisis at hand, reliant on official sources rather than scientists, largely taken from wire services, and lacking in statement of agency for audiences (e.g. Boykoff and Roberts 2007; Carabaza González 2007; González et al. 2007; Encalada 2001; Reis 1999; Takahashi and Meisner 2013).

However, within that coverage, nuances do exist and are worth exploring. One observed trend is that Latin American media, along with other non-U.S. media systems, tend to frame climate change in terms of international relations. Mexican media focus on international treaties as the solution to climate change (Gordon et al. 2010, p. 165). In her study of Argentine coverage, Mercado (2012) found that climate change was viewed in terms of international conflict between developed and developing nations. Similarly, Waisbord and Peruzzoti (2009) studied environmental conflict in Argentine news and found it to be increasingly covered along nationalistic lines. Peruvian press coverage of a major climate change conference framed it as political strategy (Takahashi 2011); Chilean coverage of climate change varied according to organizational ideology but favored government themes and sources (Dotson et al. 2012). Brazilian newspapers covered climate change more than their counterparts in the region and framed it in economic and political terms (Zamith et al. 2013). In Ecuador, coverage of an oil spill in the Galápagos Islands was largely framed as a political conflict, as local governments battled with the national government over clean-up costs (Encalada 2001).

Another trend is an observed disconnect between the salience of climate change and environmental news for the news professionals, and their actual coverage of it. For example, in interviews with reporters and editors in Mexico and with U.S.-based Hispanic media professionals, many said that the environment as a beat was important and should be covered more but wasn't because of lack of interest on the part of audiences and gatekeeping within organizations (Takahashi et al. 2015). The same was true for Mexican reporters, who considered global warming important, but not "the most important" topic (Gordon et al. 2010, p. 165).

Methods

Our approach to understand the variables influencing news production regarding these contestations over management and control of natural resources in a region that is a major source of global commodities involves case studies where we analyze how actors and institutions seek to shape the message, win public opinion and shape policy or legal outcomes. For this volume, we selected three case studies which allow important comparisons: all three garnered intense media coverage regionally, nationally and internationally; all have to do with conflict surrounding natural resource management in remote locations far from urban centers in social systems of high inequality; and all involve complex layers of regional and national politics, indigenous politics, national rhetoric and international power players. However, these cases allow for contrast, as well, as each study involves particular contextual political, economic and social fabrics.

This project grew from an earlier study of news coverage of the Chevron oil contamination case in Ecuador. What we found as a result of that research—discussed in Chapter 3—provided the foundation for this book and led us to look at other contested situations of environmental degradation elsewhere in South America to provide opportunity for comparison and contrast. South America is a fascinating continent, where cultural nuances do not end at national boundaries, and where historical evolution of media, national identity, and development strategies and economic and political realities have some similarities, but also diverge in important ways. For that reason, we set out to analyze cases of claims-making surrounding news coverage of controversial environmental mega-projects in major South American media markets that display similar patterns of oligopolistic media ownership.

For the second case study we chose the Belo Monte hydroelectric dam complex in Brazil that proponents say will provide much-needed energy to a fast-growing nation, and that opponents charge will destroy important and vast ecosystems, displace thousands of residents and impact the cultural heritage and livelihood of indigenous populations in ancestral lands they have occupied for centuries. Expected to be the fourth-largest mega-dam in the world, Belo Monte will power a growing number of transnational extractivist industries that have their sights set on Amazonia's mineral wealth, and open the floodgates for the construction of additional hydroelectric projects in the increasingly less remote Brazilian rainforest. The third case study in this volume examines news coverage of yet another

transnational multi-billion dollar investment: the Pascua Lama mine on the border between Argentina and Chile. Representatives of Canadian conglomerate Barrick Gold and Chilean government officials have argued that the project will deliver substantial economic spillovers, such as more jobs and better infrastructure for nearby communities and dismissed predictions of severe environmental impact from the removal of three glaciers and the contamination of the Atacama desert watershed. Caught in the middle, the indigenous Diaguita people who reside in the Huasco Valley argued that the presumptive economic benefits will not compensate for their losses in agriculture. All three cases involve mediated discourses of urban–rural geographies, voices of indigenous and non-indigenous contestants, sets of media–state relations that allow for comparison and contrast, and national development policies that rely largely on natural resource exploitation for international market demand.

Content Analysis

For all cases, we first analyze regional and national daily news published by major news organizations with differing perspectives and strong print and online presences within each nation. We examine digital mainstream news coverage at regional and national levels of the conflicts in the three countries and discuss the results in terms of political, cultural and social contexts. Sources, frames, themes, actors and discursive constructions are examined to gauge the presentation of each environmental conflict to local, national and international audiences according to each medium surveyed. We ask how discourses surrounding modernity, progress, culture, citizenship, risk and identity are intertwined with messaging regarding the controversy at hand, its impacts and policy implications, how the legacy media constructed them over time, and how they reflect translations of scale at local, national and international levels. In particular, we were interested in looking at the relationships between specific attributes: the frame of the news article and the scope of the newspaper, the principal actor of the news and the emerging themes, the principal and secondary actors of the news, and the principal actors and their opinions about resource extraction.

The content analyses compared online newspaper articles from mass circulated newspapers in the capital and business centers in each of the countries under study. Online news was selected, as the debate reflected an international scope and we wished to examine the news local, national and global audiences were reading. Furthermore, online content from

newspapers has been long deemed to be a strong equivalent for print (Quandt 2008). All articles were reviewed to ensure they were news articles rather than opinion pieces, and were relevant to the topic. This summative content analysis borrows from Hsieh and Shannon's (2005) approach of counting and comparing pre-identified keywords (derived from the literature) and textual content, then interpreting the contextual meaning contained in the narrative. In this manner, the interpretation of the content amplifies the initial quantitative method and count of frequencies with an analysis of how words are used in relation to the subject matter. While this method adds depth to the researchers' understanding of the broader context within which the social construction of meaning occurs, its limitation can reside in the consistency of analysis. For that reason, intercoder reliability was tested to ascertain the credibility and validity of the data analysis. Four coders proficient in Spanish and two proficient in Portuguese established and verified 21 coding categories. A test of one-tenth of the sample delivered simple intercoder agreement, a measure of reliability that was further tested and verified by an independent coder. Intercoder agreement achieved 90 percent for the Brazil sample, 89 percent for the Ecuador sample and 88 percent for the Chile sample.

The Ecuador case was our initial exploratory case study and therefore presents some differences from the other two. Here, we employed a quantitative and qualitative content analysis to ensure a robust understanding of the news content. For the quantitative analysis, we used a modified version of frame, script and source typologies applied to other "science related policy debate" (Nisbet 2009). Nisbet (2009) conceptualizes framing as an interpretive narrative that sets up the logic for ascribing responsibility, problematizing an issue or identifying possible solutions to problems. Framing is thus understood as a lens that lends emphasis to particular aspects of a problem. This typology for discussion of climate change, which Nisbet evolved from studies conducted in the natural sciences, contributes rigor to the analysis and adds nuance to the researchers' understanding of the varied frames, scripts and sources that permeate news media representations. It allowed us to examine the contestation in the story in the context of a mediated battleground involving resource control, national policy and moral themes via the application of frames and applied sourcing pattern. It also allowed us to link to theoretical notions of risk, as delineated in Beck's notion of developing nations shifting from a view of resource extraction in terms of progress to wanting to reduce their risks to contamination and other hazards.

We examined two Ecuadorian dailies with high circulations and online presence, *El Universo* and *El Comercio*, as newspapers of prestige with national reach for Ecuadorian audiences. *El Universo* (located in the business capital Guayaquil) is the number two newspaper in terms of circulation, and *El Comercio*, in the capital Quito, is the third; both "are influential in the political and economic public opinion of the country" (Jordan-Tobar and Panchana-Macay 2009, p. 119). We used a Google search of the terms "Chevron" and "Texaco" to identify and locate news articles in online archives published from January 2002 to February 2010, resulting in a final sample of 370 items.

For the qualitative analysis of the Ecuador articles, we used NVivo software to search for risk themes and explore the use of them, as well as to examine who was allowed into the mediated arena to voice them. We searched the news articles for risk words (Sandman et al. 1987, pp. 7–8, 111). These words included "risk," "danger," "health," "probability," "contamination," "damage" and "security," and their variations. We examined these texts to determine if the use of the word was relevant to our study (i.e. "security" was not used in the sense of military action or national security, with no reference to the case explored here).

For the study of Brazilian and Chilean news media content, we employed a largely quantitative content analysis. Based on Wozniak et al. (2015), we looked at frequencies and crosstabs. Our analysis included 601 news articles from two of the main newspapers with national circulation in each country, *O Globo* and *Folha de São Paulo* in Brazil and *El Mercurio* and *La Tercera* in Chile. The period of analysis varies according to the peak of each controversy, but is long enough to assess not only the evolution of each case, but also to put in perspective the dominant narrative presented by major news media gatekeepers. For the Brazil case study we used a Google search of the terms "Belo Monte" and "Norte Energia" to identify and locate news articles in online archives published from January 2013 to February 2015, resulting in a final sample of 375 items. For Chile, we used a Google search of the terms "Pascua Lama" and "Minera Nevada" to identify and locate news articles in online archives published from November 2008 to March 2015, resulting in a final sample of 226 items. Table 2.1 provides a brief summary of each environmental conflict, the newspapers analyzed, the total number of articles for each newspaper, and the period of analysis for each case.

The variables we used for the analysis were scope, frame, tone, emerging themes, principal actor, secondary actor, and principal actor's opinion.

Table 2.1 Environmental conflict by country

Country	Environmental conflict	Newspaper	News articles	Period
Brazil	Dam in Belo Monte	*Folha de São Paulo*	245	January 2013– February 2015
		O Globo	130	
		Total	**375**	
Chile	Pascua Lama mine	*El Mercurio*	95	November 2008–March 2015
		La Tercera	131	
		Total	**226**	
Ecuador	Land contamination with toxic residuals by Texaco-Chevron	*El Comercio*	221	January 2002– February 2010
		El Universo	149	
		Total	**370**	

Each variable contains different categories. The scope of the news was determined by the location based on the dateline, and contains five categories: (a) capital; (b) provincial; (c) national; (d) international; and (e) other. The predominant frame also included five categories: (a) business as usual, which is also considered a low mimetic narrative; (b) romantic, which refers to news that was presented as a "triumph over adversity" or a situation in which "an obstacle is overcome"; (c) tragic, which refers to news that was presented as "all efforts are futile"; (d) apocalyptic, which includes news that was presented as "the end is near" or as "a struggle to save the planet"; and (e) melodramatic, referring mostly to situations involving social or political conflicts.[1]

The dominant tone of the news has five categories: (a) fatalistic; (b) optimistic; (c) neutral/not excited; (d) passionate; and (e) pessimistic. The emerging themes with regard to energy/resource extraction were coded into six categories: (a) development or progress; (b) national prerogative; (c) necessary evil; (d) corporate-driven; (e) inevitably destructive; and (f) other. The principal and secondary actors of the news were classified into 11 categories: (a) local government; (b) national government; (c) military; (d) private sector/corporate; (e) civil society (NGOs, citizen associations); (f) indigenous communities; (g) documents; (h) courts or lawyers; (i) journalist/media; (j) other; (k) foreign government. Both the principal and secondary actors are proxies for the sources of news. By finding out more about the principal and secondary sources of the news articles we can infer whether news content is in line with definitions and terms established

by elite groups. This in turn serves as evidence to either accept or reject Bennett's indexing hypothesis. Finally, we created four different categories to represent the principal actor's opinion toward energy/resource extraction: (a) no opinion; (b) in favor; (c) balanced opinion, including pros and cons; and (d) opposed. We looked at the individual frequencies of each of these variables as well as crosstabs between them as a preliminary step for meaningful relationships.

Coincidence Analysis

For all three case studies, we employed coincidence analysis techniques in addition to frequencies and crosstabs, to uncover the structure of the relationships among the different categories that resulted from the content analysis of the news articles in each country. Coincidence analysis consists of a set of techniques that allows for the study of coincidences of events, actors, attributes, opinions, or any other combination of these. It is suitable for content analysis of news articles and has many applications in the study of social networks, or in the analysis of categorical data coming from questionnaires (Escobar 2015).

In particular, we were interested in looking at the relationships between specific categories. For instance, we were interested in understanding whether the frame of the news article was somehow related with the scope of the newspaper; whether the principal actor of the news was a determinant of the emerging themes. Also, whether the principal and secondary actors of the news were related, and if so, how. Finally, we looked for patterns in the relationship between the principal actors and their opinions about resource extraction.

Coincidence analysis sought out events that occurred at the same time within different delimited spaces, each of which represents a scenario. For the purpose of this analysis, each scenario is a news article and we use the term "event" in a broad sense—an event could be a specific attribute or a person. So the frame of the news, the scope of the newspaper, the emerging themes of the news, the actors of the news (principal and secondary), or actors' opinions are all treated as polytomous variables containing possible specific events.

For each event, we created a dichotomous variable taking the values of one (1) when the event occurred or zero (0) otherwise. For example, in the case of the scope of the newspaper (a polytomous variable), there are five different possibilities of events. It could be capital, national, provincial, international or other. However, each news article can only contain one option. Therefore,

there are five dichotomous variables, one for each event. So, if the scope of the news was *capital*, the variable was coded as 1, whereas the others took the value of 0.

In a similar fashion, the frame of the news included five different possibilities: business, romantic, tragic, apocalyptic and melodramatic. Each of those represents an event that can take the value of 1 if a particular frame is found in a news article. Or it could be 0 if the event does not occur. For instance, if the frame of the news article was found to be *romantic* then the dichotomous variable for this frame was coded as 1, and each of the variables for the other frames were coded with 0.

Table 2.2 offers a visual example of this procedure. The first row contains the scenario and the name of each variable. Polytomous variables are in upper caps to distinguish them from the dichotomous ones (small caps). The first column refers to each of the news articles in the sample. Each subscript represents a number given to the article. The subscript n refers to the last news article in our sample.[2] The second and third columns refer to the scope and frame of the news respectively. Each of the last five columns represents one specific frame and they were coded as dichotomous variables. So we can observe that in the first news article, News article$_1$, the frame is romantic, which is coded as 1, whereas the rest of the variables took values of 0. In the case of News article$_2$, since the frame is business, the dichotomous variable for this one is coded as 1, but the others are 0.[3] A similar procedure was followed for scope and the other categories.

Once all the binary variables are created for each category of the polytomous variables, the next step is to create an incidence matrix. This matrix contains frequencies of coincidences based on the categories of our interest. For instance, if we are interested in the relationship between the scope and frame of the news, we look for all of the cases where each of the categories for scope occurs at the same time as each of the categories for frame. Therefore, we can determine how many news articles coincide with a capital scope and which coincide with a romantic frame. Or, how many articles have an international scope and were framed as business as usual.

The incidence matrix serves as the foundation for a multidimensional scaling graph, which is a graphical representation of the frequencies contained in the incidence matrix with a sociogram, better known as a network graph (see Figs. in Chapters 3–5). The number of dimensions is determined by the number of polytomous variables analyzed each time. Usually,

Table 2.2   Polytomous and dichotomous variables in each news article

News article	Scope	Frame	Business as usual	Romantic	Tragic	Apocalyptic	Melodramatic
News article$_1$	Capital	Romantic	0	1	0	0	0
News article$_2$	International	Business	1	0	0	0	0
News article$_3$	Province	Tragic	0	0	1	0	0
…							
News article$_n$	Capital	Romantic	0	1	0	0	0

coincidence analysis is performed with two-dimensional network graphs. But complex analysis requires more than two.[4] Each node represents an event and its size is determined by its frequency of occurrence within the sample of news articles. Thus the greater the frequency of the event, the larger the node. In addition, each node may be connected to one or more nodes, or it may not be connected to any other node. Each line in the network graph represents a connection. The number of connections (lines) is determined by the number of coincidences with other events. An isolated node is an event that is not coincident with the other events in the network.

Interviews

Content analyses were complemented with semi-structured interviews, encapsulating 35 hours of interviews with 26 journalists, editors and stakeholders in the three countries, conducted over the course of three years over telephone, Skype, email, or in person. The total number of interviews ($N = 26$) meets the median for studies of this nature (Jensen et al. 2013). Initial respondents were identified based on bylines in the news articles included in the overall sample. Each interviewee was then asked to identify other individuals who might be knowledgeable about the topic and might agree to participate in this research. Whereas this snowball sampling method is valuable in identifying participants willing to discuss topics that could be considered politically sensitive, it does increase the

likelihood that respondents may share common characteristics, or similar social and educational backgrounds. Since the questions examined in this study revolve around professional practices and norms adopted by journalists in South America, it is to be expected that respondents will share somewhat similar social and educational backgrounds. In Brazil, interviews with reporters, editors and other stakeholders complemented a quantitative analysis of 375 news articles published in two leading family-owned daily newspapers of national reach, *O Globo* and *Folha de São Paulo*, during the two-year period starting in January 2013, following violent protests against the dam. Interviews with journalists based in Chile and its neighbor countries complemented a quantitative analysis of 226 news articles published in two leading national daily newspapers, *El Mercurio* and its main competitor *La Tercera*, between November 2008 and March 2015. Interviews with journalists based in Ecuador complemented the content analysis and quantitative analysis of 370 news articles published in the major dailies *El Comercio* and rival *El Universo* between January 2002 and February 2010. The interviews, which lasted anywhere from 30 to 120 minutes, were conducted until such time as the interviewer determined that no new themes emerged (Flick 2002).

In each case, we asked about the processes involved in reporting the news surrounding each conflict. In particular, we asked about source selection, story placement, editorial decisions, advertising pressures, political orientation, audience feedback, omissions, reporting constraints (data access, funding) and organizational imperatives. The responses were qualitatively analyzed for shared themes, deeper meanings or exclusions.

Each of the next three chapters encompasses a description of the case study, the controversy and its context, along with the results of the content analysis and the analysis of the interviews. In each, we ask, how was the issue defined over time? Who was cited and how did their legitimacy and prominence change over time? How was the issue framed, and how did those frames link to ideological discourses regarding development, national identity, sustainability and citizenship? We begin with the case study that initiated the idea for this book: the decades-long legal battle regarding widespread oil contamination in the Ecuadorian rainforest that has allegedly had a severe impact on the health of residents living there. It revolves around key themes of mediated constructions of risk, identity, injury, responsibility and national development.

Notes

1. The variable frame in the Ecuador case was coded using a different instrument. It includes 16 categories: (a) *social progress*; that is, if the news is presented as an issue of improving the quality of life or as living in harmony with nature; (b) *solidarity*; that is, whether the issue was presented in terms of empathy with other populations; (c) *social/environmental justice*; that is, if the issue was presented in terms of distribution of resources, democratic participation, equity, conflict, race or class; (d) *economic development/competitiveness*; that is, if the narrative was focused in terms of market benefits or risks; (e) *morality and ethics*; that is, if the angle taken is about what is right or what is wrong; (f) *scientific/technical uncertainty*; that is, when it was left to experts to decide; (g) *risk/Pandora's box*; that is, if the news was about precautions in the face of dangerous consequences; (h) *fatalism*; that is, if there was no way to avoid the consequences; (i) *public accountability and governance*; that is, if it was presented as an issue of transparency, participation and responsiveness; (j) *middle way/alternative path*; that is, when there was third way between polarizing views; (k) *conflict and strategy, referring to loss or gain frames*; that is, who is winning or losing, or a battle between personalities or groups; (l) *identity frame*; that is, when there was a person's orientation or individual interest in the conflict, the community had a role on it, or if it was related to local institutions; (m) *characterization of others*; that is, if there were attributions of blame, or different perceptions between groups; (n) *legal narrative*; (o) *other*; and (p) *multiple frames*.
2. In our database we created a specific ID number for each news article.
3. In the instrument used in Brazil and Chile, frames are mutually exclusive, which means that there only can be one frame in a news article. However, in the case of Ecuador, we allowed for the possibility of multiple frames.
4. Since we are interested in looking at relations between two variables, that is, frame and scope, we used two-dimensional network graphs.

References

Anderson, A. (1997). *Media, culture and the environment*. New Brunswick, NJ: Rutgers University Press.

Barton, J., & Floysand, A. (2010). The political ecology of Chilean salmon aquaculture, 1982–2010: A trajectory from economic development to global sustainability. *Global Environmental Change*, *20*: 739–752.

Bennett, W. L. (1990). Toward a theory of press-state relations in the United States. *Journal of Communication*, *40*(2): 103–125.

Bennett, W. L. (1996). *The politics of illusion*. Chicago: University of Chicago Press.

Bennett, W. L. (2003). *News: The politics of illusion*. New York: Longman.

Bennett, W. L., Pickard, V., Iozzi, D., Schroeder, C., Lagos, T., & Caswell, C. (2004). Managing the public sphere: Journalistic construction of the great globalization debate. *Journal of Communication*, *54*(3): 437–455.

Bourdieu, P. (1991). *Language and symbolic power*. Cambridge: Polity.

Boykoff, M. T. (2009). We speak for the trees: Media reporting on the environment. *Annual Review of Environment and Resources*, *34*, 431–457.

Boykoff, M. T., & Roberts, J. T. (2007). Media coverage of climate change: Current trends, strengths, weaknesses. *Human Development Report*, 2008, 3.

Boykoff, M., Goodman, M., & Curtis, I. (2009). Cultural politics of climate change: Interactions in everyday spaces. In M. Boykoff (Ed.), *The politics of climate change: A survey* (pp. 136–154). New York: Routledge.

Boykoff, M. (2011). *Who speaks for the climate? Making sense of media reporting on climate change*. Cambridge: Cambridge University Press.

Boykoff, M. T., & Boykoff, J. M. (2004). Balance as bias: Global warming and the US prestige press. *Global Environmental Change*, *14*(2): 125–136.

Boykoff, M. T., & Boykoff, J. M. (2007). Climate change and journalistic norms: A case-study of US mass-media coverage. *Geoforum*, *38*(6): London: Routledge, 1190–1204.

Brossard, D., Shanahan, J., & McComas, K. (2004). Are issue-cycles culturally constructed? A comparison of French and American coverage of global climate change. *Mass communication & society*, *7*(3), 359–377.

Brown, J., Bybee, C., Wearden, S., & Straughan, D. (1989). Invisible power: Newspaper news sources and the limits of diversity. *Journalism Quarterly*, *64*: 45–54.

Brown, J., & Purcell, M. (2005). There's nothing inherent about scale, political ecology, the local trap, and the politics of development in the Brazilian Amazon. *Geoforum*, *36*: 607–624.

Brummans, B. H. J. M., Putnam, L., Gray, B., Hanke, R., Lewicki, R., & Wiethoff, C. (2008). Making sense of intractable multiparty conflict: A study of framing in four environmental disputes. *Communication Monographs*, *75*(1): 25–51.

Bryant, R. L., & Bailey, S. (1997). *Third world political ecology*. New York: Routledge.

Bulkley, H. (2005). Reconfiguring environmental governance: towards a politics of scales and networks. *Political Geography*, *24*: 875–902.

Calhoun, C. J. (1992). *Habermas and the public sphere*. MIT press.

Carabaza González, J. (2007). El papel de la prensa en la construcción de las representaciones sobre la problemática ambiental en los habitantes de Saltillo, Coahuila. *Convergencia*, *14*(43), 39–71.

Carvalho, A. (2007). Ideological cultures and media discourses on scientific knowledge: Rereading news on climate change. *Public Understanding of Science*, *16*(2): 223–243.

Carvalho, A., & Burgess, J. (2005). Cultural circuits of climate change in U.K. broadsheet newspapers, 1985–2003. *Risk Analysis*, *25*(6): 1457–1469.

Castells, M. (1998). The rise of the network society, the information age: Economy, society and culture, Vol. I.

Castells, M. (2008). The new public sphere: Global civil society, communication networks and global governance. *Annals of the American Academy of Political and Social Science, 616*: 78–93.

Cohen, B. (1963). *The press and foreign policy*. Princeton: Princeton University Press.

Corbett, J. B. (2006). *Communicating nature: How we create and understand environmental messages*. Island Press.

de Cardona Fox, F. (2002). Latin politics, global media. S. R. Waisbord (Ed.). University of Texas Press.

Cottle, S. (2006). *Mediatized conflict*. New York: Open University Press.

Couldry, N. (2010). Why voice matters: Culture and politics after neoliberalism. Thousand Oaks, CA: SAGE.

Crowfoot, J., & Wondeleck, J. (1990). Citizen organizations and environmental conflict. In J. Crowfoot & J. Wondeleck (Eds.), *Environmental disputes: Community involvement in conflict resolution* (pp. 1–15). Covelo, CA: Island Press.

Curran, J. (1991). Mass media and democracy: A reappraisal. In J. Curran & M. Gurevitch (Eds.), *Mass media and society* (pp. 82–117). New York: Routledge, Chapman & Hall.

Dickson, S. (1992). Press and U.S. policy toward Nicaragua, 1983–1987: A study of the New York Times and Washington Post. *Journalism Quarterly, 69*: 562–571.

Djerf-Pierre, M. (2012). The crowding-out effect: Issue dynamics and attention to environmental issues in television news reporting over 30 years. *Journalism studies, 13*(4), 499–516.

Dotson, D. M., Jacobson, S. K., Kaid, L. L., & Carlton, J. S. (2012). Media coverage of climate change in Chile: A content analysis of conservative and liberal newspapers. *Environmental Communication: A Journal of Nature and Culture, 6*(1): 64–81.

Downs, A. (1972). The issue-attention cycle and the political economy of improving our environment. *The Political Economy of Environmental ControlI* (pp. 9–34). Berkeley: University of California Press.

Dunwoody, S., & Griffin, R. (1993). Journalistic strategies for reporting long-term environmental issues: A case study of three Superfund sites. In A. Hansen (Ed.), *The Mass media and environmental issues* (pp. 22–50). Leicester: Leicester University Press.

Eide, E., & Ytterstad, A. (2011). The tainted hero: Frames of domestication in Norwegian press representation of the Bali climate summit. *The International Journal of Press/Politics, 16*(1), 50–74.

Encalada, M. (2001). La prensa y la conservación en Galápagos. Chasqui. (74). Obtenido el, 15.

Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of communication*, *43*(4), 51–58.

Entman, R. (2004). *Projecting the news: Framing news, public opinion, and U.S. foreign policy*. Chicago: The University of Chicago Press.

Escobar, M. (2015). Studying coincidences with network analysis and other multivariate tools. *The Stata Journal*, *15*(4): 1118–1156.

Flick, U. (2002). *An introduction to qualitative research*. London, England: SAGE.

Forsyth, T. (2003). *Critical political ecology: The politics of environmental science*. London: Routledge.

Fraser, N. (1990). Rethinking the public sphere: A contribution to the critique of actually existing democracy. *Social Text*, (25/26), 56–80.

Friedman, S. M., Dunwoody, S., & Rogers, C. L. (1999). *Communicating uncertainty: Media coverage of new and controversial science*. Routledge.

Gamson, W. A., & Modigliani, A. (1989). Media discourse and public opinion on nuclear power: A constructionist approach. *American journal of sociology*, 1–37.

Gamson, W. A., Croteau, D., Hoynes, W., & Sasson, T. (1992). Media images and the social construction of reality. *Annual review of sociology*, *18*, 373–393.

Gans, H. (1979). *Deciding what's news*. New York: Pantheon.

Gitlin, T. (1980). *The whole world is watching: Mass media in the making & unmaking of the new left*. Univ of California Press.

González, J. C., Rendón, J. C. L., González, J., Pasco, L., Reyes, L., Berumen, A., & Álvarez, P. (2007). Cobertura del medio ambiente en la televisión mexicana. *Comunicación y Sociedad*, (7), 45–76.

Gordon, J. C., Deines, T., & Havice, J. (2010). Global warming coverage in the media: Trends in a Mexico City newspaper. *Science Communication*, *32*: 143–170.

Graber, D. A. (1989). Content and Meaning What's It All About. *American Behavioral Scientist*, *33*(2), 144–152.

Gudynas, E. (2009). Diez tesis urgentes sobre el nuevo extractivismo. *Extractivismo, política y sociedad*, 187–225.

Guzmán, I. M. (2006). Competing discourses of community Ideological tensions between local generalmarket and Latino news media. *Journalism*, *7*(3), 281–298.

Habermas, J. (1989). *The structural transformation of the public sphere*, trans. Thomas Burger. Cambridge, MA: MIT Press.

Hallin, D. (1986). *The "uncensored war": The media and Vietnam*. New York: Oxford University Press.

Hallin, D., Manoff, R., & Weddle, J. (1993). Sourcing patterns of national security reporters. *Journalism Quarterly*, *70*(4): 753–766.

Hallin, D. (1994). *We keep America on top of the world*. New York: Routledge.

Hallin, D., & Mancini, P. (2004). *Comparing media systems: Three models of media and politics*. Cambridge: Cambridge University Press.

Hanitzsch, T. (2007). Deconstructing journalism culture: Towards a universal theory. *Communication Theory*, *17*(4): 367–385.

Hanitzsch, T., Anikina, M., Berganza, R., Cangoz, I., Coman, M., Hamada, B., … & Mwesige, P. G. (2010). Modeling perceived influences on journalism: Evidence from a cross-national survey of journalists. *Journalism & Mass Communication Quarterly*, *87*(1), 5–22.

Hansen, A. (1991). The media and the social construction of the environment. *Media, Culture & Society*, *13*: 443–458.

Hansen, A. (Ed.). (1993). *The mass media and environmental issues.* Leicester: Leicester University Press.

Harlow, S. (2012). A political boss and the press: The impact on democracy of two Brazilian newspapers. *Journalism*, *13*: 340–353.

Hempel, L. (1996). *Environmental governance: The global challenge.* Washington DC: Island Press.

Henne, A., & Gabrielson, T. (2012). Chile is timber country: Citizenship, justice and scale in the Chilean native forest market campaign. In A. Latta & H. Wittman (Eds.), *Environment and citizenship in Latin America: Natures, subjects and struggles* (pp. 149–170). New York: Berghahn.

Herman, E., & Chomsky, N. (1988). *Manufacturing consent.* New York: Pantheon.

Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, *15*(9): 1277–1288.

Hughes, S. (2006). *Newsrooms in conflict: Journalism and the democratization of Mexico.* Pittsburgh: University of Pittsburgh Press.

Hughes, S., & Lawson, C. (2005). The barriers to media opening in in Latin America. *Political Communication*, *22*: 9–25.

IPCC. (2014). Fifth Assessment Report. http://www.ipcc.ch/report/ar5/wg2/. Accessed April 30, 2016.

Islam, S. T. (2007). Deforestation in Bangladesh: Language and power in action. *Narrative Inquiry*, *17*(1): 141–156.

Jensen, R. E., Christy, K., Gettings, P. E., & Lareau, L. (2013). Interview and focus group research: A content analysis of scholarship published in ranked journals. *Communication Methods and Measures*, *7*: 126–133.

Jordán Tobar, R., & Panchana-Macay, A. (2009). The media in Ecuador. In *The Handbook of Spanish Language Media* (pp. 103–135). New York: Routledge.

Kim, S. (2000, Winter). Making a difference: U.S. press coverage of the Kwangju and Tiananmen pro-democracy movements. *Journalism & Mass Communication Quarterly*, *77*: 345–365.

Kitzberger, D., & Pérez, G. (2008). *El tratamiento del cambio climático en la prensa latinoamericana.* Report of the Konrad Adenauer Foundation. www.kas.de. Accessed November 21, 2013.

Kurtz, H. (2003). Scale frames and counter scale frames: Constructing the problem of environmental injustice. *Political Geography*, *22*: 887–916.

Lawson, C. (2002). *Building the fourth estate: Democratization and the rise of a free press in Mexico*. Berkeley: University of California Press.

Lester, L. (2010). *Media and environment*. Cambridge: Polity.

Lester, L., & Hutchins, B. (Eds.). (2013). *Environmental conflict and the media*. New York: Peter Lang.

Lester, L., & Hutchins, B. (2012). The power of the unseen: Environmental conflict, the media and invisibility. *Media, Culture & Society*, *34*(7), 847–863.

Lewicki, Roy, Barbara Gray, and Michael Elliott. (2003). *Making sense of intractable environmental conflicts: Concepts and cases*. Island Press.

Magrin, G., García, C., Cruz, D., Choque, C., Giménez, J. C., Moreno, A. R., Villamizar, A. (2007). Latin America climate change 2007: Impacts, adaptation and vulnerability. In M. L. Parry, O. F. Canziani, J. P. Palutikof, P. J. Van Der Linden, & C. E. Hanson (Eds.), *Fourth assessment report of the Intergovernmental Panel on Climate Change* (pp. 581–615). Cambridge: Cambridge University Press.

Manheim, J. B. (1998). The news shapers: Strategic communication as a third force in news making. *The Politics of News: The News of Politics*, 94–109.

Marston, S. (2004). A long way home: domesticating the social production of scale. In E. Sheppard & R. McMaster (Eds.), *Scale and geographic inquiry: Nature, society, and method* (pp. 70–191). Oxford: Blackwell.

Marston, S., & Smith, N. (2001). States, scales and households: Limits to scale thinking? A response to Brenner. *Progress in Human Geography*, 25(4): 615–619.

Massarani, L., & Buys, B. (2007). Science in the press in Nine Latin American countries. *Brazilian Journalism Research*, *3*(2), 77–96.

Massarani, L., Buys, B., Amorim, L. H., & Veneu, F. (2005). Science Journalism in Latin America: A case study of seven newspapers in the region. *Journal of Science Communication*, *4*, 3.

Mellado, C. (2015). Professional roles in news content. *Journalism Studies*, *16*(4): 596–614.

Mellado, C., Moreira, S. V., Lagos, C., & Hernández, M. E. (2012). Comparing journalism cultures in Latin America The case of Chile, Brazil and Mexico. *International Communication Gazette*, *74*(1), 60–77.

Mercado, M. (2012). Media representations of climate change in the Argentine press. *Journalism Studies*, *13*(2): 193–209.

Miller, S. W. (2007). *An environmental history of Latin America*. Cambridge: Cambridge University Press.

Moore, J. (Ed.). (2016). *Anthropocene or Capitalocene? Nature, history and the crisis of capitalism*. Dexter, MI: Kairos.

Nauman, T. (2003). Mexico's Right-to-Know Movement. *Citizen Action in the Americas*, (4).

Neumayer, J. (2002). Do democracies exhibit stronger international environmental commitment? A cross-country analysis. *Journal of Peace Research*, *39*(2): 139–164.

Newell, P. (2008). Civil society, corporate accountability and the politics of climate change. *Global Environmental Politics*, *8*(3): 122–153.

Nisbet, M. C. (2009). Communicating climate change: Why frames matter for public engagement. *Environment: Science and Policy for Sustainable Development*. Communicating climate change: Why frames matter for public engagement. Accessed April 30, 2016.

Opotow, S., & Weiss, L. (2000). Denial and the process of moral exclusion in environmental conflict. *Journal of Social Issues*, *56*(3): 475–490.

Payner, O. (1995). Freedom and the environment. *Journal of Democracy*, *6*: 41–55.

Pan, Z., & Kosicki, G. M. (1993). Framing analysis: An approach to news discourse. *Political communication*, *10*(1), 55–75.

Park, D. J., Wang, W., & Pinto, J. (2015). Beyond Disaster and Risk: Post-Fukushima Nuclear News in US and German Press. Communication, Culture & Critique.

Peet, R., & Watts, M. (1996). Liberation ecology: Development, sustainability, and environment in the age of market triumphalism. In M. Watts & R. Peet (Eds.), *Liberation ecologies: Environment, development, social movements* (pp. 1–45). New York: Routledge.

Pew Global Attitudes Project. (2007, June 27). *Rising environmental concern in 47-nation survey: Global unease with major world powers*. Washington, DC.

Pinto, J. (2008). Muzzling the watchdog: The case of disappearing watchdog journalism from Argentine mainstream news. *Journalism*, *9*(6): 750–774.

Pinto, J. (2012). Legislating 'rights for nature in Ecuador: The mediated social construction of human/nature dualisms. In A. Latta & H. Wittman (Eds.), *Environment and citizenship in Latin America: natures, subjects and struggles* (Vol.101, pp. 227–243). Amsterdam: Berghahn Books.

Pinto, J., & Vigon, M. (2014, Summer). Press freedom, democracy and climate change reporting in Latin America. *Hemispheres*, *23*, 24–32.

Pompper, D. (2004). At the 20th century's close: Framing the public policy issue of environmental risk. *The environmental communication yearbook*, *1*, 99–134.

Porto, M. (2007). TV news and political change in Brazil: The impact of democratization on TV Globo's journalism. Journalism, 8(4): 363–384.

Quandt, T. (2008). (No) news on the World Wide Web? *Journalism Studies*, *9*(5): 717–738.

Reese, S. D. (2001). Understanding the global journalist: A hierarchy-of-influences approach. *Journalism Studies*, *2*(2), 173–187.

Reis, R. (1999). Environmental news: Coverage of the Earth Summit by Brazilian newspapers. *Science Communication*, *21*(2): 137–155.

Robbins, P. (2004). *Political ecology*. Malden, MA: Blackwell.

Sachsman, D. B., Simon, J., & Valenti, J. M. (2005). Wrestling with objectivity and fairness: US environment reporters and the business community. *Applied Environmental Education and Communication*, *4*(4), 363–373.

Sandman, P. M., Greenberg, M., & Sachsman, D. B. (1987). Environmental risk and the press. Transaction Publishers.

Schudson, M. (1989). The sociology of news production. *Media, Culture & Society*, *11*: 263–282.

Schudson, M. (1997). The sociology of news production. *Social meanings of news: A text-reader*, 7–22.

Shehata, A., & Hopmann, D. (2012). Framing climate change. *Journalism Studies*, 13(2), 175–192.

Shoemaker, P. J., & Reese, S. D. (1996). *Mediating the message White Plains*. NY: Longman.

Shoemaker, P. J., & Vos, T. (2009). *Gatekeeping theory*. Routledge.

Shoemaker, P. J., Eichholz, M., Kim, E., & Wrigley, B. (2001). Individual and routine forces in gatekeeping. *Journalism & mass communication quarterly*, *78*(2), 233–246.

Sigal, L. (1973). *Reporters and officials*. Lexington, MA: DC Heath.

Stetson, G. (2012). Oil politics and indigenous resistance in the Peruvian Amazon: The rhetoric of modernity against the reality of coloniality. *Journal of Environment and Development*, *21*(1): 76–97.

Stott, P., & Sullivan, S. (Eds.). (2000). *Political ecology: Science, myth and power*. London: Arnold.

Sundberg, J. (2008). Placing race in environmental justice research in Latin America. *Society & Natural Resources*, *21*(7): 569–582.

Sundberg, J. (2012). Negotiating citizenship in the Maya Biosphere Reserve, Guatemala. In A. Latta & H. Wittman (Eds.), Environment and citizenship in Latin America: Natures, subjects and struggles (pp. 97–111). New York: Berghahn.

Takahashi, B. (2011). Framing and sources: a study of mass media coverage of climate change in Peru during the V ALCUE. *Public Understanding of Science*, *20*(4), 543–557.

Takahashi, B., & Meisner, M. (2013). Climate change in Peruvian newspapers: The role of foreign voices in a context of vulnerability. *Public Understanding of Science*, *22*(4): 427–442.

Takahashi, B., Pinto, J., Vigon, M., & Chavez, M. (2015). El ambiente y las noticias: Understanding U.S. Spanish language newsrooms' coverage of environmental issues. *International Journal of Hispanic Media*, 8: 1–14.

Tuchman, G. (1978). *Making news: A study in the construction of reality*. New York: Free Press.

Van Dijk, T. (Ed.). (2009). *Racism and discourse in Latin America*. New York: Lexington.

Van Gorp, B. (2007). The constructionist approach to framing: Bringing culture back in. *Journal of Communication*, *57*: 60–78.

Villar, M.E., & Pinto, J. (2013). Coverage of climate change in leading U.S. Spanish-language newspapers. *Journal of Spanish Language Media*, *6*, 42–60.

Voakes, P. S. (1997). Social influences on journalists' decision making in ethical situations. *Journal of Mass Media Ethics*, *12*(1), 18–35.

Waisbord, S. (1999). Media in South America: Between the rock of the state and the hard place of the market. In J. Curran & M. J. Park (Eds.), *De-westernizing media studies* (pp. 50–62). New York: Routledge.

Waisbord, S. (2000). Watchdog journalism in Latin America. News, Accountability, and Democracy.

Waisbord, S. (2009). Press and the public sphere in contemporary Latin America. In P. Norris (Ed.), *Public sentinel: News media and governance reform* (pp. 305–328). Washington: World Bank.

Waisbord, S. (2010). The pragmatic politics of media reform: Media movements and coalition-building in Latin America. *Global Media and Communication*, *6*(2), 133–153.

Waisbord, S. (2013a). *Reinventing professionalism: Journalism and news in global perspective*. New York: Polity.

Waisbord, S. (2013b). Contesting extractivism: Media and environmental citizenship in Latin America. In L. Libby & B. Hutchins (Eds.), *Environmental conflict and the media* (pp. 105–123). New York: Peter Lang.

Waisbord, S., & Peruzzotti, E. (2009). The environmental story that wasn't: Advocacy, journalism and the asambleísmo movement in Argentina. *Media, Culture & Society*, *31*(5): 691–709.

Watts, M. J. (2000). Political ecology. In E. Sheppard & T. Barnes (Eds.), *A companion to economic geography* (pp. 257–274). Malden, MA: Blackwell.

Weaver, D. H. (2007). Thoughts on agenda setting, framing, and priming. *Journal of communication*, *57*(1), 142–147.

Weaver, D. H., & Wilhoit, G. C. (1996). The American journalist in the 1990s: US news people at the end of an era. Psychology Press.

Wozniak, A., Lück, J., & Wessler, H. (2015). Frames, stories, and images: The advantage of a multimodal approach in comparative media content research on climate change. *Environmental Communication*, *9*(4): 469–490.

Zamith, R., Pinto, J., & Villar, M. (2013). Constructing climate change in the Americas: An analysis of news coverage in U.S. and South American newspapers. *Science Communication*, 35(3): 334–357.

Zoch, L., & Turk, J. (1998). Women making news: Gender as a variable in source selection and use. *Journalism & Mass Communication Quarterly*, *75*(4): 762–775.

Ecuador and the Chevron Case: Spinning Risk, Hazard and Reward

This chapter focuses on Ecuadorian press coverage of the Chevron legal case in Ecuador, which arose out of allegations that indigenous populations suffered health hazards from decades of living in lands contaminated by petroleum extractive activities. A case study of the nexus of news values and environmental and health risk and hazard, it offers an opportunity to better comparatively understand the mediated social construction of claims-making during one of the biggest environmental legal battles in the world. We build on Major and Atwood's (2004, p. 297) understanding of risk as "both an actual or potential harm," as others have found news stories often focus on the actual harm, rather than the probability of its occurrence (Singer and Endreny 1993). We ask how power intersected with mediated social constructions of risk, how claims of liability and harm were presented, and if and how villains and victors were presented. Such linkages may present new avenues for understanding interfaces of news values with mediated social constructions of environmental justice claims involving risk. While scientists view risk in terms of probabilities and uncertainties, as Adam (2000, p. 117) notes, "[t]he language of risk is traditionally associated with dangerous activities," and when situations involving environmental risk meet news values, various configurations can emerge.

We chose to focus on Ecuadorian press coverage to examine the social construction of risk as an understudied area and the means to provide

better context for other studies of resource extraction and mediated claims of risk in developing countries. As Waisbord and Peruzzotti (2009, p. 692) noted, "[Risk] remains an understudied subject in Latin America where environmental politics only recently achieved a presence in the media as well as in national and regional politics." We also chose the Chevron case as an opportunity to examine claims made and voices heard in discussing harm and hazard, as the plaintiffs in the case, whose cultural ties to land were in many cases severed by the contamination, faced not only health risks but risks to cultural integrity and identity. If, as Murdock et al. (2003, p. 162) note, "control over communications is about secrecy as well as publicity," then the question of whose voices are silenced and whose claims are heard and repeated has implications beyond this case.

The case heated up into a 20-year legal battle between the oil giant and the populations who lived with the oil extraction activities and now claim damages, including for health problems, deaths, and environmental and cultural degradation. Such events and crises resonate with Beck's (1992) concept of a risk society, which discussed the shift to an individualized, information society in late modernity, where people face the hazards of "manufactured" and "contemporary risks" brought about by modernization (Murdock et al. 2003, p. 157). In Ecuador, as the battle wore on and the stakes were raised, news articles churned out to international audiences. These media configurations matter, as media legitimate and shape how society views risk and harm (Blumer 1971). As Adam and van Loon (2000, p. 2) note: "[W]e are not free to 'construct' risks as we please. Instead risks are being revealed in their construction," and those constructions are made, defined or legitimated by various actors, including the mass media (Adam and Van Loon 2000, p. 4; Beck 1992). Because environmental hazard issues can often be complex and the effects or hallmarks of them subtle or invisible, Hansen (1993, p. 449) notes that they "do not ordinarily articulate themselves."

With news as a social construction, media can function as risk amplifiers to their publics, or gatekeepers choosing not to communicate a risk, realized or potential (Kasperson et al. 1988). Indeed, professional journalistic routines and standards, such as selecting sources, placement and legitimation, can have much to do with the quality of public recognition of the risk or hazard, or legitimation of a particular argument in the contestations (Bennett et al. 2004). Drawing on the idea of the Habermasian public sphere, Murdock et al. (2003, p. 161–162) developed a model to articulate the contestation among public officials and agencies and their opposition,

corporations, scientists and other experts, social movements and the media for public attention and communication to the public, in an age in which the media serve as arenas for public debate and contestation. They build on Bourdieu's ideas of power structurations by seeing media in terms of the field among organizations, and how media performances are shaped by competition and engagement (2003, p. 164).

The difficulty of reconciling uncertainty with news values makes risk often a difficult topic for journalists. Major and Atwood (2004, p. 298) note that "risk reporting follows the facade of objectivity that developed for political reporting," resulting in ambiguity of the risk, little context or perspective, and mitigation of the degree to which audiences understand the situation. The articulations of sources as risk- or issue-entrepreneurs highlight the degree to which actors from varying arenas work to capture the media narrative (Anderson 1997; Mazur 2009). From a social constructionist perspective, sourcing patterns reveal the "success" that claims-makers have had in entering public debate, as well as their now-public battles for legitimacy of their definitions, proposed solutions, or perspectives (Hansen 2000; Robinson 2002). As Waisbord (2002, p. 275) notes, "Media representations provide crucial information used to estimate the social distribution of risk and the identity of who is responsible for the risk." Within the institutional framework of mediated public spheres, this can mean that competition for media attention revolves around four components that have significance for public attention:

- Visibility. The ability to control when and how news . . . will enter the public domain, together with the ability to conceal or suppress. . . .
- Legitimacy. Having one's arguments treated as credible and authoritative.
- Precedence. Establishing the dominant definition of the situation and commanding the agenda and terms of the debate.
- Trust. Maintaining and, if possible, enhancing public trust and support. (Murdock et al. 2003, p. 162)

While it is well established that journalists rely on official and institutional sources, because this case study was fundamentally about allegations that civil society actors suffered negative consequences from the hazards of having hydrocarbon extraction activity going on near their communities, we ask who gained entry to the mediated construction and how those patterns changed over time, as the narrative shifted. We also ask what the

predominant framing patterns were as the battle dragged on. We then ask how the risk and harm were articulated in terms of the claims regarding social distribution and the responsibility in news stories. As Waisbord (2002, p. 203) explains these concepts, "who is vulnerable? Why?... who is responsible?"

Conflict and Contamination in the Ecuadorian Amazon

This study deals with a conflict regarding contamination in Ecuador's northeastern Amazonian region. The Ecuadorian Amazon constitutes part of the larger regional western Amazon, which, according to Finer et al. (2008, p. 1), besides being a region of vast petroleum reserves, is one of the most biodiverse regions on earth and also "home to many indigenous ethnic groups, including some of the world's last uncontacted peoples living in voluntary isolation." In Ecuador, indigenous communities such as the Cófan, Kichwa, Huaorani, Siona and Secoya live in the Amazonian region, and Finer et al. (2008, p. 4) note that parts of the 65 percent of the Ecuadorian Amazon zoned for petroleum-related activities overlap "ancestral or titled lands of ten indigenous groups."

A consortium of foreign oil companies, including subsidiaries owned by U.S. oil company Texaco, discovered crude in the region in 1967 (Kimerling 2012; Sawyer 2004). By the 1970s, the consortium was producing significant amounts of oil in northeastern Ecuador (Southgate and Wasserstrom 2009) and had been joined by the Ecuadorian state-owned oil company, now Petroecuador, which had a majority share (Joseph 2012). Oil production was facilitated by the pipeline Texaco constructed in 1972 to transport oil that reached from the Amazon region, over the Andes and to the Pacific coast (Kimerling 2006, p. 415). The oil boom translated into dollars for the government: between 1971 and 1977, the country's gross national product (GNP) had gone from $2.2 billion to $5.9 billion (Kimerling 2006, p. 417). Oil, Kimerling noted, "was heralded as the salvation of Ecuador's economy, the product that would, at last, pull the nation out of chronic poverty and 'underdevelopment,'" shifting petroleum to a central role in Ecuador's economy, which up until then, had largely been agricultural (2006, pp. 414–415). Indeed, as the state budget relied increasingly on oil revenue, the government borrowed against oil futures to invest in infrastructure projects that generated short-term employment in public works construction and simultaneously boosted popular demand for imported commercial goods. Private sector contractors and developers grew rich and politicians

delivered on campaign promises to boost social services, while the public debt load ballooned. A reporter interviewed for this chapter summed up the overall dynamic:

> There are no winners. Everybody loses and we can't eat cash. Over the short term, the oil companies come up winners. Ecuador does not win because the cash oil brings is spent on short-lived investments. The government is at a loss politically, environmental organizations face persecution, and their leaders end up behind bars, so they are the big losers.

For some time following the oil boom, the Ecuadorian government sought to expand its role in oil extraction activities. However, Kimerling (2006, p. 421) notes that political instability in Ecuador and multinational oil power worked in favor of the oil companies. By the 1980s, successive administrations were turning to increasingly neoliberal programs to bolster oil operations; by the 1990s, fears over depleted oil reserves and low oil prices provided a further push toward policies promoting deregulation and foreign investment (Sawyer 2004, p. 95). According to Kimerling (2012, pp. 240–241) the Ecuadorian government largely relied on Texaco to design, install and operate its own infrastructure, as well as transfer its own technologies; in turn, Texaco agreed to use "modern and efficient equipment" (2012, p. 241). The reality, argues Kimerling, is that "[i]n the environmental law vacuum, Texaco set its own environmental standards and policed itself" (Kimerling 2012). When the Texaco subsidiary's concession ended in 1992, it turned over operations to Petroecuador (McAteer and Pulver 2009; Sawyer 2007). In the 1990s, Texaco and Ecuador signed agreements for environmental remediation of contamination; in return, Ecuador agreed to release Texaco from liability (Kimerling 2012). According to Chevron (Chevron, 2016), the company:

> has never conducted oil production operations in Ecuador. Its subsidiary Texaco Petroleum Co. (TexPet) did . . . . TexPet left Ecuador in 1992, and at that time it fully remediated its share of environmental impacts arising from oil production. The $40 million remediation operation was certified by all agencies of the Ecuadorian government responsible for oversight, and TexPet received a complete release from Ecuador's national, provincial and municipal governments

Communities living near the extractive areas complained about contamination and health problems, along with other degradation to their ways of

life (Sawyer 2007). As time went on, they began pushing back by protesting oil companies' activities (Cepek 2012, p. 408; Finer et al. 2008; Sawyer 2004). Organized movements sought to have their voices heard and hold those accountable for harms they had suffered (Sawyer 2004). Residents argued that oil production activities had substantially contaminated the region, leaving, according to some estimates, many open waste pits and oil wells, various pumping stations, refineries and other infrastructure, with serious levels of toxic wastewater and crude oil discharged or spilled into the region (Cherry and Sneirson 2012; Kimerling 2006; McAteer and Pulver 2009, p. 9; Sawyer 2004). Sawyer (2004, pp. 100–101) discussed the effects of the practices utilized to explore for oil, including detonations of "thousands of pounds of dynamite across inhabited landscapes," dumping of chemicals into huge pits, burning off of crude residue that led to "black rain," and others, which she says saved the company money by lowering production costs with "negligible environmental protections," cheap labor and outdated equipment. Residents claimed health problems (Cepek 2012; Sawyer 2004), including that they "are at a significantly increased risk of developing cancer as a result of their exposure" to the chemicals and waste (Kimerling 2006, p. 477).

Beyond the ill effects for their health, some have argued communities have suffered socio-cultural degradation from contamination, as well. The construction of roads to facilitate transfer of oil and transport of equipment between the rural region and the capital of Quito allowed for an influx of colonists seeking jobs and housing, changing not only the demographic make-up of traditionally indigenous communities, but also impacting the natural resources they depended upon to live (Kimerling 2006; Sawyer 2004). Government funding, including land titles or help extended to colonists who would clear the rainforest (Kimerling 2006, p. 427); by 1990, the population had shifted and the majority were now non-indigenous (Cepek 2012, p. 397). Deforestation increased as new residents cleared land for coffee farms and ranching, and oil workers drilled exploratory wells (Kimerling 2006). According to scholars, there was little concern for cultural degradation or indigenous rights; Kimerling (2006, pp. 427–428) discusses how "[g]overnment officials pledged to 'civilize' native peoples and integrate them into the dominant national culture," couching indigenous resistance to government expansion into their ancestral lands as antagonistic to the institutionalized ideals of "national culture" and policies promoting assimilation and development.

These claims of damages resulted in a lawsuit filed against Texaco in 1993 in the U.S.A., as plaintiffs argued the company made most of its decisions from its New York offices (Sawyer 2007). However, the suit was dismissed by the U.S. courts on the grounds of improper venue. In 2003, the plaintiffs filed a new lawsuit in Ecuador. This time, Chevron was the defendant, as the company had bought Texaco in 2001 (Cherry and Sneirson 2012; Radden-Keefe 2012). Further complicating the case was that it was difficult to file a class action lawsuit in Ecuador, namely because class action lawsuits were a "foreign concept" in Ecuador (Sawyer 2007, p. 70), and also because of the Amazonian residents' historical marginalization from the state, as well as divisions and cultural heterogeneity among indigenous and residents in the region (Sawyer 2007). According to Kimerling (2012, p. 244), the class action lawsuit names plaintiffs from two settler and two indigenous communities, and makes claims on behalf of five other indigenous groups and colonists. Further, the complaint asked the court to have Chevron pay the remediation to a local NGO, Frente de Defensa de la Amazonia (Amazon Defense Front), a decision she characterizes as one made by the plaintiffs' legal team, and one not necessarily "regarded by the affected indigenous peoples as their legitimate representative" (Kimerling 2012).

Chevron's initial claims-making regarding liability revolved around several components: that Texaco was part of a consortium of which the major partner was Ecuador, that the consortium's activities were regulated by the Ecuadorian government, and that all operations complied with then-Ecuadorian law and industry practices; that the parent company Texaco had little to do with the subsidiary's operations; and that remediation efforts in the 1990s the company made were enough to gain a release from the Ecuadorian government from "any further environmental responsibility" (Cherry and Sneirson 2012; Kimerling 2006, p. 484–513). The plaintiffs contended that the release did not preclude personal injury claims or other private actions (Cherry and Sneirson 2012); that petroleum activities and remediation efforts in Ecuador were deficient compared to "reasonable industry standards" (Kimerling 2006, p. 591) and that the land remained significantly contaminated after remediation had ended (Joseph 2012; Kimerling 2006); and that the remediation agreements were conducted in secret and without the participation of the affected parties (Joseph 2012, p. 72; Kimerling 2006, pp. 513–514).

Legal maneuvers ensued, and scientific testing of allegedly contaminated sites was ordered, as was expert testimony. In 2008, a court-appointed

expert recommended Chevron pay billions in clean-up costs. By 2009, estimated damages were skyrocketing, and Chevron was pushing back, publishing a video they claimed implicated public officials in charge of the case with fraud, and questioning the credibility of the Ecuadorian justice system. Celebrities became involved with the plaintiffs' cause, and an award-winning documentary *Crude*, was released in 2009, examining the case largely from the plaintiffs' perspective, showing vivid images of contamination, illness and contentious legal wrangling. In 2010, attorneys for Chevron subpoenaed the director's raw material, arguing that portions of what he filmed could help them in their quest to have the case dismissed and the verdict overturned. In 2011, a U.S. appeals court affirmed that the director would have to turn over the material. That same year, the court in Ecuador ruled that Chevron must pay $19 billion in remedial measures and damages, which was later reduced to $9.5 billion. In early 2013, Argentina froze billions of dollars of Chevron-held assets in relation to the judgment, as Chevron currently has few assets in Ecuador (Nejamkis 2013). By 2016, a U.S. judge blocked the plaintiffs from collecting the judgement in the United States, citing fraud and bribery as tainting the case, a "devastating setback" for the plaintiffs (Parloff, 2016).

However, at the time of this writing, the legal battle took a surprising turn. In July 2016, the Amazon Defense Front suspended its Ecuadorian lead attorney Pablo Fajardo, who had been hailed as a hero in this David and Goliath story and was a recipient of various international awards (Parloff 2016). Chevron filed a lawsuit in the U.S. federal court against the plaintiffs' lead attorney, Steve Donizger, alleging he committed fraud by fabricating evidence, coercing a judge and ghost-writing portions of a trial ruling; they also brought a complaint to The Hague against Ecuador for allegedly denying the corporation a fair trial (Barrett 2016; Hong 2016). In 2016, a U.S. appeals court agreed with a lower court, ruling that the $9.5 billion judgment was unenforceable anywhere in the world, as it was "obtained through fraud and corruption" (Hong 2016). At the time of writing, the plaintiffs were mulling over their options, including taking the case to the Canadian courts to seize Chevron's assets there (Barrett 2016), while environmental groups called it "justice denied," noting that the indigenous residents still live with contamination. In April, the Ecuadorian government began drilling the first of hundreds of new oil wells in Yasuni Park, one of the most pristine ecosystems in the world and home to tribes living in near isolation (Vidal 2016).

We examine this labyrinthine case to better understand the representation of risk in a news story involving vastly unequal power relations: the contestants, a wealthy multinational oil company with vast legal and communication teams, and a group of rural residents who had historically experienced institutional injustice and exclusion. We ask how power intersected with mediated social constructions of risk, how claims of liability and harm were presented, and if and how villains and victors were presented. Such linkages may present new avenues for understanding interfaces of news values with mediated social constructions of environmental justice claims involving risk.

Social Constructions, Frames and Claims

In this case study, we identified and analyzed a total of 370 news articles published by the two news outlets between January 2002 and February 2010, when news coverage of the topic peaked during the height of the court battle (see Fig. 3.1). It is worth mentioning that, in general, international datelines were more prevalent (49.3 percent) than national ones (32.08 percent) and even fewer reports originated in the provinces (17 percent). Except for the coverage published prior to 2006, this trend
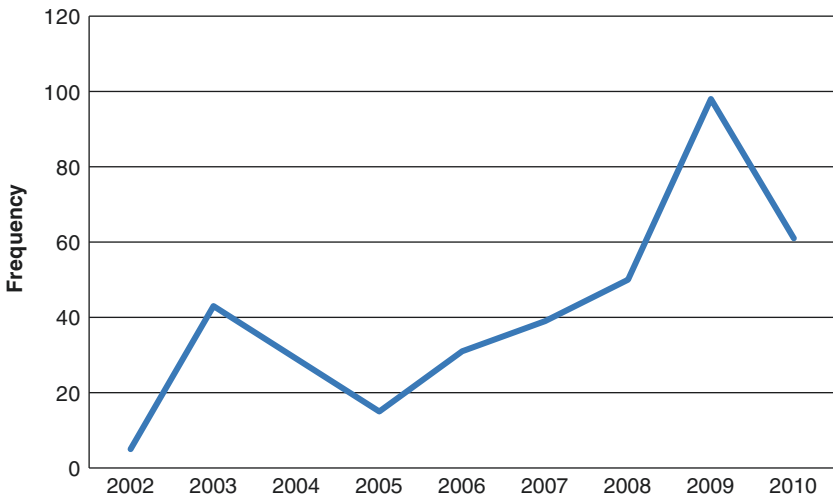

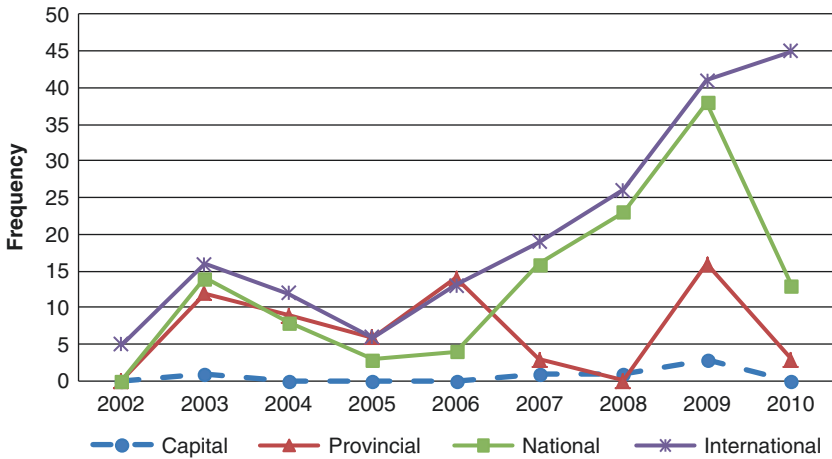**Fig. 3.1** Frequency of articles over time (2002–2010), Ecuador

Fig. 3.2   Article scope over time (2002–2010), Ecuador

was consistent across time (Fig. 3.2). The comparatively lower frequency of news reports originating at the national and local level could reflect the realities imposed by limited newsgathering resources, habitual newsroom practices and routines, or editorial agenda-setting in outlets beholden to corporate or governmental interests.

Overall, the results show that news coverage proved evenly split between original reporting and wire copy: one-half of the stories originated with newspaper staff and correspondents, the other half from wire services, including the Spanish-language service EFE and the Spanish-language version of the Associated Press (AP). Whereas news reports originated predominantly from abroad, the Ecuadorian press relied on wire services to the same extent as their own cadre of reporters. The frequent use of wire copy may be indicative of the practicalities imposed by reduced resources upon editorial decision-making or corporate priorities that impose tight cost controls on content production.

When looking at the data by newspaper, for the most part again, news articles had an international scope, constructing scales that lifted the conflict far from the contaminated lands. Using a modified version of Nisbet's (2009) framing patterns, we observed the legal narrative prevailed (30 percent), followed by items that included multiple frames (16 percent) and the social/environmental justice frame (12 percent), as shown in
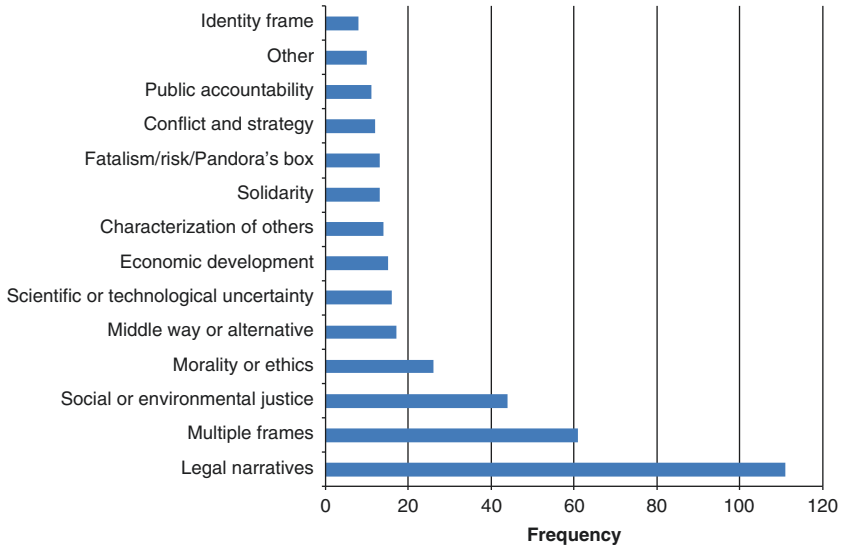
Fig. 3.3 Frames observed in media coverage, Ecuador

Fig. 3.3. Among the least observed were those of fatalistic views of the risk, in terms of little control over what happens (fatalism/risk/Pandora's box).

The multiple frames likewise privileged the dominant categories of legal narratives and the second most observed category, that of social or environmental justice. Other frames (such as economic development, morality or ethics and so on) lagged behind as distant contenders. Risk, as a frame, was the least observed, accounting for only 1.3 percent of the total frames. When disaggregated by year, virtually the same pattern was consistent over time (see Table 3.1), confirming a persistent and predominant narrative pattern that eschewed the notion of risk in favor of the prevalence of a legal frame.

Although the frame varies by newspaper, a legal narrative remains dominant and most common. From a different angle, Fig. 3.4 shows the network structure of the relationship between the frame and the scope of the news articles. Whereas, for the most part, news articles with an international and provincial scope had a legal narrative, articles with national and capital scopes are closely related to frames about social and environmental justice. However, there is more dispersion of the frame of the news for articles with a national

Table 3.1 Dominant frames based on their frequencies over time (2002–2010), Ecuador

| Dominant frames	Year of publication									
	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Legal narratives	3	14	8	5	10	10	5	22	34	
Multiple frames	0	10	13	5	12	6	2	4	9	
Social or environmental justice	1	8	2	0	4	7	13	6	3	
Morality or ethics	1	0	0	0	0	4	0	13	2	
Middle way or alternative	0	0	0	0	0	2	9	4	2	
Scientific or technological uncertainty	0	0	3	2	0	2	1	6	2	
Economic development	0	1	1	0	1	0	4	7	1	
Characterization of others	0	2	0	1	0	0	5	3	3	
Solidarity	0	3	0	0	1	1	0	8	0	
Conflict and strategy	0	1	1	0	0	3	1	3	3	
Public accountability	0	0	1	0	0	1	4	4	1	
Other	0	2	0	1	1	2	0	4	0	
Fatalism/risk/Pandora's box	0	2	0	0	0	1	1	8	1	
Identity frame	0	0	0	0	1	0	1	6	0	
Total	**5**	**43**	**29**	**15**	**31**	**39**	**50**	**98**	**61**	**371**
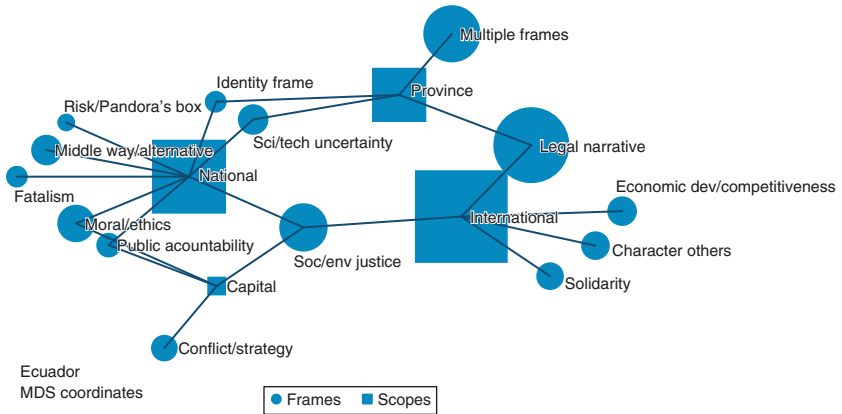
Fig. 3.4 Coincidence analysis: scope and dominant frame, Ecuador

scope. More variation in the frame of the news articles might affect people's perceptions of environmental risk. With regard to the source of the news, while more than half of all articles (53 percent) cited one or two sources, more than one-third (30 percent) failed to cite a single source using direct quotes. Our content analysis seems to indicate that a substantial portion of the stories published by the two news outlets may have frequently relied only on news releases at the expense of interview sources. Reporters and editors interviewed for this chapter coincided in their critique that they lacked access to official sources and trustworthy data. Two respondents separately remarked on the degree to which access to official sources and information has been greatly restricted in Ecuador, a trend seen in other parts of Latin America and elsewhere. One respondent called it "paradoxical" that the government would place a tight lid on the flow of information as it passed new laws to increase transparency. By contrast, oil companies executed concerted public relations campaigns to "bombard [the press] with information every day," as we learned from a reporter interviewed for this chapter.

Given this scenario, we set out to operationalize who gained entry to the mediated construction of risk with the use of a proxy for the type of sources quoted in the articles. To this end, primary and secondary sources were considered in the analysis, keeping in mind that the principal actor in the articles is an alternative measure for who is influencing the framing of the news. We categorized principal actors
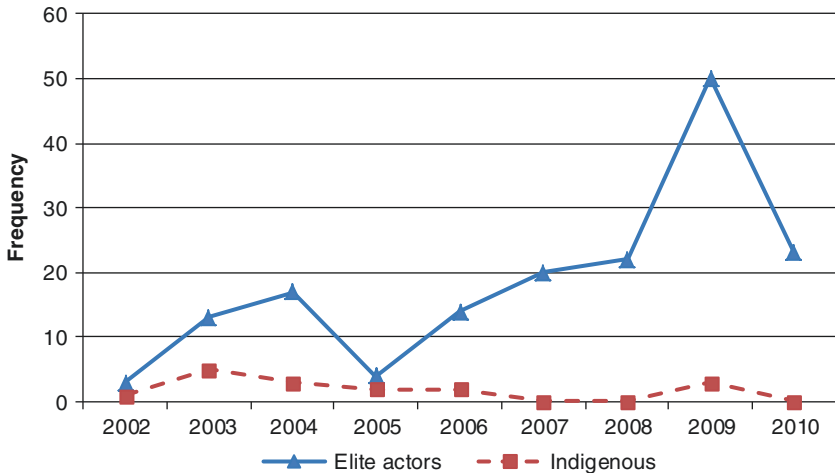
Fig. 3.5   Primary sources quoted in articles over time (2002–2010), Ecuador

according to the primary function and rank in work that an individual held in government, the armed forces, the private sector, civil society, as representatives of international agencies or foreign governments and international civil society, or legal, expert or indigenous sources. Our analysis found that the primary sources in Ecuadorian news accounts conformed to widely observed patterns that show a focus on elite actors. Almost one-half (45 percent) of all first sources were primarily legal representatives, private sector agents, or representatives and officials of the government of Ecuador; only 4 percent of the sources were indigenous groups. Fig. 3.5 shows a clear positive trend of elite actors as the principal source, compared to a virtually negative trend in the case of indigenous groups as the main source of the news when the data are disaggregated by year.

Our analysis of secondary sources had a similar outcome: a total of 22 percent of all secondary sources corresponded to the same three categories as those who appear as primary sources: they acted as legal representatives, or belonged either to the private sector or the national government of Ecuador. Indigenous groups only represent 3 percent of all secondary sources, and post-2004 the number of secondary sources that corresponded to elite groups exceeded that of indigenous groups (see Fig. 3.6). This result could be interpreted in multiple ways. On the one hand, we surmise that newsroom
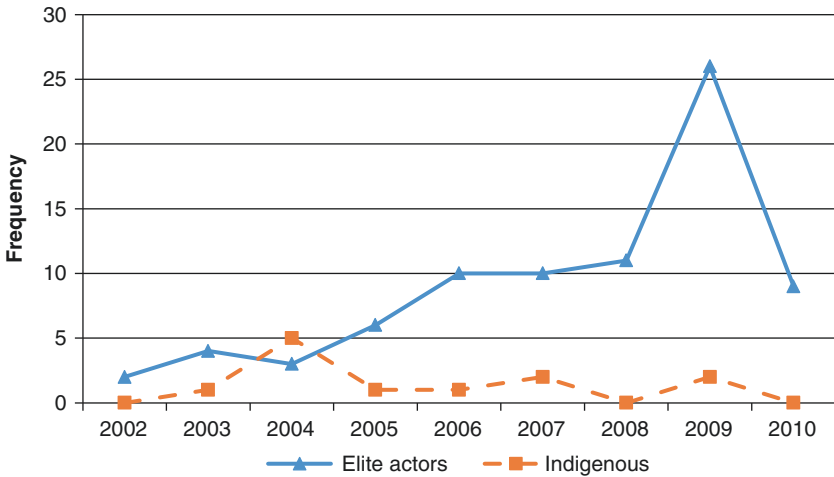
Fig. 3.6 Secondary sources quoted in articles over time (2002–2010), Ecuador

routines, habits and procedures privilege access to elite players in cosmopolitan areas where relative ease of access, compounded by the readiness of public relations staffers and the deadline demands of the 24/7 news cycle, result in overexposure of elite players in mainstream media. This may serve as evidence for Bennett's (1990) indexing hypothesis. On the other hand, the higher frequency of elite players as principal actors might also reflect patterns of political clientelism that erode democratic representation (Hilgers 2012) or the persistence of narrative patterns inherited from authoritarian, corporate or governmental practices.

These findings provide evidence that the most affected group in this conflict, that is, the indigenous groups, were excluded in some way from the mediated construction of risk. The fact that most of the sources were related to groups with political and economic power provides an understanding of how the framing of the news was constructed. The findings with regard to the principal actors in the news accounts corroborate the pattern. The private sector, the national government of Ecuador and the legal representatives are again the most cited actors in the articles analyzed. The coverage of principal actors and inclusion of sources followed a similar path over time: corporate actors (Chevron spokespeople and legal team) and national government actors dominated the coverage, while much less space was devoted to the claims put forth by indigenous groups or other
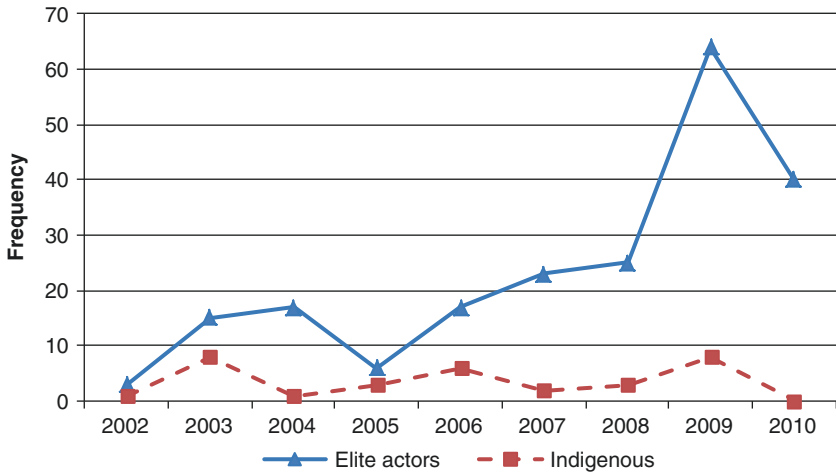
Fig. 3.7   Principal actors in articles over time (2002–2010), Ecuador

civil sector actors (see Fig. 3.7). The predominance of these particular categories of principal actors belies a pattern of source access and citation that relies on established authority; this limited news sourcing privileges elite voices and minimizes alternative or competing discourse, in ways that contribute to reinforce hegemonic narratives through frequent and continued repetition over time (Bennett et al. 2004).

In order to further corroborate a positive relationship between the sources and the actors in the articles and the dominant frame in the news, we performed a chi-squared test of independence between dominant frame and each of the proxies for those who dictated the frame. Findings are as follows:

- There is a significant relationship between the primary source of the news and the dominant frame, χ^2 (2, $N = 261$) = 275.25, $p = 0.00$.
- There is no significant relationship between the secondary source of the news and the dominant frame, χ^2 (2, $N = 125$) = 194.24, $p = 0.25$.
- There is a significant relationship between the principal actor in the article and the dominant frame, χ^2 (2, $N = 371$) = 443.12, $p = 0.00$.

These findings provide sufficient statistical evidence that there is a significant relationship between those who gained entry to the media and the dominant frame of a legal narrative.

Risk Words

We found actual risk words appeared very little in a relevant sense in our original sample. The two risk words and their variations that appeared the most, "contamination" and "health," were found in only 48 articles. Therefore, we decided to qualitatively analyze the claims surrounding the risk issues, and how the risk was presented in terms of those claims, as such a small subsample would not lend itself to robust statistical analysis. Indeed, more than a quarter of the subsample had risk only as background to the story, as in the following example:

> A group of 30,000 settlers accuse the company of damage to the environment and to health, of not complying with environmental regulations and of disposing into the rivers and tributaries some 1.8 billion gallons of toxic water, the product of petroleum exploration during its operations in Ecuador between 1964 and 1992. (AP 2007)

But risk and hazard claims came in other formats. Particularly toward the beginning of our sample, they took the form of personal accounts of health or environmental loss or damage, as Beck (1992, p. 61) noted, the "voices of the side effects":

> Rosa Moreno, of San Carlos parish, told how two members of her family have died of cancer. "I lost my father-in-law and father to lymphoma. My brother-in-law is disabled; like many people are sick from consuming contaminated food and water." (*El Comercio* 2003)

The period in which courts ordered testing of contamination and expert testimony associated with it (2004–2006) presented a shift from anecdotal quotes or description that depicted harm to the mediated articulation of the struggle over the credibility of massive testing for contamination. At this point, the narrative of those claiming harm shifted to institutional and celebrity sources. For example, the claimants' legal representatives gained traction in the news. Other insertions included national or international power actors. Seven articles featured inclusions of celebrities, international NGOs, international filmmakers, or national power actors such as President Rafael Correa. International spotlights perhaps served to provide credibility, buttressed the plaintiffs' claims and picked out the "moral responsibility" dimension largely lacking in the courtroom bickering. When national power actors now spoke about the
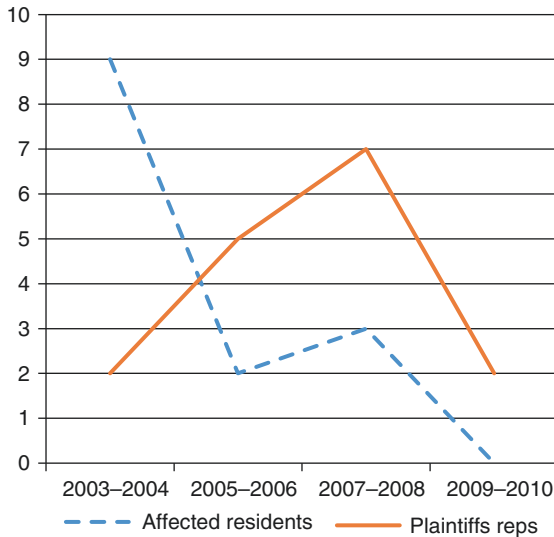
Fig. 3.8 Quotes from risk claimants versus plaintiffs and their representatives, Ecuador

case, they did so in nationalistic terms, speaking on behalf of the country, in "we" terms, calling the plaintiffs "compatriots" (*El Universo* 2007, 2009; see Fig. 3.8).

All in all, the least mentioned hazard was that of the cultural harm suffered by the inhabitants, via the loss of their ancestral homes through contamination that made their soils, waters and sediments hazardous, as well as through infrastructure development and increased numbers of homesteaders arriving in the region (Sawyer 2004). These accounts of cultural harms appeared only as a brief mention in just four stories (less than 1 percent of the sample), and only in one did it appear as a central focus, in a profile of one of the lead attorneys for the plaintiffs.

Chevron's counterclaims also filled articles, primarily via quotes from media representatives and press releases from Chevron (see Fig. 3.9). Quotes sought to set definitions and define terms, undermining scientific and expert legitimacy. Chevron representatives consistently argued that Texaco had complied with all governmental regulations and
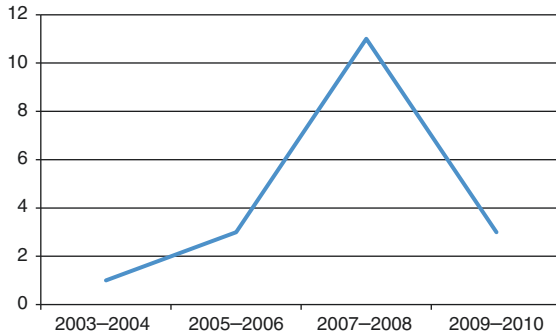
Fig. 3.9 Articles with Chevron quotes questioning scientific/legal credibility, Ecuador

therefore had not engaged in illicit contamination, or, as in one article, no contamination at all:

> [The Texaco attorney] added that the operations that they did here were authorized by law … the plaintiffs artificially want to make it seem as if the oil exploration and exploitation was a crime, this is an industrial exploitation permitted by law: this is not contamination. (*El Universo* 2006)

The gas company took its denial of the validity of the reports about soil and water tests in the contested areas to the media, and focused on alleged errors in the science, the testing patterns and sites to call the entire report into question. Other counterclaims included questioning the credibility of the plaintiffs, their testimony, their legal team, and the integrity of the Ecuadorian justice system:

> Chevron-Texaco stated today in a release that it will ask the Nueva Loja Superior Court to strike the report, which it considers "evidently biased." The oil company "objects to the entirety of the report" for the "lack of competency and expertise of [the expert], his partiality in favor of the plaintiffs, and the permanent violation of the court orders," added the note. (*El Comercio* 2008)

Only a few counterclaims originated from plaintiffs' representatives, who alleged fraud on the part of Chevron personnel. Altogether, claims about

judicial corruption and scientific error or uncertainty were observed in 35 percent of the articles in the subsample.

"There are No Winners"

In this chapter, we asked what happened to the risk discussion at the heart of events and conflicts that turn into international environmental disputes carried out in mediated arenas. We found that on the whole, the Ecuadorian news reports we studied responded as actors following elite actors' cues, rather than as "a set of institutional actors responding to the changing terms of play in different ways" (Murdock et al. 2003, p. 170). The most observed frames, principal actors and sourcing patterns reinforced the centrality of trust, legitimacy, precedence and visibility that are associated with mediating risk information to the public (Murdock et al. 2003). The litigation and the contestants' strategies became mediated battlegrounds where claims of loss, fraud, scientific error and pain were amplified and repeated, and where the uncertainty associated with risk came up against prolonged and sustained legal strategies seeking to undermine evidence and credibility, and the struggle to define risk and hazard became contestations in a wandering legal drama. In one-third of the articles, risk was linked to accusations of scientific or legal fraud, as Chevron's attorneys gained easy media access to have their claims heard that the scientific evidence was suspect, the experts were biased, the plaintiffs and their team were staging a circus, or the entire legal system did not function properly. The winning frame, legal narrative, managed to get the most visibility and gained precedence over the others perhaps because of the ease with which journalists could follow the search for blame, as well as because it produced a clear winner and loser. Among the least published were any suggestions of compromise (middle way/ alternative) or solidarity, as accusations and aggression in the context of a bitter legal battle took hold.

As Waisbord (2002) noted, risk is visible only if those in authority see it as such. So as time went on, reporting became more exclusionary toward representative members of the communities impacted by the contamination, and increasingly focusing on legal and corporate representatives. The residents of the contaminated lands did not gain visibility or precedence with the same frequency as the defendant and court and other governmental actors, either in terms of principal actors and sources or as the originators of the claims, nor as primary definers of the risk. Their stories were heard, particularly in the earlier years of the second lawsuit, with vivid descriptions

of suffering, but not generally as first or primary sources. Scarcely heard at all were references to cultural dimensions of risk and hazard, an important component of a story about damage to indigenous peoples' ancestral lands. News coverage was shaped by journalism's well-documented reliance on institutional actors, as well as reflecting organizational hierarchies seen throughout Latin America since colonial times (Alvarez et al. 1998), although strong movements had emerged in Ecuador in recent years that had changed indigenous political standing (Sawyer 2007).

Risk and hazard were increasingly associated with struggles over credibility (legitimacy and trust), the definition of risk, and the voices seeking to undermine scientific findings and expert testimony. Here, the environmental degradation and resulting human health hazards resulted in contestations over the validity of the claims to risk and hazard, comprising both a legal maneuver and a strategic manipulation of journalistic reliance on press releases and quotes from company reps. With Chevron employing what some termed a "scorched-earth public relations and legal strategy," the corporation's claims figured largely in the discourse, either in terms of counterclaims to statements published or as various articles devoted to reviewing statements made via press releases or spokespeople. When authoritative people reported the hazard, Chevron's legal team and myriad spokespeople challenged scientific and expert findings of contamination as error-ridden, lacking in certainty or even fraudulent, as the battle wore on and hundreds of thousands of court documents piled up. Such challenges to scientific findings are a strategy observed in other disputes, such as those over climate change (e.g. Boykoff 2007; Boykoff and Boykoff 2004; Demeritt 2006; Dessler and Parson 2010), and have implications for other case studies of risk and news coverage of claims. Paralleling the challenges to science were statements regarding the credibility of the Ecuadorian legal system, or the plaintiffs themselves.

Such repetition of challenges to scientific findings or institutional integrity may have implications for the trial outcome and beyond. Indeed, Kimerling (2012, p. 245) argued that the choice of mediated claims and discourse surrounding Chevron's claims of judicial and legal misconduct and error may have negatively impacted the plaintiffs' credibility and chances for success outside of Ecuador, as well as leaving little room for those who dealt with the risk and hazard to ameliorate their suffering and loss:

> For now, this new chapter in the litigation appears to be shifting much of the focus of the legal and political contest from allegations of Texaco's

misconduct to allegations of misconduct by the [plaintiffs'] lawyers and activists . . . and from concern about the rights of the affected communities to the rights of Chevron. . . . In addition, it has eclipsed the situation on the ground—where environmental conditions continue to deteriorate . . . and no one is accepting responsibility.

Such choices of narrative constructions have implications for public sphere debate, a place where, as in the Habermasian (1989) ideal of the public sphere as a key space to develop public opinion and shape outcomes, civic interests are promoted. In this case, the definition and framing of risk and hazard, in a mediated narrative that was largely framed around a court battle, gained traction in terms of human interest and social and environmental justice in certain contexts, and was associated with the components of trust and legitimacy, key aspects of the mediated competition for public opinion and outcome. Such transformations in the ongoing narrative may find partial explanation in terms of what Sawyer (2004, p. 222) calls the "reinscription of power," where "power inequalities reconfigure themselves and re-insinuate their effect in always problematic, punctuated, often unpredictable ways."

The story of a group of rural residents who sue a powerful multinational corporation presents interesting avenues for thinking about risk, culture, power and environment, and how these themes play out in the news. The struggle to control definitions and win over public opinion intersects with news values, powerful interests or spontaneous events, among others. Institutional news pegs, focusing on "conflicts and episodic events," as Waisbord and Peruzzotti (2009, p. 706) noted in their study of Argentine press coverage of risk, and following the scripts of powerful actors can often provide the context in which hazards to health, environmental or society are discussed. In our study of the Chevron case in Ecuador, we found that legal arenas may provide ground for the study of actors, responsibility and credibility, as risk claims are picked up by media and repeated over time. These iterations have significance for public engagement, agency and debate over issues associated with risks to environmental and human health, particularly if they allow disproportionate access, legitimacy and amplification to certain voices involved in those debates over others.

Powerful sources have powerful voices. When those sources make claims questioning the scientific validity or the credibility of other claims, for example, such perspectives may be observed in media content. On the

other hand, the voices of the residents of the region, a large heterogeneous group of indigenous peoples from various tribes, along with colonists and other residents were replaced by media-appointed representatives. Journalists working to tight deadlines and with little time may depend too heavily on manufactured statements churned out by a multinational company or by those appointed as "representatives" with ready access to media channels, rather than sorting through the science or traveling large distances to speak with communities that are mainly remote from major urban areas. In the case of Chevron, risk became translated into issues relating to scientific and legal credibility, social distribution and responsibility. These claims were articulated in an increasingly combative struggle played out over international airwaves, and were presented to balance scientific findings, expert testimony, and personal observations and statements supporting the plaintiffs' claims. Such discursive strategies have been employed elsewhere, and this case serves as a comparison in an international context.

References

Adam, B. (2000). The media timescapes of BSE News. In S. Allan, B. Adam, & C. Carter (Eds.), *Environmental risks and the media* (pp. 117–129). London: Routledge.

Adam, B., & Van Loon, J. (2000). Introduction: Repositioning risk; The challenge for social theory. In B. Adam, U. Beck, & J. Van Loon (Eds.), *The risk society and beyond: Critical issues for social theory* (pp. 1–32). London: SAGE.

Alvarez, S., Dagnino, E., & Escobar, A. (1998). *Cultures of politics/politics of cultures: Re-visioning Latin American social movements.* Boulder, CO: Westview.

Anderson, A. (1997). *Media, culture and the environment.* Brunswick, NJ: Rutgers University Press.

Associated Press (AP). (2007, September 3) Chevron Texaco Dice que Juicio en Ecuador Está Viciado [Chevron Texaco says the Judgment in Ecuador is Corrupted]. eluniverso.com. Accessed September 28, 2012.

Barrett, P. (2016, August 8). Chevron wins big in $9.5 billion oil pollution case. But it's not over yet. bloomberg.com. Accessed August 20, 2016.

Beck, U. (1992). *Risk society: Toward a new modernity.* London: SAGE.

Bennett, W. L. (1990). Toward a theory of press-state relations in the United States. *Journal of Communication*, *40*(2): 103–125.

Bennett, W. L., Pickard, V. W., Iozzi, D. P. et al. (2004). Managing the public sphere: Construction of the great globalization debate. *Journal of Communication*, *54*(3): 437–455.

Blumer, H. (1971). Social problems as collective behavior. *Social Problems*, 18(3): 298–306.

Boykoff, M. (2007). Flogging a dead norm? Newspaper coverage of anthropogenic climate change in the United States and United Kingdom from 2003 to 2006. *Area*, 39(2): 470–481.

Boykoff, M., & Boykoff, J. (2004). Balance as bias: Global warming and the US Prestige Press. *Global Environmental Change*, 14: 125–136.

Cepek, M. (2012). The loss of oil: Constituting disaster in Amazonian Ecuador. *The Journal of Latin American and Caribbean Anthropology*, 17(3): 393–412.

Cherry, M., & Sneirson, J. (2012). Chevron, greenwashing, and the myth of "green oil companies." *Journal of Energy, Climate & Environment*, 3: 133–154.

Chevron.com. (2016). Ecuador lawsuit: Background. https://www.chevron.com/ecuador/background/. Accessed December 23, 2016.

Demeritt, D. (2006). Science studies, climate change and the prospects for constructivist critique. *Economy and Society*, 35(3): 453–479.

Dessler, A., & Parson, E. (2010). *The science and politics of global climate change: A guide to the debate*. Cambridge: Cambridge University Press.

El Comercio. (2003, June 17). El impacto de Texaco aún se siente en la Amazonia [Texaco's impact is still felt in the Amazon]. elcomercio.com. Accessed May 5, 2011.

El Comercio. (2008, April 1). USD 8300 millones en daños en Amazonia por petrolera Texaco [$8.3 billion in damages in the Amazon for Texaco]. elcomercio.com. Accessed September 28, 2012.

El Universo. (2006, March 8). Denuncian contaminación de Texaco en selvas de Ecuador [They denounce Texaco's contamination in the Ecuadorian jungles]. eluniverso.com. Accessed September 28, 2012.

El Universo. (2007, April 27). Correa acusa a Texaco y respalda demanda [Correa accuses Texaco and backs lawsuit]. eluniverso.com. Accessed September 28, 2012.

El Universo. (2009, July 1). Ecuador anuncia fallo a favor en demanda Chevron [Ecuador announces ruling in favor of the Chevron demand]. eluniverso.com. Accessed September 28, 2012.

Finer, M., Jenkins, C., Pimm, S., Keane, B., & Ross, C. (2008). Oil and gas projects in the western Amazon: Threats to wilderness, biodiversity, and indigenous peoples. *PLoS One*, 3(8): 1–9.

Habermas, J. (1989). *The structural transformation of the public sphere*. Cambridge, MA: MIT Press.

Hansen, A. (1993). *The mass media and environmental issues*. New York: St. Martin's Press.

Hansen, A. (2000). Claims-making and framing in British newspaper coverage of the "Brent Spar" controversy. In S. Allan, B. Adam, & C. Carter (Eds.), *Environmental risks and the media* (pp. 55–72). London: Routledge.

Hilgers, T. (Ed.). (2012). *Clientelism in everyday Latin American politics.* Basingstoke: Palgrave Macmillan.

Hong, N. (2016, August 8). Chevron wins ruling blocking enforcement of $9.5 billion Ecuador judgement. wsj.com. Accessed August 20, 2016.

Joseph, S. (2012). Protracted lawfare: The tale of Chevron Texaco in the Amazon. *Journal of Human Rights and the Environment*, 3(1): 70–91.

Kasperson, R., Renn, O., Slovic, P., Brown, H., Emel, J., Goble, R., . . . Ratick, S. (1988). The social amplification of risk: A conceptual framework. *Risk Analysis*, 8(2): 178–187.

Kimerling, J. (2006). Lands, liberties, and legacies: indigenous peoples and international law: Regional issues in the international indigenous rights movement: Transnational operations, bi-national injustice: Chevrontexaco and indigenous Huaorani and Kichwa in the amazon rainforest in Ecuador. *American Indian Law Review*, 31: 445–743.

Kimerling, J. (2012). Huaorani land rights in Ecuador: Oil, contact and conservation. *Environmental Justice*, 5(5): 236–251.

Major, A., & Atwood, L. E. (2004). Environmental risks in the news: Issues, sources, problems and values. *Public Understanding of Science*, 13: 295–308.

Mazur, A. (2009). American generation of environmental warnings: Avian influenza and global warming. *Research in Human Ecology*, 16(1): 17–26.

McAteer, E., & Pulver, S. (2009). The Corporate Boomerang: Shareholder transnational advocacy networks targeting oil companies in the Ecuadorian Amazon. *Global Environmental Politics*, 9(1): 1–30.

Murdock, G., Petts, J., & Horlick-Jones, T. (2003). After amplification: Rethinking the role of the media in risk communication. In N. Pidgeon, R. Kasperson, & P. Slovic (Eds.), *The social amplification of risk* (pp. 156–178). Cambridge: Cambridge University Press.

Nejamkis, G. (2013, January 30). Argentine Court upholds freeze on Chevron assets. *Reuters.com*. http://www.reuters.com/article/us-chevron-argentina-idUSBRE90T1AI20130130. Accessed December 23, 2016.

Nisbet, M. C. (2009). Communicating climate change: Why frames matter for public engagement. *Environment: Science and Policy for Sustainable Development*, 51(2), 12–23.

Parloff, R. (2016, September 11). Here's why Ecuador's $9.5 billion judgment against Chevron is headed to Canada. *Fortune.com*. http://fortune.com/2016/09/11/chevron-pollution-amazon-ecuador-canada/. Accessed December 23, 2016.

Radden-Keefe, P. (2012, January 9). Reversal of fortune. NewYorker.com. http://www.newyorker.com/reporting/2012/01/09/120109fa_fact_keefe?currentPage=all. Accessed September 27, 2012.

Robinson, E. E. (2002). Community frame analysis in Love Canal: Understanding messages in a contaminated community. *Sociological Spectrum*, 22: 139–169.

Sawyer, S. (2004). *Crude chronicles: Indigenous politics, multinational oil, and neoliberalism in Ecuador*. Durham, NC: Duke University Press.

Sawyer, S. (2007). Empire/multitude—State/civil society: Rethinking topographies of power through transnational connectivity in Ecuador and beyond. *Social Analysis, 51*(2): 64–85.

Southgate, D., & Wasserstrom, R. (2009, June). *Oil development, deforestation, and indigenous populations in the Ecuadorian Amazon*. Paper presented at the 2009 Latin American Studies Association Meeting, Rio de Janeiro, Brazil.

Singer, E., & Endreny, P. M. (1993). *Reporting on risk: How the mass media portray accidents, diseases, other hazards*. New York, NY: Russell Sage Foundation.

Vidal, J. (2016, April 4). Ecuador drills for oil on edge of pristine rainforest in Yasuni. guardian.co.uk. Accessed August 20, 2016.

Waisbord, S. (2002). Journalism, risk and patriotism. In B. Zelizer & S. Allen (Eds.), *Journalism after September 11* (pp. 201–220). London: Routledge.

Waisbord, S., & Peruzzotti, E. (2009). The environmental story that wasn't: Advocacy, journalism, and the *asembleísmo* movement in Argentina. *Media, Culture & Society, 31*(5): 691–709.

Brazil and the Belo Monte Dam: "The Amazon Is Ours"

The cascading waterfalls of the Xingu River could not stop the incursions of Jesuit missionaries and other European adventurers who set out to conquer the Amazon tributary in the seventeenth century. By 1250 the nearly impenetrable vast forested region was been home to dense indigenous settlement, a population catastrophically decimated by disease or enslavement in the aftermath of the arrival of the first Europeans (Heckenberger et al. 2003; Steward 1948). Successive land raids led by *bandeirantes* (flag-bearing slave raiders and gold prospectors commissioned by the Portuguese crown) stretched westwards the original boundaries defined under the 1494 Treaty of Tordesillas. Following Karl von den Steinen's 1884 excursion from Cuiabá into the Xingu, waves of explorers and settlers solidified the territorial land grab through the practice of *uti possidetis* (land ownership by virtue of possession, rather than documented claim). Centuries later, the vast inland waters of Amazonia, not only its land, now draw scores of new settlers, who arrive on excavators topped by corporate flags and loaded with grandiose plans to conquer untamed majestic rivers and turn them into gold.

In the 1980s, as its foreign debt service payments skyrocketed along with the price of oil, Brazil stepped up incentives aimed at industrialization and export promotion. At the time, 95 percent of the country's electricity was sourced from hydroelectric power, the largest portion originating from the Itaipu dam, then the world's third-largest hydroelectric plant, which straddles

the Paraná River on the Paraguay border. The two countries share equally the 14,000 megawatts generated by Itaipu, and Brazil buys back surplus electrical power left unused by its less industrialized neighbor. In response to the economic crisis and rising oil prices, government planners looked to hydro-electric projects to forge the path to energy self-sufficiency, and a less costly alternative to nuclear power plants (Spears 1988). The most ambitious of these hydroelectric projects consisted of five reservoirs on the Xingu River that would feed a sixth, Belo Monte, expected to be the world's fourth-largest dam, and one that some feared "would lead to disastrous social and environmental impacts in exchange for little improvement for the Brazilian people" (Fearnside 2006, p. 8). Announcement of the vast scale of the colossal undertaking unleashed three decades of protest, persistent lobbying, legal wrangling, and an enduring controversy that delayed the start of construction for two decades.

The Xingu River runs 2,000 kilometers (1,243 miles), north from the state of Mato Grosso through the state of Pará, into the Amazon River south of the Guarupá island. Dams built in the Amazon basin, where the terrain gradient levels are low, must flood wide swathes of land to consistently generate water volume flow sufficient to power hydroelectric generators. Unlike the Itaipu dam, where water drops 120 meters (the equivalent of a 65-floor building) to power the turbines, the Xingu River water flow drops 87.5 meters at its highest fall line, in Volta Grande. Multiple legal injunctions, organized protests, and international outcry greeted reports about the extent of flooded area: as initially proposed, the complex of seven hydroelectric dams on the Xingu River would flood 18,000 square kilometers. The reservoirs of the six smaller dams would ensure the water flow through the dry season for the operation of the larger Belo Monte, which on its own is forecast to flood between 350 square kilometers (an area larger in size than the entire city of Philadelphia) and 516 square kilometers, or the equivalent of three times the Washington D.C. area. At least half of the compromised area consists of forested land in the municipalities of Altamira, Anapu, Brasil Novo, Senador José Porfírio and Vitória do Xingu in the state of Pará, already the site of the most extensive deforestation currently occurring in Brazil. The Belo Monte dam was forecast to produce 4,000 megawatts on average, and to scale up to 11,000 megawatts at peak capacity.

As early as October 1975, Eletronorte, the electric utility subsidiary of government powerhouse Centrais Elétricas Brasileiras (known by the acronym Eletrobras), had tasked engineers from a privately owned company associated with developer Camargo Côrrea to map potential sites for

hydroelectric dams in Amazonia. The results appeared in a report that inventoried the hydraulic potential of the Xingu River basin (*Inventário Hidrelétrico da Bacia Hidrográfica do Rio Xingu*) and recommended construction of seven dams in an area that is ancestral home to 12 indigenous groups, comprising more than 7,000 tribal members, and the site of Brazil's first indigenous reservation, established in 1961. The ensuing technical reports, released in December 1987, called for 165 new hydroelectric plants to be built nationwide by 2010, 40 of them in the region designated Amazônia Legal, an area that amounts to 60 percent of Brazil's total land mass and is comprised of nine northern and central states: Acre, Amapá, Amazonas, Goiás, Maranhão, Pará, Rondonia, Roraima, and part of Mato Grosso. The project, which won government approval in 1988, was to be funded by the Inter-American Development Bank (IDB) and placed priority on the two largest: Babaquara (6,600 megawatts) and Kararaô (11,000 megawatts). The name of the latter, a word that carries religious meaning for the Kaiapó, added insult to injury for the tribe whose territory it appropriated (Fearnside 2006). Warned that the word spelled "war" in the indigenous Tupi language, Eletronorte hastily rechristened the dam Belo Monte, Portuguese for "beautiful hill."

The controversial licensing and construction of the colossal hydroelectric project set in a remote jungle region is a complex story, yet it has yielded mostly succinct news coverage that failed to report in-depth on extensive multiple impacts predicted to range from the extinction of five species of ornamental fish prized by aquarium aficionados worldwide to fluctuations in rainfall levels and hydrological cycles that would disrupt weather patterns throughout the South American continent. This chapter examines how Brazilian news media narrated a gargantuan story of environmental risk in a highly politicized environment.

Unable to See the Forest for the Trees

Brazilian news coverage about the construction of what is scheduled to be the world's fourth-largest hydroelectric dam has conformed to established patterns of sporadic spot news reporting sourced primarily through official, elite and institutional actors. Over the course of three decades, mainstream news media accounts collapsed the vast scale and complexity of the topic into overly simplified mediated representations of intensely contested and politicized spaces. In a highly concentrated media market, where five families control 70 percent of mainstream media outlets,[1] the

editorial agenda repeatedly privileged coverage of breaking news about political or economic topics within sight of metropolitan corridors of power.

News editors agree that reporting about environmental matters surged in Brazil in the aftermath of the 1992 Earth Summit, the United Nations Conference on Environment and Development held in Rio de Janeiro that set the framework for the curb on greenhouse gas emissions, a precursor to the 1997 Kyoto Protocol. Even prior to the Rio Earth Summit, news of the Brazilian government's ambitious strategy for a network of hydro-electric plants to be built in Amazonia attracted the attention of international news media in 1988 when Kaiapó leaders Paulinho Paiakan and Kube-I traveled to Washington D.C. to hold accountable officials at the IDB, which authorized U.S. $16 billion in financing for the construction of Belo Monte. The protest, staged by Brazilian tribal leaders clad in colorful feathered headgear, dried up financing from international agencies, as lenders realized that the threat to flood as much as 17 million acres (an area almost the size of Ireland) and resettle 12 indigenous tribes away from their reservations constituted an infringement of the indigenous rights spelled out in the Brazilian Constitution of 1988. Mounting international public attention prompted more than 1,000 indigenous people to attend a historic gathering in Altamira in February 1989 where celebrity appearances by rock musician Sting and Body Shop founder Anita Roddick drew media attention to the threat posed to tribal nations. In a dramatic gesture, captured by television news cameras and broadcast worldwide, Kayapó tribeswoman Tuíra brandished a machete against the face of Eletronorte director José António Muniz Lopes and the construction of Belo Monte screeched to a halt.

A follow-up report about the government's plan to tap potential power of the Amazon basin through multiple hydroelectric dams appeared in the front page of *The New York Times Week in Review*. The evocative lead, "The rising waters are already lapping at the treetops and soon a new expanse of rainforest will completely disappear in Brazil's rush for energy" (Simons 1989, 1) hit as a "thunderclap," according to Thomas Lovejoy, a foremost expert of Amazonia. The biologist responsible for coining the term "biodiversity" credited Simons for jumpstarting public awareness about the extensive damage that could result from Brazil's "simple minded" plan meant to address an energy crisis rooted in "environmental mismanagement and overall mismanagement" (T. Lovejoy, personal conversation, May 19, 2015).

Whereas at first the Brazilian news media coverage of Belo Monte focused primarily on the auction that accepted bids from the nation's largest engineering and construction companies, once development got under way and ignited protests the coverage shifted to spot news reports about conflagrations organized by indigenous peoples and civil society representatives, who blocked roads, invaded building sites, took hostages and brandished weapons at government and corporate personnel. The sporadic and episodic nature of the news stories that ensued contributed shallow coverage sourced primarily from government officials, corporate sources and public relations personnel who fed pre-packaged storylines to reporters at news desks in Brasilia, Rio de Janeiro and São Paulo, thousands of kilometers removed from the site of the hydroelectric dam. Inevitably, the news coverage that emerged in the absence of systematic reporting, local news-gathering, or assigned beats remained intermittent, short in word count and cursory in content. A senior staff reporter at a major news daily with national circulation summed up the newspaper's overall reporting about environmental matters: "there are lots of trees, but little forest."

The standout exception to the prevailing trend was *Folha de São Paulo*'s award-winning digital report "Tudo Sobre a Batalha de Belo Monte" (All about the Battle over Belo Monte), a lengthy news feature modeled on the immersive online format pioneered in 2012 by *The New York Times* in "Snowfall: The Avalanche at Tunnel Creek." The *Folha de São Paulo* multimedia special report published online in December 2013 contained 55 photos, 24 short videos and 18 infographics compiled by a team of 19 journalists, five of whom spent three weeks on site in Altamira. Each of the five chapters in that report covered a major aspect of the story: the construction of the hydroelectric dam, the environment, civil society, indigenous peoples, and a historical overview of the project dating back to 1972. One of its authors, interviewed for this chapter, explained that the text was split into chapters to render it more accessible to readers because, "nobody in Brazil reads long-form news." Hailed by media critics at home and abroad for its groundbreaking multimedia format, the *Folha de São Paulo*'s report on Belo Monte was nonetheless criticized for its limited circulation; unlike *The New York Times*' "Snowfall," "*Tudo Sobre a Batalha de Belo Monte*" ran exclusively online. One of the reporters responsible for the news coverage credited the newspaper's innovative use of multimedia for the ensuing short-lived flurry of news about the controversial dam, which he dubbed a "brush fire" amid more typically intermittent reporting common to Brazilian news coverage of environmental topics.

Indeed, our analysis of 375 news articles published in *O Globo* and *Folha de São Paulo* in the years 2013 and 2014 found that news accounts about Belo Monte appear sporadically, infrequently carry photos, and tend to skirt the complexity of the issue in short-form stories (588 words of copy on average). Several editors and reporters blamed reduced budgets, staff cuts, limited travel funds, and editorial agendas that privilege political and economic breaking news as principal reasons for decreased news coverage about the environment. Absent systematic reporting and regular assigned beats on the topic, environmental issues become subsumed within the wide range of topics covered by either science or health desks, and are relegated to the status of occasional features.

Our review of datelines in news reports about Belo Monte found that the mainstream press rarely reported on site from Amazonia; the special report in *Folha de São Paulo* and its follow-up segment one year later were the exceptions that prove the rule. The news stories examined during our content analysis were, for the most part, filed from newsrooms located in the metropolitan urban centers in Brasilia, Rio de Janeiro and São Paulo (see Fig. 4.1). Inasmuch as the reporting originated from urban centers, it repeatedly relied on readily accessible sources associated with government and industrial elites who stood to gain politically, financially (or both) from the construction of the hydroelectric project. Nevertheless, it is evident that the distance between cosmopolitan newsrooms and the shores of the Xingu compounded multiple operational challenges that thwarted journalists' efforts to compile comprehensive news reports. In a setting where highly concentrated media, political interests, governmental short-comings and systemic inequality conspired to limit effective news-gathering, a narrative emerged that privileged a reductionist discourse and failed to account for all aspects of environmental risk that flow through the floodgates of mega-dams.

"Amazonia Is Ours"

The motto *A Amazonia é nossa* (Amazonia is ours) touted by the military regime that took power with the overthrow of the democratically elected government of President João Goulart in March 1964 inscribed the governmental imperative to secure territorial consolidation of the sparsely inhabited Amazonia. The nationalist strategy to occupy and colonize the north of Brazil wrought the Rodovia TransAmazonica (the TransAmazon highway BR-230), a 4,000-kilometer stretch of mostly unpaved highway.
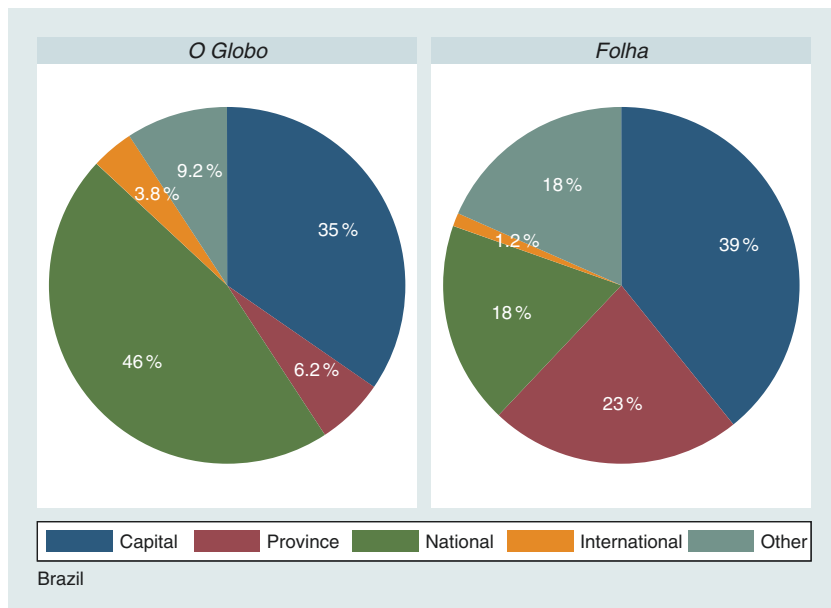
Fig. 4.1 Scope of the news articles by newspaper, Brazil

Conceived and inaugurated in 1974 by the military regime of President Emilio Medici, the longest road in the national highway system and state-sponsored incentives to farm newly demarcated lands were expected to lure 2 million new settlers who would secure the vast wilderness and drain its treasure trove of extracted natural resources. Prospectors of all stripes and nationalities—loggers, miners, cattle ranchers, aluminum smelters and assorted agribusinesses—enthusiastically embraced the growth mandate. Also at stake were the interests of engineering and construction conglomerates set to profit directly from government-sponsored mega public works projects, the *bancada ruralista* (the rural caucus in the Brazilian Congress) and the *barrageiros* (the pro-hydroelectric lobby) who stood to gain from the provision of various goods and services needed at the construction sites. The *bancada ruralista* legislators represent a ruling political class comprising large landholders and agribusiness leaders who consistently oppose congressional measures aimed at environmental

conservation (Souza Vicente 2013). Representative of economic and political interests of the rural elite, the caucus fought over the course of two decades to roll back protections enacted in the 1965 *Código Florestal* (Forest Code), pushing to limit penalties for environmental crimes and to reduce the percentage of lands protected from deforestation or development under the law.[2] The surviving legislation protects one-half of Amazonia (an expanse larger than that of protected indigenous lands), a measure that biologist Thomas Lovejoy commended:

> Brazil has incredible potential in sustainability leadership. It's quite a standing. Who would have ever dreamed that something like 50 percent of the Amazon would be under protection? That is extraordinary. Not all of those are well guarded and some of those are being eaten away at but that's pretty staggering. (personal conversation, May 19, 2015).

Following the ascent of the Worker's Party (Partido dos Trabalhadores, or PT) to power in 2003, President Luiz Inácio Lula da Silva appointed Marina Silva to head the environmental ministry. The daughter of Amazonian rubber tappers was instrumental in bringing federal government agencies together in support of the most comprehensive effort ever to fight deforestation in Amazonia. When she stepped down, her replacement Carlos Minc was welcomed as the herald of fast-track approval for the proposed hydroelectric dams in the north of Brazil, a top priority of the government's major initiative for economic growth.[3] Interviewed for this chapter, former minister Marina Silva criticized the pressure that political lobbies exerted in a concerted effort to gut environmental controls: "Every action we took against deforestation had supporters and also faced large resistance from interest groups in all sectors."

Those very interests prevailed upon Lula's successor, Dilma Rousseff, a former Minister of Mines and Energy and later Chief of Staff to President Lula; upon her election to the presidency in 2011, the former Marxist militant green-lighted the construction of Belo Monte. Flush with cash from soaring export revenues and an investment boom led by Chinese manufacturers and mining companies, the Brazilian government bankrolled most of the estimated $18 billion building cost for Belo Monte through its own funding agency, the Brazilian National Development Bank (BNDES). The public sector effectively retained control of the consortium that won the bid to build and operate the hydroelectric plant at Belo Monte: Norte Energia comprises ten companies, three of

which belong to Grupo Eletrobras, Brazil's electric energy public utility. Four decades after the initial foray into feasibility studies for a dam on the Xingu River, a growing population, untrammeled industrial growth in the southeast region, and a booming commodities export market rekindled the impetus for the construction of mega-dams that would address a soaring unmet demand for electrical power.

All along, civil society and non-governmental entities opposed to this and other dams buttressed their arguments based on provisions contained in Article 231 of the Brazilian Constitution of 1988 that disallow infringement of ancestral indigenous lands and specifically protects their rights to water resources, mineral prospecting and energy sources from use without prior consultation, rather than framing it as a challenge to corporate and mining interests (Barbosa 2015). Approval of the project required a compromise that instituted a set of prerequisites (referred to as "conditionalities," or *condicionantes* in Brazilian legal parlance) that have gone mostly unmet, despite various attempts by government agencies responsible for protection of the environment and indigenous life to halt or stop the construction and operation of the dam at various times. At each point, the governmental approval process that allowed the construction of the hydroelectric plant was awash with irregularities. The agricultural and mining interest groups that lobbied for and secured gutted environmental controls pushed to fast-track the hydroelectric plant's construction through bureaucratic, financial and legal barriers.

Norte Energia maintained that it complied with the legal requirement for consultation with the Brazilian Institute for the Environment and Renewable Natural Resources (Instituto Brasileiro do Meio Ambiente e Recursos Naturais Renováveis, or IBAMA) and other government agencies in Brasília. The consortium also delivered the required environmental impact assessment reports,[4] coordinated with the National Indian Foundation (Fundação Nacional do Índio, or FUNAI) to carry out anthropological research with more than 4,000 indigenous families and held public meetings at tribal villages. News outlets reported on public hearings held in Altamira, Brasil Novo and the state capital Belem, where indigenous protesters dressed in war paint and brandishing machetes, and a coalition of civil society representatives from the Landless Movement (Movimento dos Sem-Terra), environmentalists, the Xingu Forever Alive Movement (Movimento Xingu Livre) and other groups clashed with government officials, *barrageiros* and business owners, and local residents, who welcomed the dam as a source of new jobs and economic

development. Public prosecutors, federal and state attorneys decried the curbs on free speech at these town hall settings, where petitioners were told to keep their remarks short, and police kept crowds outside venues filled to capacity and barred attendees from waving protest flags. Civil society organizations criticized the post facto surveys and town hall style meetings that informed locals about upcoming relocations as a travesty of consultation that in reality presented a *fait accompli*.

"It's a Free for All"

As the news media reported on clashes at public meetings and the preliminary steps that heralded the construction of the hydroelectric plant, the press amplified Norte Energia's narrative, which characterized the resettlement of local riverine families as a positive improvement, bringing "development" to people who inhabited precarious stilt houses without proper sanitation. A news item published in *Folha de São Paulo* under the headline "Relocation of population delays the opening of the country's largest hydroelectric plant" starkly portrayed local communities as an obstacle to the mega-dam in a short (110 word) text that contrasted stilt houses, commonly perceived as lodgings for the dispossessed, with Belo Monte, depicted in terms of its potentially voluminous electrical output and equated to economic progress:

> The third-largest construction project under the PAC [*Programa de Aceleração do Crescimento*, Brazil's Growth Acceleration Program], with investment currently estimated at 28.9 billion *reais*, the Belo Monte hydroelectric dam depends on stilts. Better said, it depends on the demolition by March of thousands of such shacks in the flood zones of Altamira, in the state of Pará. Belo Monte is also the largest electrical sector enterprise in Brazil. It should add 11,233 megawatts (MW) to the 133,900 MW [currently] installed which is no longer sufficient capacity to generate electricity for the country, but only by 2019. (Leite and Almeida, 2015)

The following month, 47 indigenous tribal members traveled to Brasilia to petition President Dilma Rousseff for compensation over the environmental impacts that resulted from paving a stretch of highway BR-163, the 2,000-kilometer "Soybean Highway" that connects Brazil's booming grain belt round Cuiabá, in the state of Mato Grosso, to the nearest Cargill and Bunge shipping export terminals on the Tapajós River

in Santarém, Pará. Under the headline, "Indian [sic] groups leave bows and arrows at the entrance to the [office of President Rousseff], are greeted by secretary," *O Globo* reported:

> The Indians [sic] arrived at the main entrance to the Planalto Palace with bows and arrows, but were barred [from entry]. The aide to the General Secretary of the Presidency Tiago Garcia greeted them and asked them to leave their weapons in the bus that brought them there. They agreed to leave their weapons outside and were allowed in, through the back door. At first, they said they would not leave without speaking to authorities.
>
> "We did not come here to speak to an aide. We wish to speak to someone in charge, someone willing to listen. We want to speak to the Justice Minister, the Transportation Minister, the Environmental [sic] Minister, the Chief of Staff, and the President. That's what we want," tribal leader Doto-Takak-ire told Tiago Garcia. (*de Souza,* 2015)

The news report went on to relay the conversation in which the presidential aide, having asked the petitioners to drop their weapons, dismissed them with a suggestion that they schedule lower-level meetings for the coming week. It is telling that this rare *O Globo* news account of indigenous demands portrayed tribal leaders as primitive, contentious savages ignorant of government protocol and literally barred from access to power.

As civil society criticism of Belo Monte mounted, the government resurrected legal statutes known as "security measures" that allowed it to scuttle constitutional protections and abandon consultations with tribal leaders. The mechanism harks back to measures enacted in 1940 under the authoritarian *Estado Novo* and in 1964 by the military regime that permit the government to bypass public debate during the planning and construction stages of projects deemed of great national interest. Freed from restrictive guidelines that set standards for public consultation, Norte Energia forged ahead and issued notice of forced resettlement to the indigenous and riverine communities whose lives would be impacted by the construction of the dam, in a way that technically complied with legal requirements and financing conditions set by international financial lenders (Viveiros de Castro and de Andrade 1988, p. 7). Federal prosecutors in the state of Pará bristled at the scuttling of requirements for proper consultation and the adoption of a fast-track approach to removal and relocation of riverine communities, which they denounced as coercion of

illiterate citizens encouraged to sign blank contracts of property transfer without legal representation in Altamira and Volta Grande do Xingu (Ministerio Publico 2016c).

Proper and timely consultation with local communities was not the only procedure to be streamlined in the course of the rush to build Belo Monte: some of the 40 prerequisite "conditionalities" negotiated prior to approval for the project were likewise abandoned along the way. As a precondition for approval of its license to develop the site on the shores of the Xingu, Norte Energia had agreed to monitor water quality, ensure navigability, build schools, health clinics and a sewer system in the city of Altamira. Altamira-based federal prosecutor Thais Santi pointedly criticized the government's trust in the consortium, noting that many of the prerequisites set for the grant of the license to build and operate Belo Monte went unmet in what amounted to "false promises" (Ministerio Publico 2016a). A reporter we interviewed at *Folha de São Paulo* described the "conditionalities" as a useless attempt at enforcement and accountability. According to him, "For the [federal government], the state government of Pará, and the mayoralties in the region all that matters is the billionaire flow of investments, the creation of thousands of jobs (even if these are temporary jobs), and the sense of progress that galvanized the region." He compared the licensing process to a "free for all where environmental concerns take last place." Indeed, IBAMA temporarily delayed the start of operations at Belo Monte on October 2015 only to reverse course and authorize the flooding of the reservoir less than one month later.

At every step, consortium officials and other government representatives relied on an overarching narrative that presented indigenous peoples as an "environmental problem" who were construed as an obstacle to major development projects. This frame resonated throughout press accounts, where the controversy over proper due process, legal expediency or the multiple impacts arising from an increasingly transactional relationship between the government and indigenous population were noticeably absent. News reports reiterated the official argument that the energy crisis in the industrialized and cosmopolitan southeast amply justified the dogged pursuit of new energy production in the north, no matter what the cost. This narrative reached its apex as rolling blackouts inconvenienced millions in major urban centers whenever demand for electricity surged during the hot summer days of 2015. An emblematic news account blamed judicial, environmental and planning obstacles for the delay to necessary upgrades in the country's energy production capacity, and cited Norte Energia's

explanation that blamed "innumerable stoppages that occurred because of roadblocks, work site invasions, labor strikes and legal injunctions that impacted in different ways the construction sites," a claim Minister of Mines and Energy Eduardo Braga reinforced with a sarcastic response that shifted responsibility for outages onto protesters and strikers whose actions slowed down construction work at various hydroelectric dams:

> It's obvious that if Belo Monte were already in operation, if they hadn't set fire to the construction site in Jirau, if nothing had happened in Santo Antonio . . . if all construction was under way as planned, and if we lived without the unexpected, none of this would have happened. But if that were the case, journalism would not be as interesting and our activities would not be as necessary. Therefore, life is beautiful also because of these challenges. (*Fariello*, 2015)

All along, Belo Monte critics denounced the building costs as a trifle compared to the social and environmental long-term costs of a project that resettled entire riverine communities to areas high above the river where their way of life was severely disrupted and their culture torn asunder, removed indigenous peoples from reservations, attracted an influx of 25,000 temporary workers to Altamira, disrupted the ecosystem in the river and adjacent areas, deforested wide swaths of land and added pressure to illegal logging activities. All told, various sources calculate that more than 300,000 people in 11 urban areas in Altamira, a municipality that is home to a national park, a national forest, an ecological station, a biological preserve, as well as the Arara, Araweté Igarapé Ipixuna, Baú, Kararaó, Koatinemo, Kuruáya, Menkragnoti, Panará and Xipayá indigenous reservations and areas beyond would be indirectly impacted by the project, along with 350 riverine families and 21 *quilombola* (communities of descendants of escaped or freed slaves) across 61,596 square miles, an area larger than the entirety of neighboring Suriname, the smallest country in South America. Norte Energia issued a commissioned Report on Environmental Impact to dispute those figures, and countered that only the Juruna and Arara tribes at Volta Grande do Xingu would be impacted, and "indirectly" so at that, as 226 Juruna would experience increased road traffic on PA-415 and diminished water flow on the Paquiçamba and Arara da Volta Grande rivers. In stark contrast to the consortium's estimate that a total of 1,982 indigenous people would be indirectly impacted throughout lands apportioned to

Arara, Araweté, Assurini do Xingu, Kararaô, Kuruaia Juruna, Parakanã, Xikrin do Bacajá and Xipaia tribes, anthropologists calculated that seven tribes would lose their land and see a systemic impact from the flooding that could ultimately destroy their cultures and lead to their political and cultural subjugation (Viveiros de Castro and de Andrade 1988).

More often than not, press accounts informed by data published in commissioned reports reiterated an official narrative that framed the hydro-electric project from the perspective of the energy crisis and the population's growing demand for electricity. Although predominantly neutral in tone, news stories published in *Folha de São Paulo* and *O Globo* relied primarily on two categorical frames: whereas 58 percent of articles described events as routine procedures or "business as usual," 35 percent framed the news as confrontational melodrama. In an example of the latter, a rare news report about the science of continental climate change considered hydroelectric construction in comparison to the energy demands of 4 million people to explain the warning contained in a study issued by the Instituto de Pesquisa Ambiental da Amazônia (Amazonian Environmental Research Institute):

> In one of the scenarios examined, deforestation would produce a reduction of 38 percent of the energy generated by the dam in Pará, or, in absolute terms, the energy consumed by 4 million people, especially those in the north region. This devastation would decrease the amount of rainfall as much as 15 percent. (Grandelle, 2013)

Results obtained in our coincidence analysis of the news coverage found that most articles filed from one of the major urban areas in Brasilia, Rio de Janeiro or São Paulo framed news stories as routine "business as usual," and stories that were national or provincial in scope framed news about Belo Monte in melodramatic terms that focused on political infighting, partisan politics, lucrative political appointments or social conflicts (see Figs. 4.2 and 4.3). One such news item reported remarks Cabinet Minister Gilberto Carvalho made to the BBC, where he alluded to consultations with indi-genous peoples being "sabotaged" and admitted that part of the conflict was due to the dearth of government services in the region of Altamira prior to the start of the dam:

> We are in a very difficult situation. This intervention happens in an area where the state is very absent. One of the mistakes at Belo Monte was that the state did not arrive ahead of the construction and its consequences. But
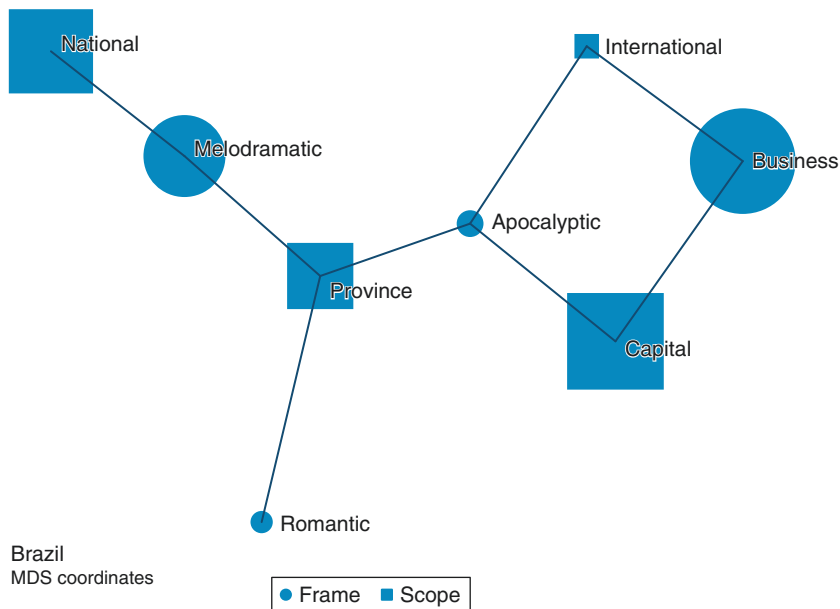
Fig. 4.2 Coincidence analysis: frame and scope, Brazil

we will not give up on [building the] Tapajós [dam]. Consultation is not deliberation. It must happen so as to respond to demands, decrease impact, but it does not impede [construction] (Fellet, 2014).

Multiple news stories such as the one focused on the economic impetus for electrical self-sufficiency ignored and rendered invisible the realities and needs of a wider swath of life in Amazonia. The theme of "development" was by far the most common; it emerged from 43 percent of the articles sampled for this chapter (see Fig. 4.4). Indicative of this pattern was a news story that cited federal energy planning company EPE (Empresa de Pesquisa Energética) President Maurício Tolmasquim's claim that no sizeable population would be at risk at the proposed site for a future mega-hydroelectric project on the Tapajós River. Universidade Federal do Oeste do Pará (Federal University of Western Pará) researcher Bruna Rocha challenged this characterization of the state, which is home to an estimated 39,081 self-identified indigenous people (IBGE 2012), and where archaeological
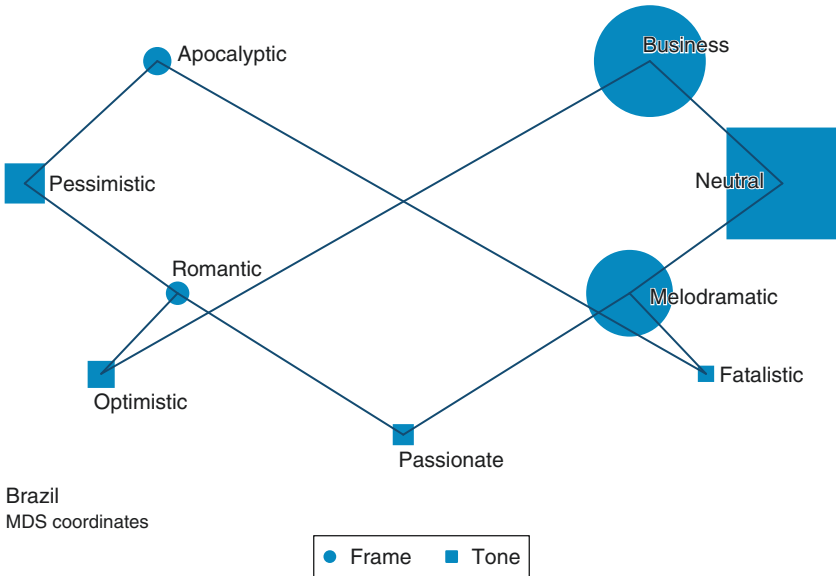
Fig. 4.3 Coincidence analysis: predominant frame and dominant tone, Brazil

records indicate certain areas have been populated since the ninth century, explaining that the portrayal of Amazonia as an empty canvas places at risk thousand-year-old sacred sites that house the cultural memory of the indigenous peoples. Yet, whether out of ignorance or racism, news reports that equated hydroelectric power with development and modernity commonly mirrored the discourse of government officials and its implication that indigenous peoples were inferior, primitive and backward. A news report filed from Brasilia described mounting tensions as indigenous protesters stormed onto Belo Monte to demand that the government comply with constitutional provisions that require prior consultation of tribal communities when ancestral lands are impacted by construction. The 469-word article quoted the government's derogatory description of protesters as it buried in the last paragraph news about how Norte Energia shut off gas lines in an attempt to starve the indigenous protesters into submission:

> The *Planalto* [seat of Brazil's executive government] denied the request and called the Indians [sic] "dishonest" and "violent." Yesterday, the [Office of
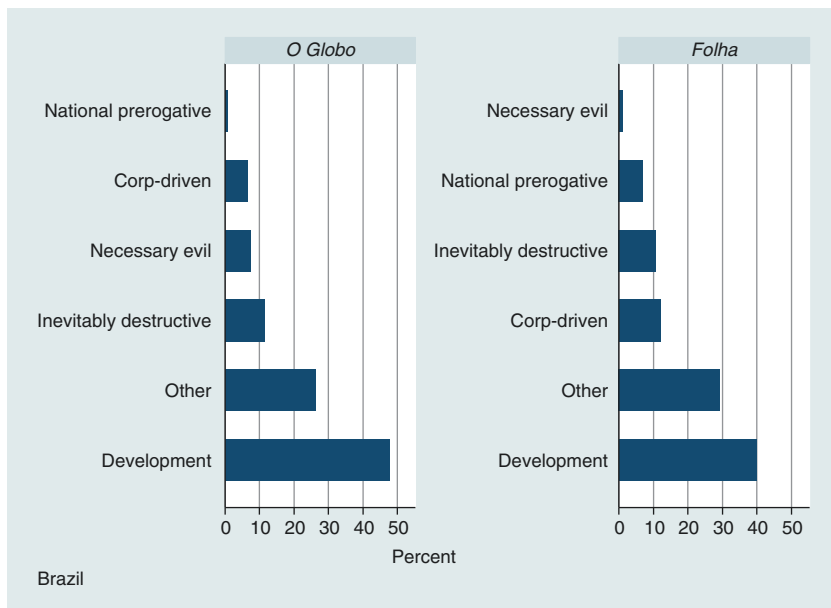
Fig. 4.4 Emerging themes by newspaper, Brazil

the President of Brazil] sent a representative to start a dialogue with the Indians. Norte Energia forbade the delivery of cooking gas, alleging it did so as a security measure.

Food for the Indians grew scarce. After negotiations with FUNAI, 35 indigenous members abandoned the protest but 140 Munduruku decided to continue the invasion. (*Brasil*, 2013)

A reporter who narrates an indigenous sit-in protest from a newsroom 1,900 kilometers away, as did the reporter in the above instance, can more easily misrepresent events insofar as he is incapable of, or unwilling to fact-check accounts presented by elite sources. Such work routines have consequences; journalists we interviewed for this chapter cited the geographic distance between Amazonia and the mainstream media newsrooms in the southeastern metropolitan centers of São Paulo and Rio de Janeiro as the reason for shallow coverage of Belo Monte. Several reporters alluded to the vast distance as a cultural chasm that splits the country in two. As a reporter in São Paulo explained, "Local issues that happen outside that axis are

considered unimportant—journalists from the southeast have no clue what's happening in the north—it's another country, another culture." Other reporters professed a poor understanding of the region and spoke openly about the gaps in knowledge that originate from a deficient educational system and working conditions that limit enterprise and in-depth investigative journalism. Another reporter, based in Brasilia, dismissively noted that there's no such thing as training, "You learn on the job." A common obstacle to consistent reporting of the topic seems to originate in competing agendas within newsrooms; reporters who pitched environmental stories told how they were repeatedly turned down and assigned to cover spot news instead of enterprise stories or investigative pieces about deforestation, climate change and other topics related to the environment. One of the editors we asked about the rationale behind such editorial priorities bristled in defense of the newspaper's record of environmental coverage, which he characterized as a top-down mandate, "after all, [co-owner, chairman, and CEO of Grupo Globo] Roberto Irineu Marinho himself is an environmentalist." Still, evidence to the contrary abounds: the environmental beat at Grupo Globo's daily newspaper and television newsrooms has been collapsed into the science and health or nature desk.

The shift in resources contributed to reducing the talent pool and dried up funds; several journalists spoke of shrinking story budgets that eliminated travel reserves, while many others told us that they were now more often pulled away from environmental stories and reassigned to report breaking news about politics or the economy. Evidence of how the impetus to cover breaking news overwhelms efforts to pursue long-term or investigative reporting emerged during an interview for this chapter that took place as the first cases of Zika virus made the front pages: the reporter asked the researcher, "Is the dam in operation yet? I don't have a clue. I'm not sure if the reservoir filled up yet. I'm now reading all I can about microcephaly." Surprised at her own lack of interest in a news story that had previously consumed several weeks of her time, she mused, "We journalists don't analyze as much after the fact, only during the fact. Now I don't even know if the reservoir flooded or not. It's the very nature of our work."

"A Cascade of Problems"

Amazonian expert Philip Fearnside, who estimated that 10 million hectares would be flooded if all dams now in the planning stages were built, warned that, "Dam projects throughout the tropics have followed a

pattern of systematic violation of human rights, including violence and murder, especially involving indigenous peoples" (2015, p. 2). On the shores of the Xingu, in the city of Altamira, established in 1911 and named for the view afforded by its elevation above the terrain where the river cascades at Volta Grande (the Big Bend), much has changed. In addition to the more than 25,000 newly arrived migrants relocated to work on the construction of the dam, Norte Energia also resettled, by their own account, more than 4,000 families from riverside houses to newly built public housing far from the shore. The at times contentious resettlement, whereby families received compensation for the loss of their homes, relocated people who made a living from fishing to hillsides away from the river. Many complained that the cash buyouts did not compensate for the loss of livelihood; entire families reported they were no longer able to earn a living from fishing or to feed off the river's bounty. Norte Energia claims to have used the equivalent of 13 percent of overall construction costs to support community improvements and social welfare projects. In addition, 400,000 *reais* in cash and in-kind enticements to indigenous and riverine peoples delivered everything from sugar to marine outboard motors in compensation for the vast land grab. As one of the few reporters from *Folha de São Paulo* who visited a remote tribal settlement noted, Norte Energia's commitment to reimburse each tribal village a monetary incentive of 30,000 Brazilian *reais* led indigenous chiefs to split existing villages into several new ones, so as to maximize the opportunity for hand-outs. The displacement of families split apart in this way contributed to increased fragmentation of tribal culture. Throughout the affected area, cash gifts encouraged indigenous populations to abandon manioc cultivation. Once the government indemnification process ran its course, indigenous peoples started to show signs of malnutrition and starvation. The forced relocations away from the riverfront and the destruction of traditional fisheries near the construction site likewise aggravated the rate of childhood and adult malnutrition among indigenous and riverine communities. One of the few São Paulo-based journalists who visited tribal villages in the country around Altamira claimed he was surprised to witness the extent of the impact wrought by the hydroelectric project, and how it reached far beyond the footprint of the construction site to the remote areas inhabited by indigenous populations on the far shores of the Xingu. Yet few reports examined these impacts or the consequences resulting from transactions that went to any lengths to secure the use of indigenous territories. Emblematic of the news accounts that discussed the impact of Belo

Monte on indigenous communities, a report about a panel debate hosted at *Folha de São Paulo* headquarters quoted Norte Energia director Antônio Kelson Elias Filho's complaints about the use tribal leaders made of in-kind goods delivered by the consortium:

> We saw the misuse of equipment like cars sold for 4,000 *reais*. Those were pick-up trucks valued at 80,000 *reais*. That money will go for *cachaça* [fermented sugar cane rum] and none of it makes it [sic] to the tribal village. (*Folha de São Paulo* 2013)

The location of Belo Monte in a region where the state has historically been absent posed substantial challenges to the feasibility of improving conditions at the same time as the mega-dam was being built. Multi-million investments in public facilities could barely shift lagging health, sanitation, education and public safety indicators (Instituto Socioambiental 2015). Sanitation in the city of Altamira provides a prime example of the challenges: one of the agreed "conditionalities" required Norte Energia build a sewer to ensure that the water in the dam reservoir would not be contaminated by the effluent from the 50,000 new residents who arrived in town as a direct or indirect result of the employment surge at Belo Monte. It turned out that the city of Altamira had never before operated a sewer even as its population grew to 100,000 residents prior to construction of the dam. Built from scratch, the new sewer ran at less than 10 percent capacity and the new housing and most of the existing homes had yet to be connected to sewer lines as the Belo Monte reservoir was flooded. Another "conditionality" was a new hospital built to accommodate the surge in health needs of a quickly expanding population of migrant laborers, which stood empty for lack of municipal budget to meet the payroll for skilled technicians and medical staff. Along with the surge in population, Altamira experienced a sharp rise in problems common to fast-growing urban areas; a rise in automotive traffic and a spike in violent crime and killings, which escalated 80 percent between 2011 and 2014, despite investments in law enforcement. All in all, the report found that the consortium's investments in Altamira fell short of improving the lives of local residents. The national press paid scant attention to the myriad failures that flowed from the systemic inability of the federal, state and local governments to provide basic conditions for adequate public services.

Beyond Altamira proper, the indirect impact of Belo Monte went mostly unreported: the growth of illegal logging, the destruction of local

fisheries, and the end of a riverine and indigenous way of life earned scant attention from the national press. Despite the attention paid by international news media to Amazonian deforestation, the Brazilian press rarely reported on the rate of deforestation wrought by the construction of Belo Monte. In Pará, where 1,592 logging mills were in operation in 2015, 24 percent of the 362 square kilometers razed that year were lost through logging, slash-and-burn forest management and clear-cutting meant to open land for cattle grazing and agriculture (Fonseca et al. 2015). Also vastly unreported were the impacts that flowed from disturbed river sediment, and the rise in methane emissions that emanate from flooded vegetation. Whereas methane naturally occurs as river gradients decline, much as mercury naturally occurs in an inert form on stable riverbeds, disturbed estuaries and waterways release toxic components when silt and soil are stirred as reservoirs fill up. The toxins ingested by fish enter the food chain: mercury poisoning in humans causes damage to the central nervous system and contributes to fetal malformation. Evidence of mercury poisoning presents a serious new health hazard in the region: researchers found a spike in concentration of mercury levels coincided with the inauguration of the Balbina hydroelectric (Ministerio Publico, 2016a).

The extensive and complex chain of events that unfolded as a result of the construction of the dam nonetheless seldom earned careful or consistent reporting in the press. Time and again, news reports reiterated the rationale commonly espoused by governments throughout South America, whereby support of infrastructure projects is characterized as beneficial and synonymous with development. In the case of Belo Monte, a network graph allowed us to identify that in most of the news articles where the national government was the principal actor two closely related themes emerged: the hydroelectric project stood as a proxy for development or as a matter of national prerogative (see Fig. 4.5). An example of one such instance emerged in a news report that quoted the testimony President Rousseff's Chief of Staff Gleisi Hoffmann, delivered to the Congressional Agricultural Committee: "Gleisi also attacked those who criticize the construction of the Belo Monte hydroelectric, 'There are groups who use the Indians [sic]...to block projects essential to development'" (*Folha de São Paulo* 2013).

This pattern prevailed throughout the coverage, where either the national government or the private (corporate) sector were the principal
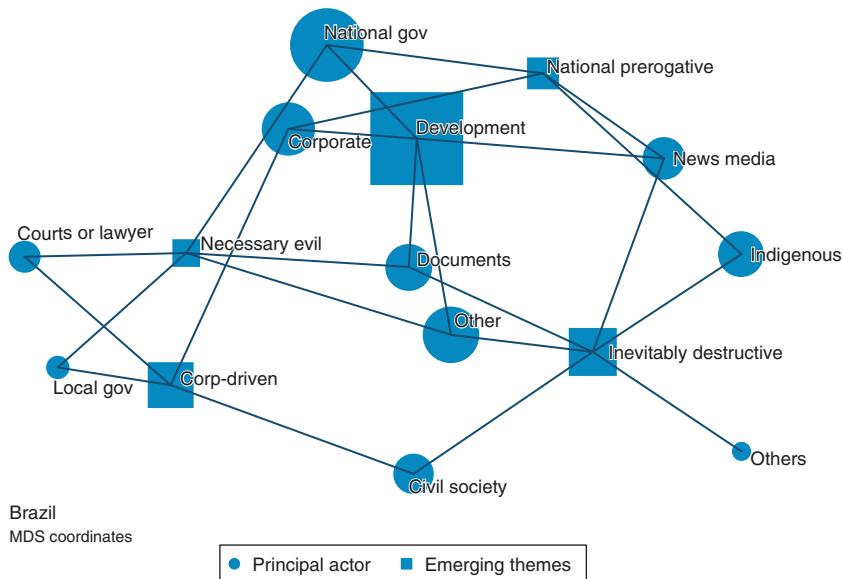
Fig. 4.5 Coincidence analysis: principal actor and emerging themes, Brazil

actors in 40 percent of the articles sampled and the national government was the principal actor in the majority of those accounts. This finding supports the claims made by a reporter at *O Globo* who told us that journalists were intensely "pressured" by corporations to the point that it generated tension in the newsroom:

> We are pressured to hear the mining company; they dial up the reporters. When journalists arrive in a small town someone will quickly run to alert the powers that be and in the town close to indigenous communities people will approach us and ask that we hear from the farmers and landowners. Those in power demand to be heard.

Given that scenario, it is not surprising to find that the indigenous groups are the ones who were seldom heard, and, in the case of *O Globo*, they were the least heard (see Table 4.1). Our content analysis found that indigenous people appeared as principal actor in only 10 percent of the news accounts and as secondary actor in only 5 percent of the articles sampled. The irony

Table 4.1   Principal and secondary actors appearances in news articles, Brazil

Actor	Principal actor			Secondary actor		
	All news articles %	*Globo %*	*Folha %*	*All news articles %*	*Globo %*	*Folha %*
National govt	26.6	29.3	25.1	13.9	15.5	13.0
Other	15.1	19.5	12.6	47.6	48.8	47.0
Corporate	13.6	13.0	14.0	17.8	15.5	19.1
Documents	10.4	13.8	8.4	2.4	3.3	1.9
Indigenous	**9.8**	**3.3**	13.5	**5.3**	**5.7**	**5.1**
News media	8.6	4.1	11.2	4.4	1.6	6.1
Civil society	7.7	5.7	8.8	5.0	5.7	4.7
Courts or lawyer	4.4	4.1	4.7	1.5	1.6	1.4
Local govt	2.4	4.1	1.4	1.5	1.6	1.4
Foreign govt	1.5	3.3	0.5	0.6	0.8	0.5

of this finding is that indigenous communities bore the brunt of the environmental costs yet were minimally consulted, in clear violation of constitutional provisions. For the most part, news accounts that mentioned indigenous peoples relayed derisive and racist remarks. One such report quoted Norte Energia director Antônio Kelson Elias Filho, who was booed by the audience at a *Folha de São Paulo* panel debate about Belo Monte when he said that, "The Indian [sic] wants to be a person, too, he wants to have opportunities, the right to study in a school, to be educated. He wants what he never had" (*Folha de São Paulo* 2013).

Equally lacking and sparse, though integral to a project that disturbs riverbeds and slashes through large tracts of rainforest, was news coverage that examined the use of non-renewable natural resources; our content analysis found that the principal actor in more than one-third (36 percent) of the articles did not mention resource extraction, even though its consequences were sometimes addressed, as were the remedies needed to counteract environmental consequences of such activities (see Table 4.2).

Still, there were some important variations between the statements published in *O Globo* and those that appeared in *Folha de São Paulo*. Although most news accounts failed to examine the controversy over resource extraction, those that did cited some of the consequences. This failure is more apparent in *O Globo*, where almost 50 percent of news articles omitted mention of extractivism, an issue that gained more balanced coverage in

Table 4.2   Principal actor's statements on resource extraction, Brazil

Principal actor's statements	Frequency	Percent	Cumulative total
None or other	122	36.09	36.09
Consequences	70	20.71	56.80
Remedy	66	19.53	76.33
Causes	41	12.13	88.46
Moral responsibility	39	11.54	100.00
Total	338	100.00	

Folha de São Paulo (see Fig. 4.6). As many as 38 percent of all news articles contained principal actor statements in support of Belo Monte; few statements opposed or presented a balanced view of the dam and one-third did not state an opinion either way. This pattern was evident in both newspapers' coverage, although support for the dam appeared most frequently in *O Globo* (see Fig. 4.7).
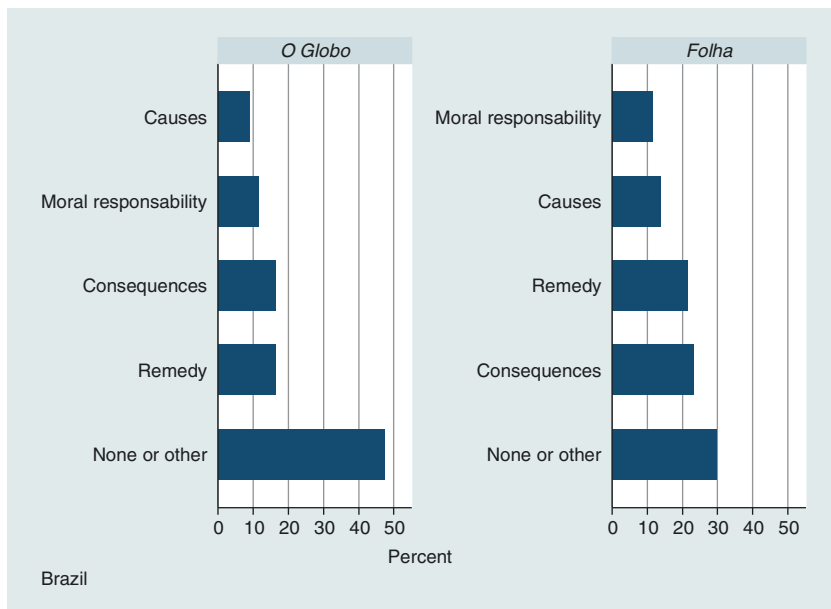
Fig. 4.6   Principal actor's statement on resource extraction by newspaper, Brazil
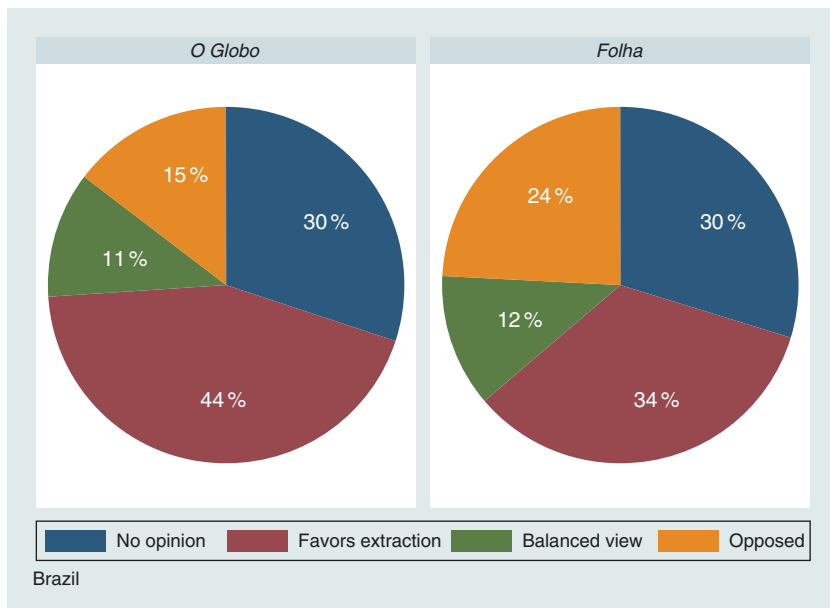
Fig. 4.7 Principal actor's opinion about resource extraction by newspaper, Brazil

Most news reports (68 percent of the articles) did not include a secondary actor but those that did had either a corporate representative or the national government as principal actor and then, in order of appearance, the secondary actor was either not clearly identifiable, or it was either the national government or indigenous people. In contrast, in the rare instances when an indigenous group appeared as principal actor, the secondary actor was either the corporate sector, the national government or a journalist (see Fig. 4.8).

All in all, our analysis confirmed that when principal actors belonged to an indigenous community, they were opposed to the construction of Belo Monte while, not surprisingly, voices from the corporate sector always favored resource extraction and government sources either supported or expressed no opinion about the dam (see Fig. 4.9). Principal actors who represented civil society were either opposed to Belo Monte or refrained from making their opinion on the matter known. From a political economy perspective, it is to be expected that different groups will represent different interests. Still, it is distressing to find that indigenous voices were systematically erased from news reports, even as Amazonian tribes were undergoing
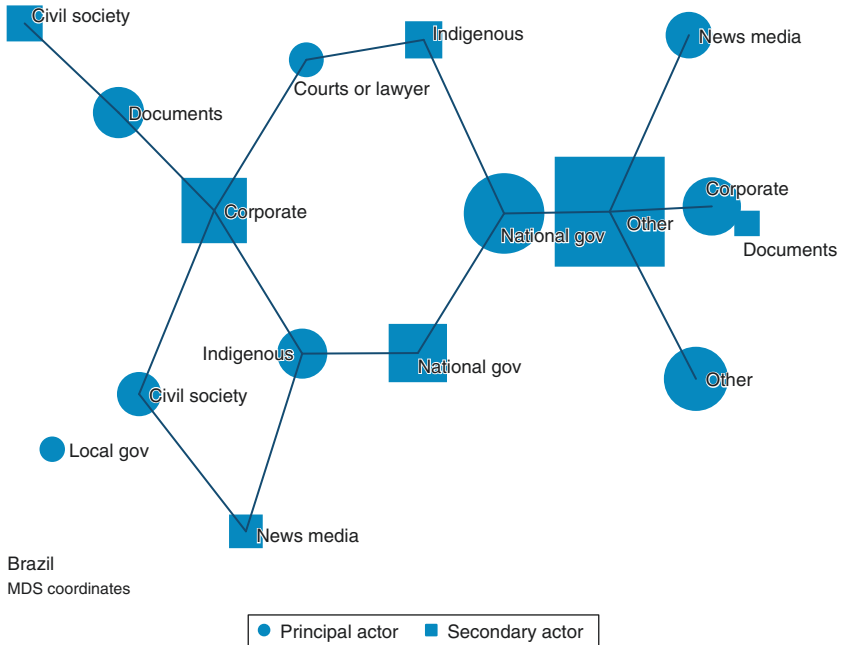
Fig. 4.8 Coincidence analysis: principal and secondary actors, Brazil

the direct environmental impacts of energy projects they did not support. To a great extent, the news media dismissed their claims at the same time as it amplified the government and business elites' clamor for energy at any cost.

ALL THAT GLITTERS

Although the electrical output from Belo Monte will purportedly service market demand, and industries are not slated to receive subsidized energy, one storyline consistently left untold in the Brazilian news media is about the correlation between the export of mineral commodities and the need for electrical power in one of the world's top sites for the production of mineral ore. In 2010, Brazil ranked as the world's second-largest source of iron and third-largest source of bauxite (DNPM 2011). The state of Pará is a treasure trove of aluminum, bauxite, copper, gold, iron, manganese and nickel. Seventy percent of its economy derives from mining, which yielded U.S.
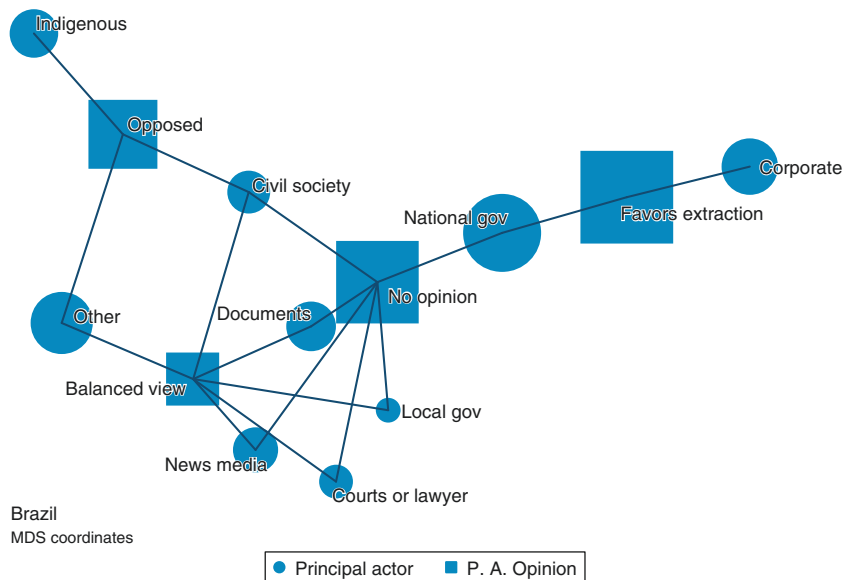
Fig. 4.9 Principal actor and their opinion about resource extraction, Brazil

$9.4 billion in exports in 2014, or 37 percent of all mining exports from the nation, including 75.7 percent of its copper exports and 29 percent of the country's iron ore exports (IBRAM 2016). National and foreign-owned aluminum smelters in Amazonia require electricity from Belo Monte if they are to expand production. Interestingly, not a single reporter interviewed for this chapter mentioned the role played by foreign mining conglomerates and industrial operations in driving the need for energy production in Amazonia. Instead, decades after the end of military rule, mainstream media journalists still espouse the propaganda spread by the military regime that framed a colonialist imperative for westward expansion through a xenophobic discourse that exaggerated the potential threat of territorial claims by foreign powers. This vision of a coveted Amazonia prey to foreign encroachment provides the backdrop for the backlash against celebrity spokespersons involved in campaigns against deforestation. It provided the backdrop as several journalists expressed disdain for Hollywood director James Cameron and rock musician Sting who, in 2010, stirred controversy in the Brazilian news media when they flew to the Amazon to stage press appearances in protest against the Belo Monte dam.

Although unreported, the nexus between foreign mining interests and the increased demand for electrical energy was not lost on indigenous tribal leader Sheyla Juruna, who noted that, "Belo Monte is a pretext for mining and oil exploration in the Volta Grande" (cited in Hoffmann 2011). Even as numerous extractive operations are under way in the region, new ones continue to gain approval. At nearby Volta Grande, 10 kilometer from the Pimental dam and the Paquiçamba indigenous reservation, Toronto-based conglomerate Belo Sun Mining obtained a license to run what is expected to be the world's largest open-pit gold mine, scheduled to yield 205,000 ounces of gold yearly over the course of 17 years, or 42 tons more than all the gold mined further south at Serra Pelada. Local communities appealed to prosecutors to prevent Belo Sun from mining gold on the shores of the Xingu River. Brazilian courts temporarily halted the project in 2014, citing concern over the impact on the Juruna and Arara tribes, already affected by the construction at Belo Monte (Ministerio Publico, 2016b). The outcome of this dispute is uncertain at the time of writing, as are plans for the construction of a large complex of hydroelectric dams in the Tapajós River basin. Greenpeace (2015) Amazon campaign manager Danicley de Aguiar denounced the process of environmental licensing in Brazil as a "loaded deck of cards," where government agencies rubber stamp political decisions regardless of environmental cost.

"Power Is a Game of Push and Pull"

Environmental news reporting took off in Brazil spurred by the international spotlight on the 1992 United Nations Conference on Environment and Development known as the Rio Earth Summit. Looking back on the progression of environmental coverage in the Brazilian media, former minister turned Green Party (Partido Verde) presidential candidate Marina Silva commended journalists for bringing awareness of the topic to the public and credited the role of the press as mediator between the environmentalists and the academic discourses:

> In 1988, when Chico Mendes died, there was minimal understanding of environmental issues. Twenty-five years later, a large segment of the population has been sensitized to environmental issues. Whether or not they carry this awareness through to their daily habits is another matter. The media played a role in making this happen. (personal conversation, May 9, 2015)

Still, an analysis of the news stories about Belo Monte shows that coverage ebbed and flowed, subsumed by a culture that privileges breaking news about politics and the economy above all else. On the one hand, news coverage reflected the political realities and priorities prevalent in Brazilian society. "The state is represented in all sectors of society, corporations and the media. Power is a game of push and pull," explained former minister Silva, in acknowledgment that editorial agendas prioritize economic policy. Also at play is the evolving business model of mainstream news operations, where financial pressure has entailed staff layoffs and the reallocation of resources. In this setting, newsroom routines, resource scarcity, lagging education, entrenched racism and editorial allegiances conspire to thwart the ability of journalists to tell complex stories such as the one examined in this chapter.

Journalists who reported on Belo Monte from a news desk 1,800 or more miles away blamed the high cost of travel and multiple deadline pressures as major obstacles to continued reporting about the controversy. Given that most of the reporting originates from outside the region in the newsrooms in Brasilia, Rio de Janeiro and São Paulo, editors and reporters must struggle to account for a way of life and culture that is mostly unknown to them. A reporter from *O Globo* suggested that the failure to include important issues in news accounts that simplified the controversy over the dam showed that reporters were ill prepared to ask the right questions. Many reporters and editors admitted that most Brazilian journalists lack training in science and are unaware of the complexity of the ecosystem that the dams compromise. A Rio de Janeiro journalist we interviewed cited the rector of the Federal University of Amazonas who complained that outsiders believe the region is all jungle: "Once you assume there's only greenery, you miss out on the complexity of Amazonia; there are people, animals, and much more at stake." Absent resources for professional development, journalists emerging from a precarious university education system are commonly ignorant about the intricately varied cultures in Amazonia. Professional prejudice and classism may also play a role in story assignments: a female editor in *O Globo*'s Rio de Janeiro headquarters openly acknowledged that she would trust staff reporters in her own newsroom, but would not trust a local reporter in the capital of the state of Pará.

Similar notes of racism and classism permeated the accounts of reporters who spoke of the moneyed classes and industrial interests as a foil to environmentalists, indigenous populations and local riverine communities, even as they acknowledged that the livelihood, health, culture and general

way of life of local populations are threatened by the massive disruption of the biome. In this manner, a theme that clearly emerged, not only from newsroom accounts and content analysis but also from the overarching discourse about Amazonia, is the preponderant perception of rural and indigenous populations as backward naïfs, ignorant of the unyielding logic of urban and economic growth. Absent sources from among riverine and indigenous populations, news reports subsumed the interests and concerns of local residents into a mainstream discourse that extolled the imperative of economic growth and justified hydroelectric construction as inevitable. The concerns and rights of local residents as represented in the news reports got short shrift amid the impetus for hydroelectric construction, and news stories foregrounded the increasing frequency of rolling power outages in the southeast of Brazil as proof that the country faced an energy crisis. An *O Globo* reporter based in São Paulo jokingly derided critics of the dam, "Those who opposed Belo Monte now live by candlelight." This sarcastic tone was echoed in other interviews, where journalists from various outlets noted that the public in the southeast of the country ultimately only cared that there be electricity to charge their cell phones.

The three main private news agencies in Brazil, Agencia Estado, Folhapress and Agencia O Globo, re-package and distribute on a national scale the same news content produced by their respective print dailies; this results in dissemination nationwide of news constructed through production processes that limit scope, framing and sourcing (Oliveira 2014). In this manner, the construction of news at the national level is effectively commandeered by principles, practices and discourses set by the urban newsrooms of Rio de Janeiro and São Paulo. This helps explain how the perspective of a cosmopolitan press corps permeates the news cycle and sets the agenda for discussion related to environmental risk and more from an urban perspective that privileges the discourse of government officials and corporate elites who justify the logic of unbridled resource extraction to fuel energy demand and economic growth, no matter what the environmental risk. Indeed, although the surge in the production of electricity can clearly be linked to the interests and incentives that flow from the international commodities chain, news coverage about Belo Monte (and other hydroelectric projects in the region) seldom alluded to the pivotal role played by mining interests in exacerbating electrical demand. Remarkably, the industrial and mining interests that were the source of the spike in energy demand in the north of Brazil remained notoriously absent from the decades-long controversy and ensuing political debate about the impact of hydroelectric

construction on the environment and on local populations. A journalism professor at the Federal University of Rio de Janeiro succinctly explained:

> The Brazilian press is guided by the political interests it serves, the corporations they serve, the largest being Globo, and the clientelism of the press toward the political parties. The message is that the right thinks that the destruction of the Amazon is a matter of poor management, not a political catastrophe. It's shocking that a town next to the dam remains without power. No one cares. A news editor doesn't care.

The news stories analyzed for this chapter indicate that Brazilian mainstream news media overwhelmingly skirted the vast contradictions inherent in the construction of Belo Monte. Whereas the hydroelectric project was proposed as a renewable energy project that would support the country's commitment to reduce emissions by 38 percent by 2020, reservoirs in forested areas often produce substantial greenhouse gas when vast amounts of drowned vegetation decompose (International Rivers 2010). Also missing from the fray was a thorough understanding of the complex nature of climate change and the impact of deforestation in the Amazon on rainfall patterns and volume elsewhere in the country. This comes about through a sophisticated intermingled hemispheric cycle first described in 1970 by Eneas Salati of the University of São Paulo as "flying rivers," that is, water vapor from the Amazon that skirts the Andes to cause precipitation in the south of Brazil. Climate researchers have warned that increased deforestation on the scale required by the hydroelectric projects forecast in Amazonia may eventually produce extensive climate change effects that include reduced rainfall in the eastern and southern regions, increased frequency of droughts and forest fires, and the eventual transformation of the tropical vegetation in the Amazon from forest to savannah (Oyama and Nobre 2003; Stickler et al. 2013). In sum, climate research predicts that the voluminous water flows that originally justified the building of the dams in the Amazon basin are contingent on a delicate climate balance fed by a conversion that depends on evaporation from the vast forest vegetation. Submerging the latter could very well dry up the former.

Once flooding of the first Belo Monte reservoir started in December 2015, more than one ton of fish floated dead amid complaints from three indigenous tribes that their canoes and household belongings were washed away. As 100 tribal members staged a protest blockade that stopped 37 buses transporting

construction workers on the road to the hydroelectric, news media reports indicated that Norte Energia would not comment. Also unreported, the comment from a spokesperson at Instituto Socioambiental who called Belo Monte a "Trojan horse" that would spearhead dozens of new such projects in Amazonia. Much like the hidden threat concealed inside the gift horse, this one note of alarm slid undetected past the mainstream news media.

NOTES

1. The five families control the leading mainstream media conglomerates in Brazil are: Grupo Abril (Giancarlo Civita), Grupo Bandeirantes (Johnny Saad), Grupo Folha (Luiz Frias), Grupo Globo (Roberto Irineu Marinho) and Grupo Record (Bishop Edir Macedo).
2. The Reservas Legais e Áreas de Proteção Permanente (Legal Reservations and Areas of Permanent Protection), legally instituted under the environmental code of law, restricts the amount of property rural landowners may use for extractivism, agricultural, or cattle-raising purposes.
3. The Growth Acceleration Program (Programa de Aceleração do Crescimento, or PAC) was established in January 2007 under the Lula administration as a four-year program of economic policies and investments aimed at promoting economic growth at the national level. The federal government budgeted 500 billion *reais* in financial incentives and fiscal measures meant to strengthen the nation's infrastructure, including hydroelectric and other energy incentives, housing, transportation and sanitation. In March 2010, the program was renewed with an additional budget of 1.5 trillion *reais*.
4. A multiplicity of reports, each followed by its own set of acronyms, have accounted for various environmental and human impacts to the region immediately adjacent to the reservoir and dams. The list, too extensive to include here, includes the *Estudo de Impacto Ambiental* (Environmental Impact Assessment and Report, or EIA), the *Relatório de Impacto Ambiental* (Report on Environmental Impact, or Rima) and the *Avaliação Ambiental Integrada* (Integrated Environmental Evaluation, or AAI), among others.

REFERENCES

Barbosa, L. C. (2015). *Guardians of the Brazilian Amazon rainforest: Environmental organizations and development.* New York: Routledge.

Brasil, K. (2013, May 9). Justiça manda índios deixarem obras da usina de Belo Monte [Justice demands Indians (sic) leave Belo Monte power plant construction site]. *Folha de São Paulo.*

De Souza, A. (2015, February 2). Após deixar arcos e flechas na entrada do Planalto, grupo de índios é recebido por secretário [After leaving bows and arrows at the entrance to the Planalto, indigenous group is received by the secretary]. *O Globo.*

DNPM Departamento Nacional de Produção Mineral [National Department of Mineral Production]. (2011). A importância econômica da mineração no Brasil. Retrieved from http://investimentos.mdic.gov.br/

Fariello, D. (2015, January 21). Atraso em obras do setor elétrico chega a quatro anos [Delay in construction of electrical sector amounts to four years]. *O Globo.*

Fearnside, P. M. (2006). Dams in the Amazon: Belo Monte and Brazil's hydro-electric development of the Xingu River basin. *Environmental Management*, 1–13. Retrieved from www.internationalrivers.org.

Fearnside, P. M. (2015). Amazon dams and waterways: Brazil's Tapajós basin plans. *Ambio*, *44*(5), 426–439.

Fellet, J. (2014, November 10). Dilma deixou a desejar no diálogo com a sociedade, diz ministro [Dilma's dialogue with civil society left much to be desired, minister said]. *Folha de São Paulo.*

Folha de São Paulo. (2013, December 19). Debate sobre Belo Monte esquenta com questionamento de ambientalistas sobre índios [Debate about Belo Monte Heats Up Questioning Environmentalists about Indians (sic)]. *Folha de São Paulo.*

Fonseca, A., Justino, M., Souza Jr., C., & Veríssimo, A. (2015). Deforestation report for the Brazilian Amazon (November 2015) SAD (p. 10). Belém: Imazon. Retrieved from http://imazon.org.br/

Grandelle, R. (2013, May 14). Usinas de energia dependem de florestas [Power plants depend on forests]. *O Globo.*

Greenpeace. (2015, November 24). Ibama concede licença e Belo Monte pode começar a operar. Retrieved from http://www.greenpeace.org/

Heckenberger, M. J., Kuikuro, A., Kuikuro, U. T., Russell, J. C., Schmidt, M., Fausto, C., & Franchetto, B. (2003, September 19). Amazonia 1492: Pristine forest or cultural Parkland? *Science*, *301*(5640): 1710–1714.

Hoffmann, K. (2011, August 15). Belo Monte dam marks a troubling new era in Brazil's attitude to its rainforest. *Ecologist*. Retrieved from http://www.theecologist.org/

IBGE Instituto Brasileiro de Geografia e Estatística [Brazilian Institute of Geography and Statistics]. (2012). Os indígenas no Censo Demográfico 2010 [The indigenous in the 2012 Demographic Census]. Retrieved from http://www.ibge.gov.br/indigenas/indigena_censo2010.pdf

IBRAM Instituto Brasileiro de Mineração [Brazilian Institute of Mining]. (2016). Produção mineral brasileira 2015. Retrieved from http://www.ibram.org.br/

Instituto Socioambiental (2015, June 29). *ISA publica dossiê "Belo Monte – Não há condições para a Licença de Operação." [ISA publishes report, "Belo Monte – Unmet*

conditions for Operating Permits.”] Retrieved from https://www.socioambiental. org/sites/blog.socioambiental.org/files/dossie-belo-monte-site.pdf

International Rivers. (2010, March). *Belo Monte massive dam project strikes at the heart of the Amazon.* Retrieved from www.internationalrivers.org

Leite, M. & Almeida, L. (2015, February 1). Remanejamento de população atrasa entrega da maior hidrelétrica do país [Population relocation delays delivery of the largest hydroelectric in the country]. *Folha de São Paulo.*

Ministerio Publico. (2016a, March 4). Senador José Porfírio: MPPA debate com a comunidade e instituições o projeto Volta Grande do Xingu. Retrieved from http://www.mppa.mp.br/

Ministerio Publico. (2016b, January 2). Santarém: Mais de 500 pessoas debatem projeto de hidrelétricas no Tapajós. Retrieved from http://www.mppa.mp.br/

Ministerio Publico. (2016c, February 1). Santarém: Mais de 500 pessoas debatem projeto de hidrelétricas no Tapajós [Santarém: More than 500 people debate hydroelectric project on the Tapajós]. Retrieved from http://www.mppa.mp.br/

Oliveira, H. M. G. (2014). A atuação das agências de notícias nacionais – Estado, Folhapress e O Globo – como distribuidoras de conteúdos no interior dos conglomerados de mídia brasileiros [The role of national news agencies as distributors of content within the Brazilian conglomerates of media]. *Revista FAMECOS, 21*(2): 518–540.

Oyama, M. D., & Nobre, C. A. (2003). A new climate-vegetation equilibrium state for Tropical South America. *Geophysical Research Letters, 30*(23): 2199.

Simons, M. (1989, March 12) The world: The Amazon forest; Brazil wants its dams, but at what cost? *The New York Times.* Retrieved from http://www. nytimes.com/1989/03/12/weekinreview/the-world-the-amazon-forest-bra zil-wants-its-dams-but-at-what-cost.html

Souza Vicente, I. (2013). *O mito do Brasil real, discurso patronal e ideologia: A atuação da bancada ruralista na votação do novo código florestal.* (Dissertation). Universidade de Brasília.

Spears, T. (1988, December 4). Why Brazil insists it has to cut down its forests for dams. *The Toronto Star.*

Steward, J. H. (Ed.). (1948). *Handbook of South American Indians* (Vol. 3). Bulletin 143. Smithsonian Institution Bureau of American Ethnology. DC: GPO.

Stickler, C. M., Coe, M. T., Costa, M. H., Nepstad, D. C., McGrath, D. G., Dias, L. C. P., Rodrigues, H., Soares-Filho, B. F. (2013). Dependence of hydro-power energy generation on forests in the Amazon Basin at local and regional scales. *PNAS, 110*(23), published ahead of print May 13, 2013, 9601–9606.

Viveiros de Castro, E. & de Andrade, L. M. M. (1988). Hidrelétricas do Xingu: O Estado contra as sociedades indígenas. In L. A. Ayer & L. M. M. de Andrade (Eds.), *As hidrelétricas do Xingu e os povos indígenas.* São Paulo: Comissão Pró-Indio de São Paulo.

Chile's Pascua Lama: Where Water Is Worth More than Gold

High atop the Cordillera de los Andes on the Inca Trail, glacial patches of snow and ice straddle the border with Argentina, protected by the high mountain peaks east of the Atacama Desert. The remote mountains and pristine air of this sparsely inhabited region have preserved intact ice reserves and vast amounts of clear pure water bound in a perennial cycle where snowfalls and bracing winter temperatures naturally replenish the spring melt. In the villages of the Huasco Valley below, home to the sacred ancestral lands and burial grounds of the indigenous Diaguitas, the watershed irrigates farms and supplies households. In this green strip of an oasis in the Andes, where the balanced water storage and release ecosystem creates a stark contrast to the arid Atacama, graffiti scrawled on walls to protest a twenty-first-century gold rush read in Spanish, "Water is worth more than gold."

In the mid 1990s, the Canadian mining conglomerate Barrick Gold acquired land in Chañarcillo, an area known for silver mining in Alto del Carmen, in the Chilean province of Copiapó. The sale, completed through a local company, Empresa Minera Nevada, announced the start of an ambitious mining project forecast to produce 850,000 ounces of gold annually from deposits estimated to hold 18 million ounces of gold and 676 million ounces of silver. The cross-border mining site stretches from Chañarcillo on the Chilean side of the border to Veladero in the San Juan province of Argentina. Three-quarters of the

deposits rest on Chilean soil and 80 percent of the processing would occur on the Argentinean side of the border (Nolen 2014).

The remote location in the sparsely inhabited Atacama Desert, south of the Los Huascoaltinos reserve, combined with the high altitude of the mountains at 4,000 meters (13,000 feet) above sea level make travel to Pascua Lama challenging. Hidden from view and perched high atop the Andean highlands, the craggy area is difficult to identify on standard maps and hard to access (Taillant 2013).

At the initial stages of the mining project, company officials touted Pascua Lama as one of the world's largest deposits of gold ores and predicted that it would operate at extremely low cost. But opposition to contamination from mining activities and the resulting reduced availability of precious water in this arid land grew, and local activists networked into international circles. In particular, the indigenous group Diaguita Huascoaltinos Agricultural Community met with success in fighting the mine's planned construction under international law; in 2013 a Chilean court of appeal halted construction.

By then escalating operation costs, worker unrest, labor cost overruns, multiple delays and plummeting gold prices had already brought about a corporate overhaul and, in Toronto, led to the ouster of the CEO of Barrick Gold. The Chilean Supreme Court ordered Barrick to build a water management system that would add to already high and increasing construction costs; in September 2013 the company announced a temporary suspension of the project (Li 2016.) The mining project remained at a halt as this volume went to press. Confronted by the press about the merits of a $6 billion class action lawsuit in the U.S. District Court in New York,[1] based on shareholder claims that the mining conglomerate recklessly misrepresented the extent of the production problems and challenges at the Pascua Lama mines, Barrick chairman Peter Munk allowed that "everything" went wrong at Pascua Lama (cited in Hasselback 2014, FP1).

Environmental groups in Chile agreed that the project was troubled, albeit for different reasons. The polluting nature of the chemical processes required to extract precious metals from ore at mining sites involve contamination hazards to watersheds, rivers and other water sources. In recent years, the expansion of mega-mining projects in remote regions of South America has politicized and internationalized conflicts over water, and given rise to regional coalitions of local farmers and indigenous communities who protest the socio-environmental threat posed by the use of water for mining projects such as the one at Pascua Lama. Researchers decried the

environmental risk to glaciers from the dust and debris generated by the explosions required to prepare the pit and extract the ore. Experts warned that soiled glacier surfaces reflect less light and that a modified melting point might accelerate the disappearance of up to 20 hectares of ice reserves. Local protesters expressed concern over damage to the glaciers, reduction of river flow, and feared a land grab and the impact on indigenous Diaguita culture (Urkidi 2010). In Argentina, the Center for Human Rights and Environment (CEDHA) issued a scathing report that accused Barrick Gold and its representatives of underestimating the extent of the damage to hundreds of glaciers impacted by the mining operation (Taillant 2013). A detailed study conducted by glaciologists determined that the open pit mines polluted the ice field, which consequently impacted highland wetlands and waterways. Local residents expressed concern that at Pascua Lama, where melt from the glaciers flows down to the Huasco Valley, contamination of the watershed would deliver mercury, sulfuric acid and cyanide into the river waters that supply 70,000 farmers and irrigate groves of avocados, guava, olives, pears and grapevines.

Intent on extracting what comprises one-quarter of the conglomerate's reserves of gold worldwide, Barrick hired experts to produce environmental impact reports and evidence to contradict the critics. Glaciologist Andrés Rivero at the Centro de Estudios Científicos (Center for Scientific Studies), under contract with Barrick, argued that ice field in the glaciers supply a minimal share of the region's water, a stark counter to complaints local villagers filed in court. The researcher likewise dismissed concerns that the project might aggravate the drought in the Salado and Copiapó rivers and impact the glacier melt atop Pascua Lama; according to him, those conditions were attributable to El Niño and global warming, and were thus unlikely to be impacted by the use of scarce water resources in mining production processes. Confronted with skepticism from environmental watchdog agencies, the conglomerate unveiled plans to cut and haul three glaciers away to safer ground as a way to preserve the ice from the potential threat of contamination. While Barrick alleged that such relocation would not have significant impact for residents, others noted that the plans stipulated moving an area of 25 acres—about 800,000 cubic meters—of ice (Ross 2005). Furthermore, the scarcity of water in this arid region meant considerable technological engineering was required on the part of Barrick.

In July 2012, more than a decade after the release of its first environmental impact study, Minera Nevada deployed tons of equipment and

brought in 1,900 new workers to dig a mile-wide canyon 2,000-feet deep and start the extraction process, expecting to unearth more than 15 million ounces of gold reserves and tap into an estimated $7.5 billion worth of silver deposits. The ensuing battle over the extraction of the wealth from beneath the Andes mobilized civil society, polarized local residents, and stretched from the courts of Copiapó to the Chilean Supreme Court and beyond, to the United Nations Human Rights Commission. This chapter examines how the Chilean news media narrated the dispute generated by the controversial gold mining project and the politicized debate over water and mineral rights.

The Gold Rush

In Chile, decades of neoliberal policies that followed the free trade economic system established during military rule with the passage of the 1980 Constitution ushered in legal and tax reforms in the mineral-rich nation meant to attract foreign investment to fund mega-mining projects. Pro-business fiscal measures and regulations enacted in 1990 exempted mining companies from payment of most taxes and royalties, further bolstering the rationale set into motion under the new constitutional framework. Meant to accelerate foreign investment and drive up revenues from the export of valuable mineral commodities to worldwide markets, the fiscal environment favored mining over agricultural industries and set the stage for confrontations about a prized shared resource: water. Water is an essential ingredient for most phases of mining operations, from extraction to processing; challenges to sustainability abound in settings where mines compromise water quality or set in motion substantial social or environmental impacts (Bichueti et al. 2014). On the one hand, the decision to extract non-renewable resources can, in and of itself, stir controversy in nations that have relied for centuries on the commodification of natural wealth. Equally unsettling are the potential impacts of ore extraction on the working conditions of laborers, and the health and well-being of laborers and residents of mining communities. A vast literature indicates that economic inequity and social ills abound in mining areas, and that social conflict and poverty disproportionately prevail (Pegg 2006). The record holds ample evidence of the severe physical impacts of mining on the landscape: soil erosion and contamination, along with often irreversible impacts on environmental habitats, and the pollution

from processing plants, all contribute to politicize the debate over water use and conservation in places where the resource can be scarce.

An equally important legacy from military rule that became paramount in the dispute over Pascua Lama and similar mega-mining projects were the changes to the legal code that inscribed water use as a private individual right to be purchased, leased or granted in perpetuity by the state. The neoliberal approach that regulated water as a property right in 1981 buttressed private ownership and promoted free market policies; what ensued was a climate favorable to bargaining, where disputes between those who hold water rights end up in court (Bauer 1998). The Dirección General de Aguas (Chilean water authority) regulates and grants water rights where available, free of charge, and the individual rights can then be bartered by the owner. Since the adoption of the Water Code, thousands of legal disputes have gone all the way to the Supreme Court, an indication of the vast escalation of conflict over the determination of guiding priorities for water use, especially where the requirements of mining industries clash with those of public use or impact the livelihood of indigenous communities (Rivera et al. 2016). In the Atacama Desert and the north of Chile, where water is scarcest, conflicts over water primarily pitch mining interests against those of agricultural and local communities.

Yet another indication of the government's determination to promote and advance mining interests is the bilateral treaty signed in 1997 (ratified in 2000) between Argentina and Chile that paved the way for transnational exploration of mineral deposits and made it possible for Barrick Gold to invest in the cross-border site at Pascua Lama. The result of lobbying efforts sponsored by international mining conglomerates Rio Tinto, Falconbridge, Tenke, and Barrick Gold, the treaty expanded the ability of transnational mining companies to operate on 95 percent of the border region of the Andes (Resource 2007). The drive to embrace foreign investment in mining derives from the industry's central role in the country's economy: mining exports contribute the lion's share to Chilean national coffers. At its most robust in 2011, mining represented $37.3 billion of the country's gross national product, a figure that decreased to $21.6 billion in 2015 as a result of the downturn in commodities prices and a worldwide economic slowdown (Consejo Minero 2016). Chile ranks as the world's leading source of copper: the nation exported 5,760 metric tons in 2015, or one-third of the world's entire copper production. Although known for its silver reserves, Chile is more importantly the

world's second-largest producer of molybdenum, a steel alloy used in the nuclear power industry, missile and aircraft parts, and in oil refineries.

Given the financial stakes involved in a mining sector that comprises the mainstay of the national economy, whichever political party occupies the presidential palace at La Moneda exudes largesse when it comes to governmental policies that favor, reward and protect mineral extraction. In recent years, as successive governments adopted policies meant to boost the economy, reduce poverty and consolidate its recovered democracy, the country deepened its dependency on extractive practices even as it sought to promote nascent industry. The mainstream media fell into lockstep, faithfully reproducing a discourse that heralded national goals of progress and economic development fueled by natural resource exploitation.

In the Shadow of Pinochet

A culture built upon authoritarianism and centralized government is not the only remaining vestige of the dictatorship Augusto Pinochet led from 1973 through 1990. The end of the Pinochet regime and transition to democratic rule occurred under a center-left coalition government led by Patricio Aylwin, who made it a priority to prevent the risk of a return to dictatorship by accepting that the hardline general remain at the head of the army even as a National Truth and Reconciliation Commission investigated the abuses wrought by the military. In a climate of overwhelming caution, the transition government of Aylwin compromised the freedom of the press in an attempt to prevent the persecution of members of the previous regime who remained in office. Even as it curtailed censorship and returned trials of members of the press from military to civilian courts, the Aylwin government negotiated passage of a legal framework that to this day limits press freedoms in the Andean nation.

The tight controls imposed on the press follow the mandates inherent to a highly concentrated, vertically integrated system of media ownership closely tied to powerful economic interests. Two conglomerates, El Mercurio S.A.P. and the holding company Consorcio Periodistico de Chile Sociedad Anónima (Chilean Journalism Consortium), or COPESA, leveraged their support for Pinochet's dictatorship into tight control over most of the print news media in the country (Noam 2016; Zeitlin and Ratcliff 2014). The privately held El Mercurio conglomerate, operated by the Edwards family since the 1830s, is publisher of the nation's leading daily (*El Mercurio*) and several regional newspapers, and controls a major

Chilean bank. Together with competitor *La Tercera*, a publication previously owned by the Picó-Cañas family, and since 2005 under the control of businessman Alvaro Saieh, chairman of the board of private bank Corpbanca S.A., these conglomerates dominate the printed and digital press. The close corporate ties between news media owners and allied business and finance interests are clearly evident through the news coverage. In one example, researchers who studied Chilean news media coverage of protests in favor of educational reform found evidence that the reporting consistently promulgated an editorial agenda that aimed to "delegitimize [social] movement demands" (Cornejo et al. 2011, p. 170). The consolidation of media interests has not only contributed to a chilling effect, it has also led to an overall harmonization of the editorial agenda to the point that different news media become almost indistinguishable from one another (Pellegrini 2010). According to a former presidential spokesman, "Chilean reporters follow the agenda set by editors who act more as managers than as journalists. Reporters who fail to follow orders are fired."

The pro-exploitation discourse that promotes the agenda of government and business interests committed to the expansion of economic growth at any cost flowed through the news coverage that emerged about Pascua Lama. A Santiago-based reporter from *El Mercurio* interviewed for this chapter confirmed that the publisher enforces an editorial line that mimics the rhetoric put forth to promote the government's energy policy, characterized as, "We, Chileans, realize [the country] must produce energy. We must harness the *cordillera* and the rivers, and we must solve our energy crisis." An investigative reporter at *El Mercurio* similarly cited the conglomerate's close ties to the power elite and suggested that its close allegiance to the government is the reason why it seldom covers environmental topics. Describing a work setting where editors privilege political news coverage to the detriment of potentially controversial environmental topics, one of the reporters we interviewed suggested, "not only is the environment disregarded in-house, the business community sees the environment as a *burden* to be dealt with at an added *cost*."

In search of evidence, we performed a content analysis on 226 news articles about Pascua Lama published over the course of 76 consecutive months in the digital editions of *El Mercurio* and *La Tercera*. While the results showed important differences in the format, origination and scope of the news reports, the coverage in both newspapers predominantly portrayed news of the mining project in terms that implied the operations ran in keeping with business norms, following the preponderant editorial

line that framed news stories from the perspective of pro-business inter-
ests. Characteristic of news coverage that privileged a business-oriented
frame and minimized the environmental controversy, an article that
reported Barrick Gold's decision to fire one-third of the workers employed
at work camps located on the Argentinean side of the border offhandedly
downplayed the risks to the glaciers at the core of the legal dispute that
brought the mining operation to a halt and focused instead on commodity
prices and rate of return on investment:

> The Pascua Lama project consists of an open pit mine that will primarily extract
> gold and silver in a region located 4,500 meters above sea level at the border
> between Chile and Argentina. However the project was suspended at the end
> of October in Chile due to legal conflicts and in compliance with requirements
> issued by Chilean courts, given the drop in the market price for metals, which
> led the company to reconsider its investment. (*EMOL* 2013).

Our analysis found that over time the news coverage was evenly split
between reporting that construed events either from a routine "business as
usual" frame or presented a melodramatic emphasis on the social or
political conflict surrounding the mines. Emblematic of this approach,
an early article that appeared under the headline "Environmental and fiscal
variables in the Pascua Lama mining project" equated the need to
promptly resolve environmental questions to setting a fair tax rate for
the revenues that flow from a cross-border operation. Sidestepping the
relevance of the environmental controversy, the article presumed that
speedy resolution of both matters was pre-ordained in its conclusion
that, "The importance of the Pascua Lama project and what it represents
in terms of economic activity demand a quick resolution of the pending
issues" (*La Tercera*, 2009). The majority of news accounts likewise betray
a pro-business bias in narratives that legitimize economic imperatives and
preclude serious consideration of environmental concerns.

Also prevalent in the coverage were news stories that shared a concerted
vision in which nature and the environment were represented as passive,
silent forces to be harnessed and exploited for the benefit of development
and modernity. An example of this frequent narrative can be gleaned in a
news story published after the original environmental approval for the
mining project was issued in March 2011: the report summarily dismissed
concerns about "possible changes to the glaciers" as "adequately miti-
gated" in an account that described Atacama's third region as a "serious

problem" area, mired in decades of stagnant growth. The article hailed as "spectacular" the "economic euphoria" that followed the initial stages of the project to conclude, "It's stimulating that an area that until very recently posed a serious problem for central authorities has been transformed into a promising development pole that will benefit local residents and the country as a whole" (*El Mercurio*, 2011).

Time and again, news reports failed to delve into the rationale of groups opposed to the mining projects out of concern for the potential impact on the glaciers and the Andean watershed. Our analysis of a sample of news stories published between November 2008 and March 2015 evidences a pattern of systemic exclusion of accounts that empower local voices as well as those that oppose or criticize the mining project. One of the journalists we interviewed from *El Mercurio* agreed that criticism of the gold mining operation seldom echoed in press accounts:

> The company [Barrick Gold] said nothing would happen to the glaciers. The news coverage focused much more on the company, the benefits it would bring, the profits, and the modern technology that would arrive in [Chile]. There was no coverage of indigenous people or agricultural farmers downstream who were concerned about watershed contamination.

An analysis of datelines shows that a predominantly cosmopolitan point of view emerged as the overwhelming majority of stories originated from the metropolitan centers or presented the Andean mining operation from an international or national scope. Indeed, most of the reporting published in *El Mercurio* and *La Tercera* originated in Santiago or presented a national focus on the news; a pattern glaringly evident in the reporting of *El Mercurio*, and only slightly less so in *La Tercera*, where we found that 13 percent of news articles were filed from a provincial dateline (see Fig. 5.1).

Indeed, the news in both newspapers clearly either emphasized the business aspects of the mining operation or the melodrama that resulted from the conflict (see Fig. 5.2). Further examination identified a pattern to the relationship between the scope and frame of the articles: news articles reported from the capital or those that were international in scope framed stories from a business perspective that narrated events as routine "business as usual" occurrences while, for the most part, those articles that were national in scope deployed a melodramatic frame.

Figure 5.3 provides preliminary evidence that shows how a particular narrative was constructed and illuminates the inconsistencies between the
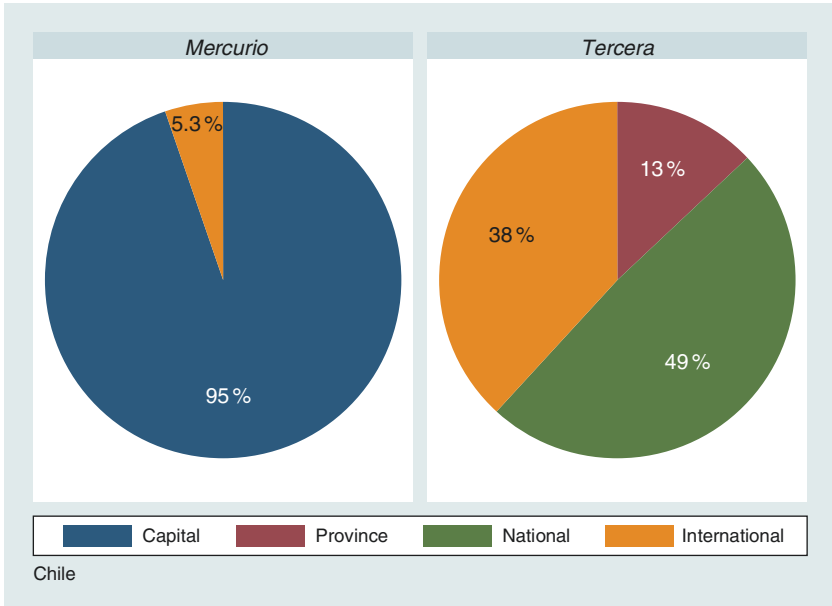
Fig. 5.1 Scope of the news articles by newspaper, Chile

location of the conflict and the scope of the news. The picture that emerges depicts a conflict that impacts a marginalized and remote region yet is presented in urban centers as a "normal" or "common" challenge to the growth of business. The issue has important consequences for the nation from a democratic point of view, however when presented from a national scope, the low mimetic discourse creates a bias. The prevalence of narratives that privilege the urban logic of modernity and economic development emerges in the visual map of a coincidence analysis that shows an overwhelming association between business-oriented frames and the news stories that originated in the capital (see Fig. 5.3).

The melodramatic frame particularly evident in early reporting re-emerged repeatedly in 2014, when the local indigenous Diaguitas agri-cultural community attacked the impact of the mines on the water used for farming irrigation of ancestral lands in an official declaration as protesters gathered outside the annual shareholder meeting at Barrick Gold's Toronto headquarters in April. An order from the Chilean
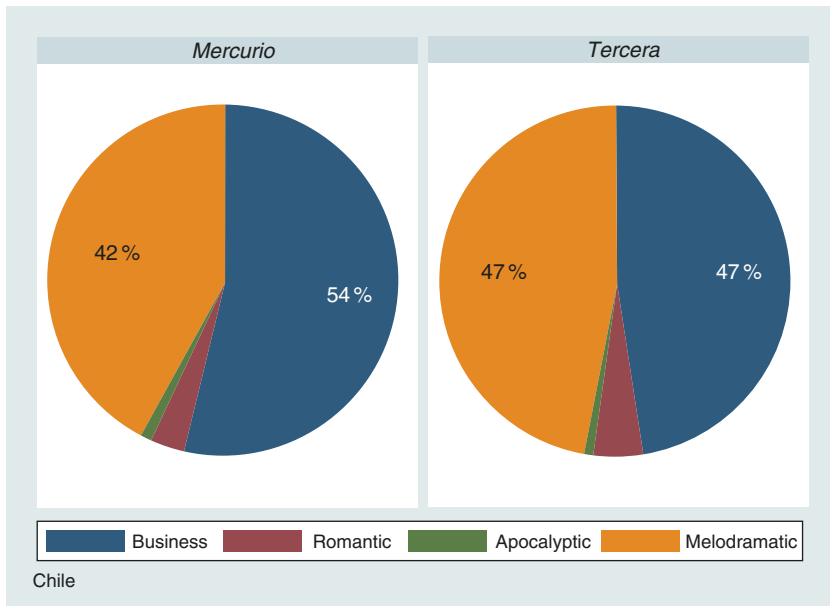
Fig. 5.2 Predominant frame of the news articles by newspaper, Chile

Supreme Court brought the Andean mining operation to a halt. As the conflict escalated, an article in *El Mercurio* shifted the focus away from the mining operation's impact on the watershed as it reported tribal complaints in a lede that read, "The 15 indigenous Diaguitas communities and associations of the Valle del Huasco who signed the memorandum of understanding with Barrick for the Pascua Lama gold mining project charged that they were victim of 'harassment' by environmentalists, as a result [of the agreement]."

We believe that the frames that emerged in the coverage resulted from established newsroom routines and journalistic norms that conspire to engender an over-reliance on sources from the capital and ready access to official sources that promote an understanding of the world from a perspective that favors growth, development and elite economic well-being. The evidence that emerges from the data conforms to known models that show how established newsroom routines drive reporters under time pressures to resort to reliable collaborators who are readily

Province

Melodramatic   Romantic   Business

International

Capital

National

Chile
MDS coordinates

● Frame   ■ Scope
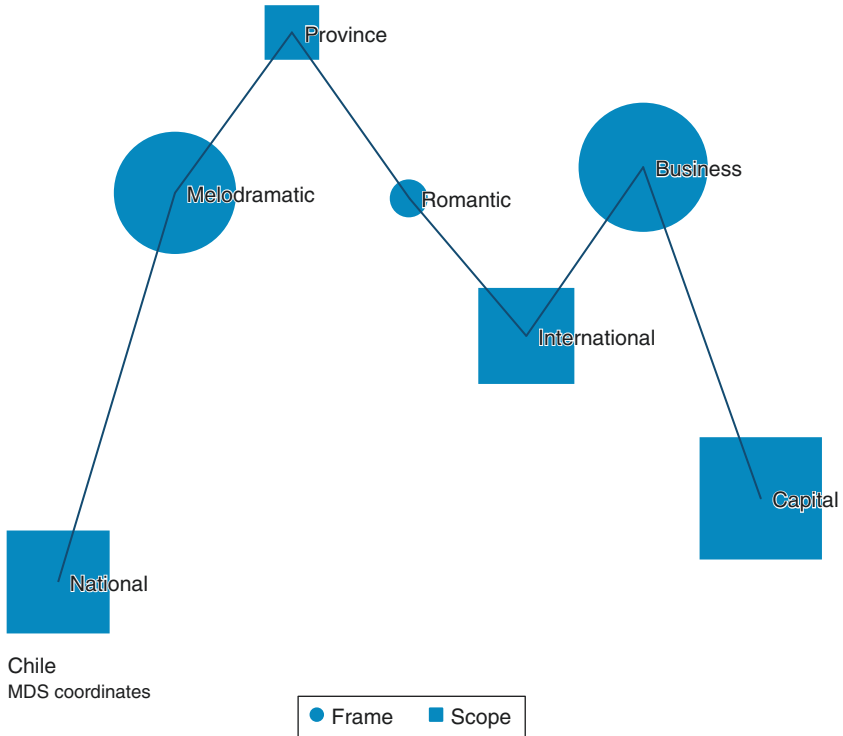
Fig. 5.3   Coincidence analysis: frame and scope, Chile

accessible on speed dial, and who can become a select group of "go-to" government and corporate sources trusted to provide a quick response to meet a deadline. This tendency has been repeatedly confirmed in studies that followed Gitlin's (1980) examination of the ways in which reporters serve political and economic elites and maintain elite hegemony. Add this predisposition and over-reliance on elite sources to the inherent difficulty of identifying "credible" witness and stakeholder sources in the provinces, and a lopsided representation of reality emerges. In fact, the majority of the articles examined for this chapter overwhelmingly relied on principal actors from the corporate sector (42 percent of articles in *La Tercera* and 33 percent in *El Mercurio*), even more so than sources from the national government, the courts, or lawyers (see Fig. 5.4). This over-reliance on
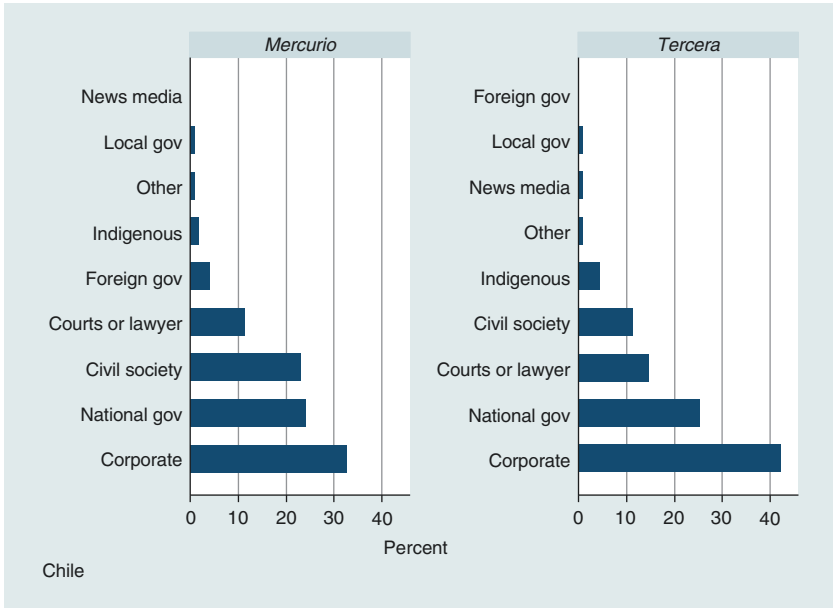
Fig. 5.4   Principal actor of the news articles by newspaper, Chile

elite corporate actors and government officials to lead the news accounts is well established in the literature and models that explain how news coverage follows interests held by the elites, rather than those that emanate from public opinion, in the manner described by Bennett (1990).

Predictably, in societies where structural racism and inequality prevail, news reporting patterns such as these can contribute to re-inscribe cultural bias and racist attitudes in news accounts. A reporter based in the northern region of the country painted the picture of a reporting dynamic that reinforces systemic social exclusion: "The view from the capital is that the impact happens far away or in places that are ignored because they are poor. Such is the historical burden imposed by an overwhelmingly centralized power." The acceptance of the exclusionary scale frame, and the tacit facilitation of its continuation with the under-representation of civil society voices is striking. While it is worthy of note that *El Mercurio* cited civil society representatives in almost one-quarter of its reporting and far more frequently than it cited legal or judicial sources, the results of our
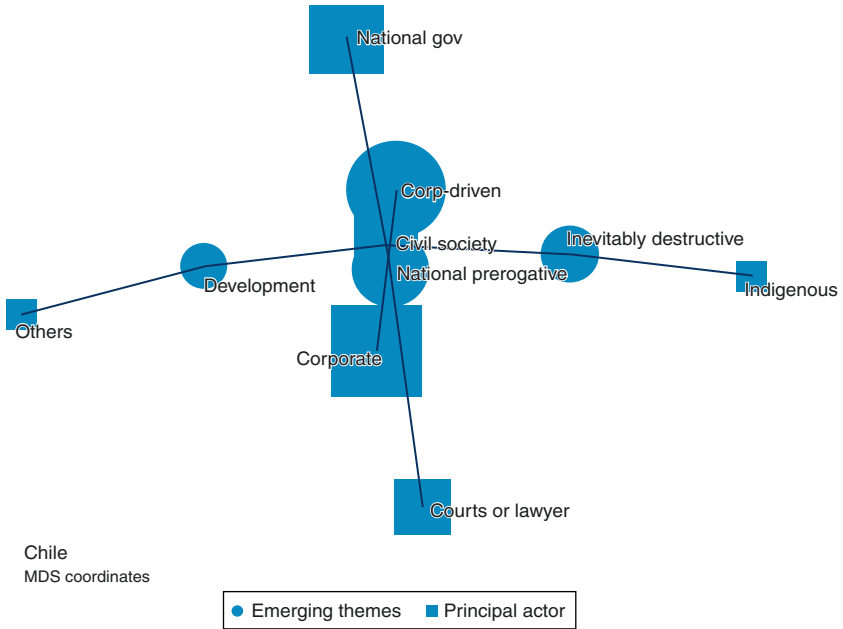
Fig. 5.5 Coincidence analysis: principal actor and emerging themes, Chile

content analysis show that arguments and views expressed by individuals that aligned with those of corporations or the Chilean national government prevailed. The fact that the latter appeared in news accounts in far greater proportion than representatives from indigenous communities reflects a systematic pattern, rather than random coincidence.

Indeed, in article after article that lent support to mining interests and framed resource extraction as an acceptable corporate practice, justified and driven by the impetus for national development, our analysis likewise identified a significant and strong relationship between the principal actor and the themes that emerge from these news reports. Figure 5.5 displays the results of a coincidence analysis that visually maps the network structure between the principal actor of the news and the emerging themes. A close alignment is evident from this diagram, which indicates that the most common themes that emerge in news where the corporate sector is the principal actor refer to corporate-driven or national prerogative rationales. The same is true for news articles where the principal actor is the national government.

In so doing, the coverage effectively accentuated the story line pro-
posed by business interests and aligned to the government's discourse
about the national imperative for economic growth and development.
Development discourse is often a privileged narrative, wrapped in layers
of nationalism and modernity, and seemingly impenetrable to counter-
arguments of conservation and justice the mainstream media some-
times deploy. From a political economy perspective, it makes sense to
see each of the actors competing to advance their own interest.
However, it is dispiriting to substantiate how indigenous communities
who had little to no political power to oppose resource extraction projects
were barely heard. Furthermore, when they did get reported, it was
basically in resigned statements that admitted that the destruction
wrought by the mining project was something inevitable. One of the
rare news stories that presented indigenous voices in the role of principal
actor reported the formal request to the environmental agency
(Superintendencia del Medio Ambiente) presented by a coalition of local
civil society groups that included indigenous Diaguita communities in
which the petitioners asked the agency to abstain from legal recourses
which would further delay the sanctions that halted Barrick's operation of
the mines:

> The [letter] added, should the case go to the Supreme Court, it will further
> prolong the amount of time it will take to intervene in the glacial ecosystem
> of the world's most arid desert, and will contribute not only to deepen the
> irreparable harm that has already taken place but it will also delay the
> necessary re-establishment of justice in the territory. (*EMOL*, 2014)

A quantitative analysis of the views expressed by the principal actors
about resource extraction in the news accounts we examined may suggest
that while the causes that drive the country to extract non-renewable
resources are recognized within news stories, principal actor statements
regarding resource extraction are far less likely to address the conse-
quences that derive from this strategy than to explain why it must be
done (see Fig. 5.6). Needs related to consumption and development,
and the perceived moral responsibility to meet these, were clear winners
of news space over any explanation of consequences of neo-extractivism.
Primary actors cited in *El Mercurio* who addressed the reasons for resource
extraction seldom mentioned the question of moral responsibility, unlike
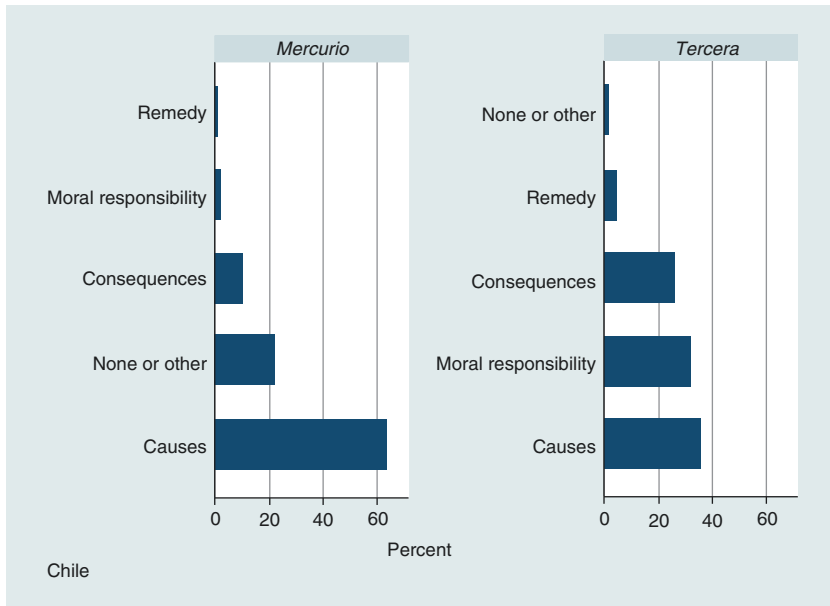
Fig. 5.6 Principal actor's statement on resource extraction by newspaper, Chile

those in *La Tercera*, where the theme of moral responsibility did appear, second only to discussion of the reasons.

Equally compelling was the finding that the possibility of remedies for contamination related to extractive activities was almost absent from either news source; although almost half of the stories (108 articles) addressed the reasons for resource extraction and almost as many cited consequences and moral responsibility, a mere seven articles addressed possible remedies. One such example resides in a noticeably short (274 words) 2013 report in *La Tercera* that Barrick acknowledged it had failed to meet water protection guidelines set by environmental authorities and estimated it would cost $29 million to build and operate water treatment facilities meant to prevent water tainted with acid from the mines contaminating the irrigation system of farms in the region. This news report, which focuses primarily on the corporate expenses required to mitigate damages and concludes with a sentence that emphasizes the overall value of the mining investment, fails to
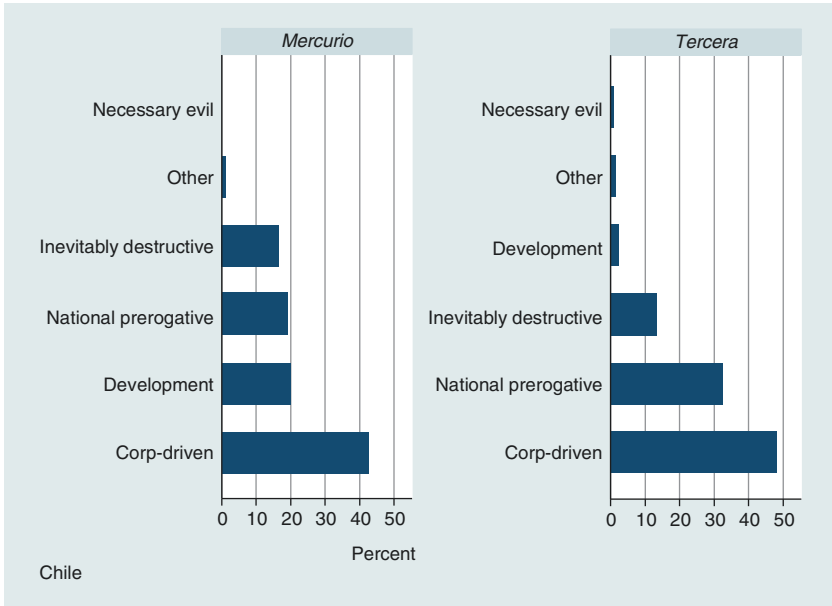
Fig. 5.7 Emerging themes by newspaper, Chile

describe in equal terms or similar length the costs to the environment or to the communities. Our content analysis found that this pro-business frame is characteristic of most of *La Tercera* and *El Mercurio*'s news coverage of Pascua Lama.

Such placement of principal actors' perspectives aligned with overall themes presented within news content (see Fig. 5.7). Even though *La Tercera* consistently published more balanced views and the views of those opposed to mining at Pascua Lama, all in all, statements from most principal and secondary actors reaffirmed a common vision. Both *El Mercurio* and *La Tercera* relied on corporate and national government sources more consistently than any other type of source as primary and secondary actors in their account of the news. Corporate interests (43.16 percent), socio-economic development (20 percent), and national interests (18.95 percent) dominated the themes prevalent in *El Mercurio*'s reporting. Corporate interests (48.85 percent) and national interests (32.82 percent) also prevailed in the themes that emerged from news
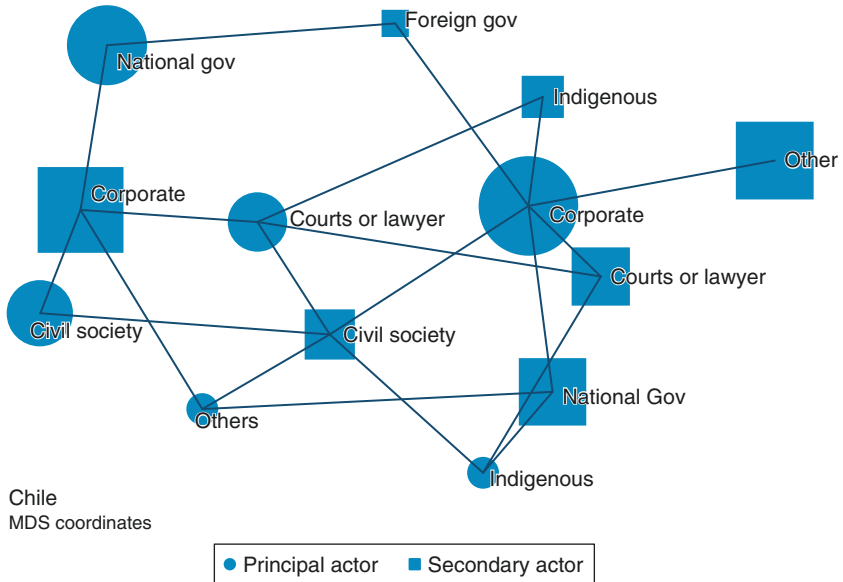
Fig. 5.8   Coincidence analysis: principal and secondary actors, Chile

reports published by *La Tercera*. Interestingly, both newspapers had roughly equivalent percentages of the theme of extractive activities being inevitably destructive, with the conservative *Mercurio* having a slightly higher number of published articles utilizing this theme.

Further analysis found patterns of association in the coverage mapped in the form of a coincidence analysis that examined the relations among principal and secondary actors in the news (see Fig. 5.8). An economy beholden to mining enterprises that require large-scale investments is inextricably dependent on government funding or, in the case of neoliberal Chile, multinational corporate investors. This dynamic emanated from news accounts, where what can be described as an over-reliance on corporate narratives permeated and flowed through the body of most reports: for the most part, news articles presented the corporate sector as the secondary actor as well. This finding is represented in Fig. 5.8, where the size of the geometric figures is related to the frequency of occurrence of each event. Clearly, the corporate sector was the most frequent actor in the news, whether in a principal or secondary role.
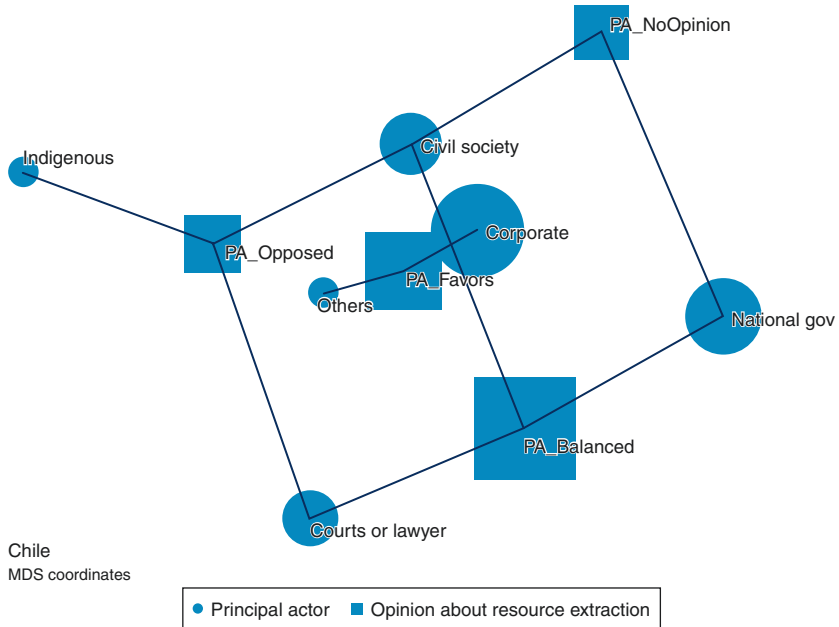
Fig. 5.9 Coincidence analysis: principal actor and their opinion about resource extraction, Chile

Notably, when the principal actor was a corporation, the most likely secondary actor was either the national government or a court. But it was less likely for an indigenous community member or a member of civil society to counter the principal actor's opinion. Also, whenever the national government appeared as the principal actor of the news story, it was more likely that the second actor would be a corporate one.

Probably the most striking finding was that, although representatives of the national government in the role of principal actor sometimes expressed a balanced opinion about the mining operation or completely refrained from stating an opinion, the only clear opposition to extraction emerged from indigenous communities, the very actors whose voices were most excluded from news reports. The map in Fig. 5.9 clearly illustrates how indigenous voices opposed to mining lay outside the norm for news reports about Pascua Lama as, all the while, news coverage converged on corporate accounts that favored the project.

Although clearly oppositional narratives were few, our analysis found that 46 percent of the statements attributed to principal actors put forth a balanced opinion of resource extraction. This may be indicative of an awareness common among residents of a country where economic prosperity has largely derived from the mining of copper and other metal dating back centuries to colonial rule. A Chilean reporter interviewed for this chapter summarized this ethos, "Our back-up is copper. Copper always solves our problems. Our dependency on raw materials is akin to historical laziness." Still, it is important to acknowledge that more than 50 percent of the articles about the environmental and legal dispute adopted a neutral tone, most often in accounts that addressed the conflicts as routine "business as usual."

The primacy of these particular actors in news reports about Pascua Lama created a consistent and pervasive narrative molded by stakeholders responsible for and invested in resource extraction that was mostly devoid of input from civil society, indigenous peoples and residents of local communities adversely impacted by the mining project. Notably, *La Tercera* published more than twice as many articles opposed to the mining project than those in favor of it. In contrast, *El Mercurio* published far more articles that did not express an opinion either way; the majority of its articles presented balanced views and few appeared to take sides. As delays pushed back the original schedule, 40 percent of news reports increasingly employed optimistic or passionate tones to describe the embattled project (see Fig. 5.10). Clearly optimistic news reports in *La Tercera* early in 2009 became much more sparingly so thereafter; a passionate tone tinted the coverage as reports accrued details about the escalating legal conflict and mounting fines that culminated in the court-ordered suspension of Barrick permit to mine Pascua Lama.

THIR$T

A major challenge in reporting stories that involve environmental risk in remote areas is that a view from afar often distorts the focus on what is actually happening on the ground. These "sacrifice zones," to adopt the term used by Naomi Klein (2015), fit with a colonialist mindset that justifies predatory extractive industries that contaminate and pollute sparsely inhabited regions of the world. "Out of sight, out of mind," the saying goes, and so also goes reporting on environmental contamination or risk that occurs in provincial areas far removed from the capital and major metropolitan centers. It relates to the exclusionary scale frame
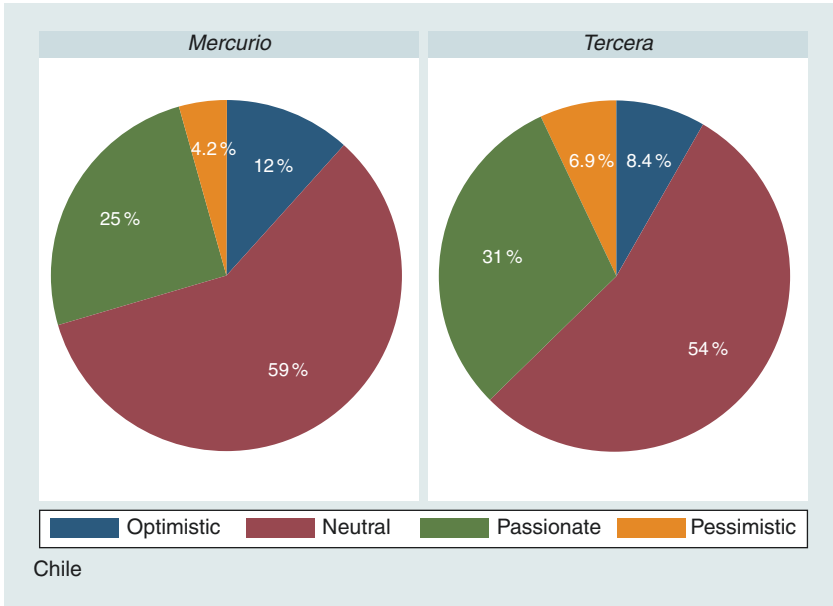
Fig. 5.10   Dominant tone of the news article by newspaper, Chile

constructions that help to marginalize minority voices and facilitate extractive activities.

In the particular case of Pascua Lama, the location of the mines in the north of the country meant prohibitively expensive and time-consuming travel and posed a serious deterrent to local reporting. Historically entrenched colonialist patterns that reinforce social exclusion, exact obedience to centralized power and promote the preponderance of structural racism further underscore the reason why the Chilean news media consistently fail to include non-elite sources in news accounts, specifically those that originate in the provinces and in the north of the country. Critical of the bias in the coverage, a female reporter concluded that, "There's a disregard for everything that comes from the province; which is perceived as poorer, blacker, and dirtier. We see this dynamic play out frequently." This criticism is supported by the results from our content analysis, which found that indigenous sources were seldom mentioned and rarely appeared as principal actors in the news reports about Pascua Lama.

Indeed, data analysis yielded evidence of a systematic pattern in the news coverage that conforms to Lester's (2010) appreciation of how environmental risk reporting de-legitimizes lay sources who lack the authority derived from association with institutional power:

> Ordinary people may routinely appear in such coverage, but if they have a role as a news source, it is often as victims, sufferers, little more than symbolic representations of the risk itself, and without the wherewithal to promote action and change. (2010, p. 103)

Furthermore, the widespread perception of lack of agency of provincial and indigenous peoples contributes to boost a positive perception of corporate job creation and social campaigns that exchange monetary or in-kind contributions for acquiescence to extractive enterprises. In the case of Pascua Lama, as impoverished local communities entered the employment of the mines or accepted direct and indirect income derived from the presence of Barrick Gold in the region, news media reported these transactional relationships as *beneficial* and as evidence to justify the continuation of the project (Urkidi 2010). What went unreported for the most part, according to a provincial reporter interviewed for this chapter, were the anonymous donations to local political campaigns and the corruption of community leaders, along with the encroachment of Barrick employees on the fabric of local political life. According to this reporter, the neoliberal model allows for corporate philanthropy to fulfill the social needs that have long gone unmet by the state:

> The concept of corporate social welfare and the Chilean neoliberal development model hold on to the principle that any development that generates employment and revenue is positive. There are fissures in the model . . . if the state guaranteed education and health, people would not need to accept corruption and local politicians would not accept bribes. If pay-offs and scholarships were not needed, there would be no environmental destruction.

Systemic cultural bias appears to limit further the scope of environmental coverage, insofar as it contributes to aggravate pressures and challenges reporters face from editorial agendas, resource retrenchment and established newsroom routines. All of the journalists interviewed for this study recounted instances when reporters were denied the opportunity to travel out of the capital to report from the news site.

On the one hand, the practice emanates from the paucity of resources allocated for local news coverage outside the capital; travel funding is almost non-existent and is only made available when an environmental crisis precipitates spot coverage, as in the case of oil spills. Given those limitations, few reporters ever gain access to local sources. On the other hand, systemic bias and overt racism also seem to play a role in daily editorial judgment. Several reporters spoke candidly about glaring ethical omissions when editors chose to disregard news of environmental risk in poor communities. Each reporter we spoke to relayed one or more examples of editors who turned down story pitches about conditions that affected underprivileged populations: according to them, often mining accidents went unreported unless companies were fined, and illegal trash dumping went unreported unless it happened in a wealthy neighborhood. In one particularly deplorable case, a journalist claimed he was denied permission to write about a foundry suspected of pollution in a town where several children fell ill. The editors repeatedly turned down the reporter's suggestion, only to run the story in 2008 after it became apparent that the toxic cloud might travel from the poor neighborhood and affect a wealthy beach enclave.

Whereas practical pressures of time, resources and access to sources constrain the ability of journalists to fully investigate or thoroughly report the nuances of complex news topics, a deficient educational system and the absence of specific training for reporters who cover scientific and technical matters also pose obstacles to those assigned to investigate news stories about environmental risk. Reporters we interviewed spoke about the paucity of resources for training and the handicap resulting from a troubled university system. Many reporters described their inability to accurately report scientific or technical aspects of environmental news stories for lack of training that would enable them to ask scientists the right questions. In this setting, strategic corporate public relations can more easily control the message, or gain the trust of reporters with the timely and expedient introduction of expert sources and the provision of data. Barrick Gold efficiently stepped into the educational void, offering workshops on mining for journalists assigned to cover the story in the Huasco Valley (Urkidi 2010). Absent independent knowledge that will allow a reporter to probe technical minutiae and the ability to investigate evidence of potential environmental risk, many of the causes and consequences of environmental hazards may go unexamined. In an interview, a reporter trained in Europe placed local environmental reporting in context:

> The environmental beat is in its infancy [in the Andean region]. It's on the rise, but the coverage is now at the point it was one century ago in the U.S. Reporters are not appropriately knowledgeable about scientific matters so they are not able to properly interview or question scientific experts. The news reports are almost exclusively reactions to crisis: oil spills, outbreak of contaminants, etc.

As noted elsewhere in other cases examined for this volume, reporters often described journalistic norms that displaced environmental stories from the front page to make room for political and economic news. As most of the news coverage took one of two predominant approaches: the threat that the gold mine represented to the watershed was either portrayed as the normal course of business, or in melodramatic ways that focused on the social or political conflict. Among the journalists we interviewed, those who claimed to have attempted to write a balanced account of events related that they often found themselves pressured by editorial agendas and quick access to readily available corporate and government sources. The journalistic norms and routines inherent in this dynamic have been found to contribute to an overexposure of official and elite sources, as identified by Bennett's (1990) indexing hypothesis, in ways that proliferate the nationalistic discourses of urban elites and compound the marginalization of local voices opposed to the project through the exclusionary scale of news frames.

Furthermore, precarious training and a deficient grasp of scientific knowledge challenge journalists, many of whom lack the competencies that would enable them to drill down on technical matters during interviews with sources. This educational deficit compounds a long-established and overarching tendency in the Chilean press (and elsewhere in the region) to frame reports as political or oppositional struggles. As Boykoff and Boykoff (2007) have shown, adherence to journalistic norms that privilege "personalization, dramatization, and novelty" impacts news balance in ways that adversely affect the selection and presentation of environmental news coverage. It was evident from our conversations that Chilean journalists were aware that this pattern prevails and overrides their ability to generate more nuanced coverage of stories about the environment. The pattern, further nurtured by a tendency to categorize opinions and views that originate from abroad in polarized or confrontational tones, can spark public opposition to contributions sourced among foreign experts, international researchers and other views from the outside.

The politics of profit versus water are clearly delineated in this arid area of the world by protest graffiti scrawled on the walls of Alto del Carmen, which spell the Spanish word for thirst (*sed* in Spanish) using a dollar sign in the place of the letter "s" to spell *$ed* (Bottaro et al. 2014, p. 102). On site, the extent to which local lives and culture are impacted becomes clear (Urkidi 2010). In the news, the distance from the source compounds a failure of reporting about angles that clearly represent a power struggle in a battle that pits essential water resources against the lure of corporate profits.

As the writing of this chapter drew to a close, Barrick Gold operations at Pascua Lama remained halted. Above Alto del Carmen, the glaciers gleamed white atop mountains filled with gold; the vast mineral wealth remained untapped and unseen, and clear water flowed down to the Huasco Valley below, where indigenous and farming communities irrigated orchards ripe with fruit cultivated for export. However, as one reporter predicted, "While there is gold in the *cordillera* and there are glaciers, there will be a vast appetite for extraction." For now, far from the headlines in a remote corner of the Atacama Desert, two of the scarcest and most precious commodities on our planet, gold and water, silently await a new round in the mediated dispute of a centuries-old struggle between those who live from the land and those who profit from it.

NOTE

1. Barrick Gold Securities Litigation, No. 13–03851.

REFERENCES

Bauer, C. J. (1998). Slippery property rights: Multiple water uses and the neoliberal model in Chile, 1981–1995. *Natural Resources Journal*, *38*(1): 109–155.

Bennett, W. L. (1990). Toward a theory of press-state relations. *Journal of Communication*, *40*(2): 103–125.

Bichueti, R. S., Da Rosa Gama Madruga, L. R., Gomes, C. M., & Da Rosa, L. B. (2014). *O uso da da água na mineração: Uma análise da produção cientifífica internacional* [Use of water in mining: An analysis of international scientific production]. *Revista de Gestão Ambiental E Sustentabilidade (Geas)*, *3*(2): 58–73.

Bottaro, L., Latta, A., & Sola, M. (2014, October). La politización del agua en los conflictos por la megaminería: Discursos y resistencias en Chile y Argentina [The politicization of water in mega-mining conflicts: Discourse and resistance

in Chile and Argentina]. *European Review of Latin American and Caribbean Studies*, *97*: 97–115.

Boykoff, M. T., & Boykoff, J. M. (2007). Climate change and journalistic norms: A case-study of US mass-media coverage. *Geoforum*, *38*: 1190–1204.

Consejo Minero [Mining Council]. (2016). *Minería en Cifras [Mining figures]*. Retrieved from http://www.consejominero.cl/

Cornejo, R., González, J., Sánchez, R., & Sobarzo, M. Opech Collective. (2011). The struggle for education and the neoliberal reaction. In X. Barra (Ed.), *Neoliberalism's fractured showcase: Another Chile is possible*. Leiden: Brill.

El Mercurio. (2011, May 29). Atacama: estimulante crecimiento regional [Atacama: Stimulating regional growth]. *El Mercurio*.

EMOL. (2013, Dec. 14). Minera Barrick reduce 1.500 empleos en mina Pascua Lama en Argentina {Barrick mining reduces 1,500 jobs at Pascua Lama mine in Argentina]. *El Mercurio*. Retrieved from http://www.emol.com/noticias/economia/2013/12/14/634857/barrick-reduce-1500-empleos-en-mina-pascua-lama-en-argentina.html

EMOL. (2014, Mar. 18). Comunidades de Huasco llaman a no dilatar los procesos [Huasco communities call to not delay the proceedings]. El Mercurio. Retrieved from http://www.emol.com/noticias/economia/2014/03/18/650459/comunidades-de-huasco-llaman-a-no-dilatar-los-procesos-en-contra-de-pascua-lama.html

Gitlin, T. (1980). *The whole world is watching: Mass media in the making and unmaking of the new left*. Berkeley: University of California Press.

Hasselback, D. (2014, April 25). Barrick faces $6B class action; Slow disclosure of Pascua-Lama problems: Suit. *National Post's Financial Post*, FP1.

Klein, N. (2015). *This changes everything: Capitalism vs. the climate*. New York: Simon and Schuster.

La Tercera. (2009, May 15). Variables ambientales y tributarias del proyecto minero Pascua Lama [Environmental and fiscal variables in the Pascua Lama mining project]. *La Tercera*.

Lester, L. (2010). *Media and environment: Conflict, politics and the news*. Cambridge: Polity.

Li, F. (2016, March 9). The defeat of Pascua Lama. *NACLA*. https://nacla.org/news/2016/03/09/defeat-pascua-lama. Accessed August 30, 2016.

Noam, E. M. (2016). *Who owns the world's media?: Media concentration and ownership around the world*. Cambridge:Oxford University.

Nolen, S. (2014, April 25). High and dry; Pascua-Lama was to be Barrick's modern El Dorado in the Andes. But modern natives can sue. *The Globe and Mail*, p. 42.

Pegg, S. (2006). Mining and poverty reduction: Transforming rhetoric into reality. *Journal of Cleaner Production*, *14*(3–4): 376–387.

Pellegrinin, S. (2010). *La pauta como factor de calidad y perfil editorial* {The news agenda as an issue of quality and editorial profile]. *Cuadernos De Información*, (27): 25–42.

Resource colonialism and the Chile–Argentina mining treaty. (2007, November). Fighting FTAs pp. 92, 93. Retrieved from http://www.bilaterals.org/

Rivera, D., Godoy-Faúndez, A., Lillo, M., Alvez, A., Delgado, V., Gonzalo-Martín, C., & García-Pedrero, Á. (2016). Legal disputes as a proxy for regional conflicts over water rights in Chile. *Journal of Hydrology*, *535*: 36–45.

Ross, J. (2005). Glaciers under threat by mining in Chile. *NACLA Report on the Americas, 39*(3).

Taillant, J. D. (2013). *Barrick's glaciers technical report on the impacts by barrick gold on glaciers and periglacial environments at Pascua Lama and Veladero.* Center for Human Rights and Environment (CEDHA). Cordoba: Argentina. Retrieved from http://wp.cedha.net/

Urkidi, L. (2010). A glocal environmental movement against gold mining: Pascua–Lama in Chile. *Ecological Economics*, *70*: 219–227.

Zeitlin, M., & Ratcliff, R. E. (2014). *Landlords and capitalists: The dominant class of Chile.* Princeton: Princeton University Press.

Mediated Neo-extractivism and National Development

On August 31, 2016, the Brazilian Senate voted to impeach President Dilma Rousseff for alleged corrupt budgetary practices. Rouseff, who had denounced the process since her suspension in May as a "soft coup," stepped down amid uncertainty for what lay ahead for South America's largest economy. Among the events leading up to the eventual impeachment was a huge corruption scandal linking projects awarded to construction companies and Petrobras, the national oil company, to millions of dollars in "donations" to Rouseff's party, the Workers Party. Watts (2016) wrote that at the center of the scandal was the Belo Monte mega-dam project, which a former president of one of the construction companies testified was:

> one of the main sources of funding for government parties.... [F]or conservationists and human rights activists, the allegations explain why Belo Monte went ahead regardless of concerns about its environmental impact and economic viability.... [S]aid Christian Poirier, program director of Amazon Watch[,] "...Aside from its looming ethical implications this scandal also reignites the debate as to whether the mega-dam should ever have been built, while revealing what forces lie behind Brazil's dam building boom."

In Chile, the mining project was still on hold. However, the president of Barrick Gold told Chilean media in 2016 the country was examining

possible partnerships to move forward with a drastically scaled-down version of the original project, emphasizing that the company will move ahead with the project "when the market is ready" (Valenzuela 2016). And as noted earlier, while the decades-long legal wrangling over the oil contamination in the Ecuadorian Amazon continued, the government opened up space in a national park along the border with Peru for potentially hundreds of new wells, the first of which began operations in 2016 (Vidal 2016).

As the twenty-first century opened, various South American nations were once again in the grip of frenetic extractivist activities aimed at feeding global commodity chains, which, according to national discourses, would provide riches to alleviate poverty and fund much-needed social programs. Such policies were not new. The countries in the region were again falling prey to what one journalist interviewed called "the historical baggage" that dooms governments to engage in risky and unsustainable remedies for poverty alleviation, which often do not work across long temporal and spatial scales. As Acosta (2013, p. 71) wrote:

> Ever since they were founded, Latin America's primary export republics have failed to establish a development model that would enable them to escape from the traps of poverty and authoritarianism. This is the great paradox: these are countries very rich in natural resources, and they may even be receiving significant quantities of cash revenue, but they have not managed to lay the foundations for their own development, and they continue to be poor.

Such historical ambitions dated back over centuries. European conquistadors arriving in the Americas chose to see these lands as "unpeopled" and that they could therefore now take ownership of vast natural resources for their own ends (Harden 1998, p. 683). Massive extractivist activities form the basis and principal mode of operation of global capitalism. Indeed, as others have written (e.g. Moore 2016), the capitalist state itself is the central environmental actor within capitalism, a system that depends on the transition of value from natural systems to human ones:

> Managing, mediating, producing and delivering nonhuman nature to accumulation is a core function of the modern, territorially defined, capitalist state. When we speak of capital having a metabolism, we must think of the state as an indispensable mediating membrane in that process. (Parenti 2016, p. 182)

For Latin America, basing national economies on national resource extraction and exportation also meant somewhat of a return to the nineteenth- and early twentieth-century economic strategies that were largely abandoned during the Great Depression, when commodity prices crashed and state interventions in economies shifted to new models (Di Filippo 2009). But by the early 2000s, in an age of multinational capital flows and globalized commodity production chains, neo-extractivist policies were, if not as Burchardt and Dietz (2014, p. 470) noted, "a consolidated development project," then at least a defining feature of a new economic model (Petras and Veltmeyer 2014, p. 24).

There were other agendas tied to this type of "commodities consensus" (Svampa 2015, p. 65). By strengthening social programs and intervening in extractive activities, administrations provided a mechanism to increase the role and presence of the state (Gudynas 2010). Acosta (2013, p. 72) noted the effort to expand social programs has also been a mechanism by which governments consolidate power through "clientelistic and authoritarian practices." Neo-extractive strategies set in motion a logic that prioritized cosmopolitanism and development discourses to further state agendas in the name of modernization, and at the cost of environmental quality, public health and cultural integrity. The drive to modernize and "evolve" according to the parameters set by a neoliberal global model of development presupposes that economic development is a desired outcome. The positivistic presumption that growth is sustainable, appropriate and endless is not a realistic or sustainable one, yet it is established and accepted as an unquestioned credo among governing elites in South America.

From the high elevation mines of the Chilean northern desert, to fossil fuels buried under the tree canopies in the Amazonian rainforest, to the energy boiling down the waterways of Brazil, a wide range of natural systems have become incorporated into the nationalistic discourse of modernization, development and social betterment. One need look no further than the countries' flags and coats of arms—emblems of branding from the nineteenth and twentieth centuries that hold into the twenty-first—to get a basic understanding of interfaces among nation-states, the ecological systems located within their boundaries, citizens, extractive industries and national and international media. The promise of "order and progress" (*Ordem e Progresso*) emblazoned across the Brazilian flag proclaims a colonial aspiration to the economic prosperity and democratic ideals of the global north. Chile's coat of arms declares rather ominously "For

reason or force" (*Por la razón ó la fuerza*), with a huemul (South Andean deer) and a condor saluting an early presidential hat. It's worthy of note that in the 1970s the latter animal became symbolic of the region's state-sanctioned campaign of terror and repression—"Operation Condor." The coat of arms of Ecuador also features a condor, on top of an encapsulated and idealized view of a snowcapped mountain and river. Each places the state as superior to natural and human life, poised to act in the name of order, logic or force, a visual reminder of the centrality of the state's focus on extracting and exporting rich natural resources as a means to achieving strategic national goals.

Resource extraction has resulted in various instances in devastating environmental degradation, and in some cases particularly severe health and cultural impacts on the populations living near the zones of extraction. Largely rural, often indigenous, but mostly poor and disenfranchised, these populations have long lived with social marginalization and difficulties in accessing full citizenship. Their protests over extractivist activities, while studied widely by researchers and echoed throughout international non-governmental organization networks, can be readily dismissed by political and economic elites (Veltmeyer 2012, p. 79).

We began with the premise that news is a social construction, and that in order to serve democratic public sphere debate, such constructions should include critical information about political and economic elite activities, as well as feature diverse perspectives and voices. This Habermasian ideal is just that, an ideal, and far from the reality, but public spheres of the twenty-first century are mediated and subject to forces existing at multiscalar levels and across various fields. In particular, media–state relations and media–market connections can be important to understand. Across Latin America, with the wave of the pink tide, the newly hardened "rock of the state" and the underlying relations with the "hard place of the market" (Park & Curran 2000) reconfigured institutional arrangements and brought about similarly ambiguous implications for media coverage, particularly of extractive activities and industries.

Given the centrality of the politics and economic strategies in the ecological conditions discussed here, how were the discourses, conflicts and contestations articulated for the region's citizens and global audiences? Having endured previous swings from free-market to state-centric development and back again, will they depict the perspectives and provide critical analysis for those combing through news pages and searching online for the "truth" of a conflict perhaps far from their homes and

foreign to their imaginations? Will they provide visibility to the invisible? Such constructions have significant import not only for public opinion but also policy and political outcomes.

Elite Urban Constructions of Rural Realities

Along with a lens of news as a social construction, we also borrowed from political ecology literature the critical lens that political and economic forces operating globally are at the heart of environmental problems. Such a view allowed us to examine news constructions by paying attention to issues of power and scale, as natural resource contestation involves social interactions and environmental processes over many different levels (Bolin et al. 2008; McCarthy 2005). We began with Bryant and Bailey's (1997, pp. 28–29) assertions that:

> [E]nvironmental change is not a neutral process.... Rather, it has political sources, conditions and ramifications that impinge on existing socio-economic inequalities and political processes.... Second, that an unequal distribution of environmental costs and benefits reinforces or reduces existing social and economic inequalities.... Thus, environmental change not only signifies wealth creation for some and impoverishment for others, it also thereby alters the ability of actors to control or resist other actors.

What we found was an ongoing failure—with some notable exceptions—of mediated coverage of international and ongoing environmental conflicts to provide adequate and consistent information from diverse perspectives, and that fostered public sphere debate of extractive activities, their costs and benefits. Scale, access, voice and agency were critical variables that emerged. The results from the content analyses provided support for the dominance of official narratives from urban centers that largely overpowered any opposition and worked to promote neo-extractivism as a mechanism for national development and urban human well-being.

In all three countries, media coverage was tightly indexed to official sources, frames and perspectives. Government and corporate actors, and their narratives, dominated media coverage. Environmental degradation and harm to health and culture were largely minimized and reframed. Mainstream media focused on energy needs, and deployed business, development and modernity frames because those were the dominant frames employed by political officials and national and international

economic actors. In Brazil, mainstream media coverage for the most part collapsed the vast scale and complexity of the topic into overly simplified mediated representations of intensely contested and politicized spaces that privileged political narratives of development and infrastructure to meet urban demand, while largely marginalizing and delegitimizing voices opposing the project by portraying them as anti-progress, misguided, problematic and un-nationalistic. In Chile, news largely promoted the perspective that extractive activities help national goals of growth, development and well-being, and normalized such activities as necessary, good and logical. And in Ecuador, the discussion of hazards to human health was subsumed into the conflict of a legal battle between the government and a multinational corporation that took on a nationalistic tinge but largely ignored the voices living near the zone of extraction.

Indeed, across the three countries' major mainstream media pages, frames that emphasized business and political perspectives of neo-extraction as a path to modernity, progress and development dominated, casting exclusionary lenses across perceptions of stakeholder value and tightly pegging the contestations along institutional or corporate lines. These frames changed over time and across temporal and geographic scales: at provincial levels, and often at the beginning of media coverage of contestation, melodramatic and fatalistic frames were employed, injecting chaos and drama into the story, or presenting the contestations as challenging a *fait accompli*, and thus indulging in a useless and wasteful struggle against a predetermined outcome. In both the overt and latent versions of these arguments, populations who objected to extractivist activities— usually those living near the extraction areas and suffering the health, cultural and environmental impacts of degradation the most—were either silenced or marginalized. This was exemplified directly in some cases, as in the energy research company president's statement that no sizeable population was at risk from future dam projects in Brazil, or the reporter who said any critics of the dam would be living by candlelight.

However, within the overall news content, most of these constructions were largely latent and not explicitly constructed as such. In Brazil and Chile, the majority of extractive themes within the news were either pro-extraction or balanced. Few presented an oppositional viewpoint. In Ecuador, where the extraction had happened and populations were living with the health impacts, the focus was on the legal battle, rather than on any discussion of regulation of extractive activities or sustainability moving forward. Some coverage did present opposing views: one-third of news

accounts in the Brazilian newspaper *Folha de São Paulo*, where 20 percent of stories carried local datelines, included the perspective of those opposed to extractivism.

Scale was a major issue. All three cases involved resources in remote areas, sites that might be classified as "sacrifice zones" that Klein (2014, p. 169) singles out as the out-of-sight areas that can be "poisoned, drained . . . destroyed" in order to improve life for others elsewhere. Having the degradation far from urban centers benefited state actors, and this lack of nuance in scale was pronounced in news content. Others have discussed various motivations states might have for reconfiguring scale with regard to sustainable development issues, including scaling up to avoid taking immediate action at the domestic level, and scaling down to avoid liability for international effects of domestic policies (Bastos-Lima and Gupta 2014, p. 396). As observed in the Ecuadorian case study, environmental risk and hazard were depicted at provincial scales, but those instances were vastly outnumbered by national and international discourses that moved the discussion away from environment and health to legal and public accountability frames. In Chile, the conservative *El Mercurio* was perhaps the most extreme example of total domination of national and international scopes. Brazil's *Folha de São Paulo* was more diverse in their scope, with a fifth of stories featuring a provincial dateline, and notably was the only surveyed here to dedicate a comprehensive multimedia feature on the dam conflict, in the style of the award-winning "Snowfall" project from *The New York Times*. It is worthy of note that this outlier, an award-winning special report that included local news-gathering, comprehensive and plural sources nonetheless was available only to a limited online audience and was not published in the print version of the newspaper, which has higher circulation.

Culture, Routines and Structures: "There Are Reporters Who Think They Sell Bread"

From the interviews, we observed variables operating at cultural levels, within confines of professional routines and norms, as well as at structural levels that impacted news coverage. The reproduction of state narratives was facilitated by structural factors that kept journalists largely at their desks in capital cities, and far from the remote areas where the contestation actually occurred. Structural transformations of newsrooms reduced

resources for investigative and environmental reporting, created a reliance on shared content, and demoralized journalists. The previous chapters detailed how increasingly limited resources for travel conspired with the priorities imposed by breaking political or economic news to relegate environmental coverage to the scrap pile. Many journalists we interviewed for this volume recounted instances of being denied travel money to cover stories. Cuts in newsroom professionals and resources also meant a reliance on wire services, and reprinting of the same article across news organizations. In the same vein, many spoke about how layoffs translated into fewer reporters in the field and effectively cannibalized reporting from rural areas. In every paper surveyed here, the environmental beat has been collapsed into other desks, contributing to environmental news reporting that is sporadic and mostly limited to spot breaking news coverage.

The reliance on official narratives, frames and sources is a well-established component of Western newsroom routines and journalistic norms. Here, they served to promote an understanding of the world from a perspective that favored extractivism as a means to achieve growth, development and elite economic well-being. To that end, it parallels what Couldry (2010) observed as neoliberalism being not only a discourse but also a hegemonic rationality and logical center. As Bsumek et al. (2014, p. 23) discussed:

> [N]eoliberal rationality constrains and constitutes subjectivity and agency. As such, neoliberalism limits the possibilities of what can be said, frames political controversies as primarily economic in nature, and reproduces neoliberal ideology, like the idea of a free market, as "common sense."

The use of coincidence analysis allowed us to identify complex and potentially causal relationships between actors, frames, scopes, opinions and emerging themes, as the geographic scope of the news was tied to access. Stories filed from provinces were among the few to quote local actors, including indigenous populations. Further, the geographic scope of the news was tied to the frame. Reports filed from provincial areas emphasized drama, human-centered stories and conflict; those from urban centers reinforced the state narrative. Knowing who is gaining access to the media outlets also tells us what to expect about the emerging themes. When principal actors were national governments or corporate sector actors, another observed trend was that the secondary actor would also be from those two categories, highlighting the application of the index hypothesis to this case. Reporters kept their interpretation and explanation

within the official lines of debate. In the few cases when an indigenous actor was principal, then another trend was that the national government would be a secondary actor, providing an immediate "balance" to the oppositional views. However, the overarching message across the three cases was that there was no reasonable argument that was more important than meeting the energy needs of growing populations.

In terms of access for rural populations, this meant that poor and rural populations, already almost invisible in Latin American mainstream news coverage (Waisbord 2010), had even less opportunity to access public sphere debate. Such structural transformations favored state narratives, as the populations directly confronting risk from extractive activities are far removed from urban centers and placed beyond easy reach of reporters working at metropolitan desks. Any power or authority they might have in the contestations was therefore made largely invisible.

Interviewees also discussed how, in some cases, corporate ownership governs the editorial line and may compromise the ethics of journalists who work in vertically integrated and highly concentrated media markets under the barest legal protection. In the end, the circulation drives editorial agendas. As one journalist put it:

> It's the role of the media to keep balance, and to give voice to the voiceless. Yet everyone chases after the same stories. In Chile, the "nature" of news is to chase novelty at the expense of in-depth analysis. There are reporters who think they sell bread. But if you don't show the voices that have been rendered invisible, that's an ethical problem.

Systemic failures in education were observed to affect civic awareness, professional behaviors and subject-matter expertise. Several journalists spoke of feeble university systems and inadequate training for journalists as a contributing factor for superficial reporting. Others addressed the systemic failures of paltry educational programs that deliver atomized knowledge, which hinders an individual's ability to understand the comprehensive and networked nature of environmental risk. Some attributed this to deficiencies in the educational system, while others volunteered that they themselves had very little knowledge about local communities in Amazonia or the Andes. When asked why frames depicting any middle ground, such as sustainability or even sustainable development, were largely absent from news coverage, journalists answered that there was little public education toward that end, and therefore little interest in

copy. Further, some said, given their perception that the business elite view sustainability as a burdensome "added cost," there was little possibility of such stories making the news.

Media–state alliances and promotion of economic interests, highlighting the ongoing intertwined interests of highly concentrated media oligarchies with political and economic elites (e.g. Sinclair 1999), were also singled out as influences.

The blurring of lines between public and private sectors and functions was also noted. A reporter in Chile spoke eloquently about how readily mining companies deployed corporate social welfare that overwhelmed the will of the poor in places where governmental resources and action had been absent, insufficient or inadequate over the course of centuries. On the one hand, industries have proffered copious financial incentives that drive the rural and indigenous poor to abandon their traditional homes, land and modes of livelihood. At another level, news accounts in each country reported stories of local, state, provincial and national leaders and politicians caught up in corruption scandals. Part and parcel of the industrial strategies are publicity campaigns, tinged "green" to sway public opinion, and the strategic use of corporate sources in targeted outreach to reporters on deadline.

To a certain degree, cultural perspectives on the role of nature in human society, extractivism as development and the perceptions of those who oppose it may have also influenced coverage. As Cottle (2006, p. 141) wrote:

> Whether depicted in terms of ... nature as pristine, timeless and pure, or through symbolic images of environment under threat, these culturally resonant images ... are underpinned by historically forged and culturally deep reservoirs of meaning ... organized around dualisms of the rural–urban, tradition–modernity, community–association and nature–society.

Various journalists interviewed for this volume were adamant about the utilitarian equation that urban demand (for electricity, oil, raw mineral materials and so on) must be met, and the ensuing environmental or social degradation tolerated in the name of development. In Brazil, for example, many of the interviews for this volume took place during a period of regular rolling blackouts in São Paulo. Press reports

framed them as the failure of the state to keep up with the energy demands of a growing and increasingly prosperous population in the midst of a booming economy, applying further political pressure to the administration. A reporter explained the perception of the overall mood at the time in terms of people's self-interest: "All people in São Paulo care about is whether they can juice up their iPhone when they plug it into the wall. They don't care in the least about what that does to the Amazon."

Predictably, in societies with structural racism and steep inequality, cultural biases regarding the role of nature in human society and social, cultural or racial cleavages may impact news accounts. Others have noted how, when indigenous actors are protagonists of news discourse, their actions are often portrayed as invasive, protest, disturbance of the peace, or they are depicted as figures rather than people. Conversely, government actors are positively rendered as carrying out the responsibilities expected of them in socially constructive ways, therefore supporting Euro-centric social hierarchies long observed in Latin America (Miller 2007; Soler-Castillo and Pardo-Abril 2009; Sundberg 2012; Van Dijk 2009). In Chile, a reporter discussed the systematic social exclusion of the poor as an inevitable outcome of highly centralized power. In Brazil, more than a few news accounts painted indigenous residents as contentious, primitive or ignorant, and hailed their forced relocation as an improvement. In Ecuador, residents' claims of ill health and contamination were increasingly lost among news accounts of corporate claims that dismissed the case against them as based on junk science, or attributable to corrupt officials.

Perceptions of nature as expendable and extraction zones as invisible also emerged. This dynamic supports the idea of rural environmental degradation as "sacrifice zones." Whether these "sacrifice zones" refer to dams that constrict mighty Amazonian rivers, pristine glaciers atop subterranean fields of gold in the Andes, or the sheen of viscous black oil that covers formerly thriving Ecuadorian forest, what they share in common is that they all occupy the void where a deficient state has been unable to satisfy the basic needs of its population. Within this space of invisible sacrifice zones inhabited by the voiceless poor, the opposition then becomes redundant and cast out as foreign, different and not part of the collective, the national, or those with the power and therefore the reason. Opponents' arguments and knowledge becomes silenced, and their powerlessness becomes formalized. Journalists writing copy from concrete

buildings in São Paulo, Santiago or Quito were far removed from the zones they covered and already working from within unequally structured scales. They didn't hear the voices in the zones of contestation, such as the Munduruku tribal chief who said in an interview, "Not only the Munduruku will suffer; everyone will suffer. We are defending the Brazilian people."

One can look at these three cases from three different points of view. Individually, the economic structure of each country is the result, at least in part, of the sum of its own history. On the one hand, the extensive privatization of the economy in Chile under Pinochet provides a good example of what neoliberal policies combined with a fascist ideology can do to marginalized groups. On the other hand, the cases of Brazil and Ecuador are examples of military regimes that emerged as a consequence of *caudillos* portraying themselves as "redeemers" with Marxist ideas taken to the extreme, whose promises of progress presented rural and indigenous groups as representations of underdevelopment, or as a return to the Hobbesian state of nature. Part of this legacy may explain the differences in sources, frames, tone and themes that emerged from our content analysis. It is not random that corporate-driven ideas were more prevalent in Chile than in Brazil or Ecuador. Or that ideas of national prerogatives and development were more prevalent in Brazil and Ecuador than in Chile.

From a regional perspective, the three cases display common regional structural problems. Latin America is one of the most unequal regions in the world whose democratic institutions are yet to be fully consolidated. The concentration of power in key industries and the lack of an effective regulatory framework that promotes competition favors profit over social justice. This is also true for the media industry. This reality, plus the contradictions embedded in an economic model that relies on the exploitation of natural resources, has created a vicious cycle that makes it almost impossible to foresee a viable solution in the short run.

If we look at the big picture: although there are international regulations intended to prevent abuses against indigenous communities, the regulation itself has "nebulous areas" that allow governments to authorize development projects regardless of the consequences for the local communities directly affected by them (Barelli 2012). This is something that is not particular to Latin America, but something that happens around the world as a cost of globalization. Official lack of sympathy and

understanding for indigenous communities—whose cosmovision of the environment clashes with a neoliberal model that has expanded globally—and the ensuing lack of access to mediated public spaces for their perspectives are major obstacles not only to living in a more inclusive society but also mitigating some of the worst effects of environmental degradation. And this may be one of the larger failures of mainstream media coverage of environmental contestations.

Conclusions

> How can we understand the gravity of the global environmental crisis? How can we reach the conclusion that this is not only the environmentalists' struggle? This is humanity's struggle. This must be present as a value and as concrete action inside corporations, government, and academic circles and what I call the "new mindfulness of society." When the majority of civil society determines that it does not wish to get its energy at the cost of indigenous peoples, then things will change. It is key that we understand this as everyone's problem, not a single group's problem. (Marina Silva, personal conversation, May 9, 2015)

The three case studies of environmental contestations tracked here largely served to advance elite discourses that support natural resource exploitation in the name of development that exacerbates the "tragedy of the commons." Coverage that systematically marginalizes opposition to neo-extractive industries that degrade environmental systems and cultural integrity essentially facilitates the destruction of ecological systems, the dismantling of cultural heritages, and the decimation of communities, in the name of economic development that has not materialized consistently for broad swathes of the population.

In an age of accelerating climate change, extreme inequality and ongoing environmental degradation, mainstream narratives can no longer afford to contain discourse within nationalistic confines of development and economic growth. Globally, centuries of extractive activities in capitalist systems are resulting in not only environmental degradation but also the loss of natural systems and biodiversity that threatens the very existence of humanity. Contested neo-extractivist activities and official responses to them should be communicated in mediated arenas in new ways, ones that more fully articulate the costs and benefits, that listen to a wide range of voices and provide better analysis of the arguments. If public

sphere debate is to situate it as a salient and important topic, extractivism needs to be discussed in new ways and along glocal scalar constructions that do not serve to privilege any particular actor, only the public right to know. However, opposition to such activities is too often silenced, marginalized, reframed or ridiculed, as twenty-first-century neo-extractivism has been adopted by some states as a national development strategy. Opponents face the sheer granite walls of state narratives that characterize any opposition to such industry as anti-modernity, anti-progress and anti-state. Official rationales often given for extractive activities include economic benefits leading to social well-being, but the distribution of these benefits has been unequal (Gao 2015). And as the economy of China slows—the chief importer for many of the commodity exports from Latin America—the region may be poised for economic recession once again (Harrup 2016).

At the highest levels of government, the consensus that agrees to sacrifice environmental and mineral resources to advance the interests of multinationals whose financial contributions finance public services comprises yet another form of "corruption"—that of the failure to acknowledge that natural resource extraction at any cost is neither a sustainable nor a desirable means of production. With a few exceptions, notably from coverage from *Folha de São Paulo* and *La Tercera*, the mainstream news and news professionals surveyed here provided insight into the devastating consequences of the indexing hypothesis when applied to large-scale extractivism activities in developing nations. The confluence of environmental attitudes and perceptions of nature–society arrangements, scalar constructions, news production routines, professional orientations, structural transformations, and ongoing racial and classist societal cleavages have all led to massive environmental degradation, the renewal of legislation protecting extractivist activities, and ensuing cultural and human health harms, in the name of national development, progress and the Quixotic search for "modernity." If the news media cannot closely follow, let alone comprehend, the devastation wrought by massive extractive undertakings buried deep in the Amazon jungle or perched high above Andean mountaintops, how can they effectively function as gatekeeper or amplifier of the risks posed by these controversial projects?

This state of affairs also represents a profound failure to nurture a meaningful civil society by providing for diverse voices in the public

sphere. We share Freidson's (2001) view that journalism's professional ideology should serve to raise the quality of public sphere debate and serve the public good. Such a perspective frees the idea of professionalism from ties to institutional objectives, something worth considering when the institution is located within hyper-commercialized, oligarchic or concentrated fields. Rather, the reflex should be to serve the public good:

> Whether specific actions contribute to the larger public good by providing independent and authoritative judgment is the true measure of professionalism. Professionals are moral custodians who offer knowledge and expertise that benefit society at large. (Waisbord 2013, pp. 125–126)

News logics and professional values not in some way oriented toward civic rights and participation, and that include editorial and professional biases of journalists, editors and publishers, should be restructured in light of their failure to critically examine national development rhetorics (Waisbord 2011; 2013, p. 122). Media coverage that consciously or unconsciously ignores voices and perspectives marginalized by structural arrangements and personal orientations regarding class, race and ideology are complicit in this degradation. Disproportional news coverage monopolized by political and private interests represents a failure globally of news media, public and private sectors, which encourage a trade-off of long-term well-being for short-term economic gain, the very definition of what Hardin (1968) famously defined as the "tragedy of the commons." The invisibility of such tragedies, whether it be exclusion of voices or images, what some have called the "imagery of threat" (Corner and Richardson 1993) has profound implications for a society's ability to interpret and understand consequences of such degradation.

However, looking forward, there are reasons to hope. Environmental movements that have had success accessing and changing national narratives; mainstream coverage that allows oppositional views to be given voice and access; and growing public awareness of the dangers posed by runaway climate change and environmental degradation are all positive signs that the struggle to address powerful narratives on equal terms may be changing. Waisbord (2010) discussed three interventions to provide for better democratic performance of media in Latin America, including ownership

diversification, more transparency and public participation in the use of public resources that would serve to reduce media patrimonialism, and buttressing journalism practice by providing better training programs and more support for professional associations.

In all three countries, activism by indigenous groups and other residents had varying degrees of success through networking into international circles of environmentalism, human rights and other groups that brought more attention to their struggles. In Chile, in particular, local groups celebrated the halt of Barrick's gold mine as a new moment in the struggle against unbridled extractivism, which represented a shift away from what Li (2016) called the "financial and technological optimism" that characterized the region at the turn of the twenty-first century:

> Political borders were not an impediment, but could be put aside through a bilateral mining treaty. Even glaciers could not stand in the way of extraction—they could simply be moved, or the mining pit limits redrawn. This optimism started to fade as the Chilean and Argentinean governments argued over the distribution of taxes, and the company faced local opposition and international environmental campaigns against the project. (Li 2016)

Li credits increased activism with the greater visibility provided to the costs of neo-extractivism and therefore increased pressures on national governments to consider public opinion when deliberating investment in neo-extractive activities.

Increasingly, interdisciplinary research examining the role of communication and media in climate change is providing rich data and information for academic and general audiences. Various universities across Latin America have programs in environmental communication and journalism. In Latin America the Center for Integrated Studies of the Environment and Climate Change (Universidade Federal do Rio de Janeiro), the Amazonian Institute of Environmental Research, the Center for Meteorological and Climate Research Applied to Agriculture (Universidade Estadual de Campinas), the Polar and Climate Center (Universidade Federal do Rio Grande do Sul), the Center of Science and Climate and Resilience CR^2 (Universidad de Chile), the Center of Sea and Atmospheric Research (Universidad de Buenos Aires), the Mexican National Institute for the Environment

and Climate Change, among others, bring together scientists from across disciplines to provide comprehensive understandings of environmental issues. Globally, such efforts are under way at centers and institutes such as the Yale Program on Climate Change Communication, the Center for Climate Change Communication (George Mason University), the Tyndall Centre for Climate Change Research (University of East Anglia), Sea Level Solutions Center (Florida International University) and the Precourt Energy Efficiency Center (Stanford). Media studies, inherently interdisciplinary, has a rich and growing body of work that examines communication and environmental issues; analysis of climate change is particularly on the increase (e.g. Anderson 1997; Boykoff 2011; Boykoff and Boykoff 2007; Carvalho 2007; Hansen 1993, 2011; Lester and Hutchins 2013; Peeples and Depoe 2014; Senecah 2004). Studies that examine interfaces among ecological processes or issues with political institutions, processes and actors provide new knowledge of communicative spaces and functions (e.g. Dryzer 2013; Latta and Wittman 2012).

Theoretical constructs and dimensions between disciplines offer new opportunities to understand issues of power, hegemony, scale and social constructions in discourse regarding the natural world. The need for such broad and comprehensive collaborations will only grow as societies face deepening crises and contestations over natural resource use and management in an age of accelerating climate change. As Miller (2007, p. 7, 227) wrote:

> In our long struggle with nature, true victory cannot envisage *Homo sapiens* as the last one standing. . . . But as an authentic nature slowly slips through our hands, as reefs and forests disappear, our touted powers, which may in fact allow us to live like astronauts who have severed their umbilical cords to mother earth, are not powerful enough to resurrect what is being lost.

As the twenty-first century unfolds into continuing and accelerating climate change that has significance for the quality of human health, it is our hope that media coverage everywhere will reflect a wider swathe of the voices, a deeper examination of the issues and mechanics and a more critical analysis of elite narratives. That type of content can help provide global societies with much-needed nuanced

information, explanation and interpretation, and ultimately with the agency to make collective decisions that benefit and protect the public good.

References

Acosta, A. (2013). Extractivism and neoextractivism: Two sides of the same curse. In M. Lang & D. Mokrani (Eds.), *Beyond development: Alternative visions from Latin America* (pp. 61–86). Amsterdam: Transnational Institute.

Anderson, A. (1997). *Media, culture and the environment.* New Brunswick, NJ: Rutgers University Press.

Barelli, M. (2012). Free, prior and informed consent in the aftermath of the UN declaration on the rights of indigenous rights: Developments and challenges ahead. *International Journal of Human Rights*, 16(1): 1–24. doi:10.1080/13642987.2011.597746.

Bastos-Lima, M. G., & Gupta, J. (2014). The extraterritorial dimensions of biofuel policies and the politics of scale: live and let die?. *Third World Quarterly*, 35(3): 392–410.

Bolin, B., Collins, T., & Darby, K. (2008). Fate of the verde: Water, environmental conflict and the politics of scale in Arizona's central highlands. *Geoforum*, 39: 1494–1511.

Boykoff, M. (2011). *Who speaks for the climate? Making sense of media reporting on climate change.* Cambridge: Cambridge University Press.

Boykoff, M. T., & Boykoff, J. M. (2007). Climate change and journalistic norms: A case-study of US mass- media coverage. *Geoforum*, 38(6): 1190–1204.

Bryant, R. L., & Bailey, S. (1997). *Third world political ecology.* London: Routledge.

Bsumek, P., Schneider, J., Schwarze, S., & Peeples, J. (2014). Corporate ventriloquism: Corporate advocacy, the coal industry, and the appropriation of voice. In J. Peeples & S. Depoe (Eds.), *Voice and environmental communication* (pp. 21–43). London: Palgrave.

Burchardt, H. J., & Dietz, K. (2014). (Neo-) extractivism—a new challenge for development theory from Latin America. *Third World Quarterly*, 35(3): 468–486.

Carvalho, A. (2007). Ideological cultures and media discourses on scientific knowledge: Re-reading news on climate change. *Public Understanding of Science*, 16(2): 223–243.

Corner, J., & Richardson, K. (1993). Environmental communication and the contingency of meaning: A research note. In *The mass media and environmental issues*, 222–233. Leicester: Leicester University Press.

Cottle, S. (2006). *Mediatized conflict.* New York: Open University Press.

Couldry, N. (2010). *Why voice matters: Culture and politics after neoliberalism.* Thousand Oaks, CA: SAGE.

Di Filippo, A. (2009). Estructuralismo latinoamericano y teoría económica [Latin American structuralism and economic theory]. *Revista CEPAL, 98.* http://www.cepal.org/es/publicaciones/11303-estructuralismo-latinoamericano-y-teoria-economica. Accessed May 5, 2016.

Dryzek, J. S. (2013). *The politics of the earth: Environmental discourses.* Oxford: Oxford University Press.

Freidson, E. (2001). *Professionalism, the third logic: On the practice of knowledge.* Chicago: University of Chicago Press.

Gao, G. (2015, July 20). Latin America's middle class grows, but in some regions more than others. *Pew Research Center.* http://www.pewresearch.org/fact-tank/2015/07/20/latin-americas-middle-class-grows-but-in-some-regions-more-than-others/. Accessed May 9, 2016.

Gudynas, E. (2010). *The new extractivism in South America: ten urgent theses about extractivism in relation to current South American progressivism.* Americas Program Report. Washington, DC: Center for International Policy.

Hansen, A. (Ed.). (1993). *The mass media and environmental issues.* Leicester: Leicester University Press.

Hansen, A. (2011). Communication, media and environment: Towards reconnecting research on the production, content and social implications of environmental communication. *International Communication Gazette*, *73*(1–2): 7–25.

Hardin, G. (1968). The tragedy of the commons. *Science*, *162*(3859): 1243–1248.

Hardin, G. (1998). Extensions of the "tragedy of the commons." *Science*, *280* (5364): 682–283.

Harrup, A. (2016, April 12). South America suffers from end of commodity boom. *The Wall Street Journal.* http://www.wsj.com/articles/south-america-suffers-from-end-of-commodities-boom-1460487125. Accessed May 9, 2016.

Klein, N. (2014). *This changes everything: Capitalism vs. the climate.* New York: Simon & Schuster.

Latta, A., & Wittman, H. (2012). *Environmental citizenship in Latin America: Natures, subjects and struggles.* New York: Berghahn Books.

Lester, L., & Hutchins, B. (Eds.). (2013). *Environmental conflict and the media.* New York: Peter Lang.

Li, F. (2016, March 9). The defeat of Pascua Lama. *NACLA.* https://nacla.org/news/2016/03/09/defeat-pascua-lama. Accessed August 30, 2016.

McCarthy, J. (2005). Scale, sovereignty and strategy in environmental govern-ance. *Antipode*, *37*(4): 731–753.

Miller, S. (2007). *An environmental history of Latin America*. Cambridge: Cambridge University Press.

Moore, J. (2016). *Anthropocene or Capitalocene? Nature, history and the crisis of capitalism*. Dexter, MI: PM Press.

Parenti, C. (2016). Environment-making in the Capitalocene: Political ecology of the state. In J. Moore (Ed.), *Anthropocene or Capitalocene? Nature, history and the crisis of capitalism* (pp. 166–184). Dexter, MI: PM Press.

Park, M. J., & Curran, J. (2000). *De-Westernizing media studies*. London: Psychology Press.

Peeples, J., & Depoe, S. (Eds.). (2014). *Voice and environmental communication*. New York: Palgrave.

Petras, J., & Veltmeyer, H. (2014). *Extractive imperialism in the Americas: Capitalism's new frontier*. Boston: Brill.

Senecah, S. (Ed.). (2004). *The Environmental communication yearbook*, (pp. 1). Mahwah, NJ: LEA.

Sinclair, J. (1999). *Latin American television: A global view*. Oxford: Oxford University Press.

Soler-Castillo, S., & Pardo-Abril, N. G. (2009). Discourse and racism in Colombia: Five centuries of invisibility and exclusion. In T. Van Dijk (Ed.), *Racism and discourse in Latin America* (pp. 131–170). Lanham, MD: Lexington.

Sundberg, J. (2012). Negotiating citizenship in the Maya Biosphere Reserve, Guatemala. In A. Latta & H. Wittman (Eds.), E*nvironment and citizenship in Latin America: Natures, subjects and struggles* (pp. 97–111). New York: Berghahn.

Svampa, M. (2015). Commodities consensus: Neoextractivism and enclosure of the commons in Latin America. *South Atlantic Quarterly, 114*(1): 65–82.

Valenzuela, C. (2016, March 1). "Pascua Lama: Barrick anuncia 'reformulación total' y admite que aceptaría sumar un socio" [Pascua Lama: Barrick announces "a total reconfiguration" and admits it would accept taking on a partner]. *Pulso*. pulso.cl. Accessed August 24, 2016.

Van Dijk, T. (Ed.). (2009). *Racism and discourse in Latin America*. Lanham, MD: Lexington.

Veltmeyer, H. (2012). The natural resource dynamics of postneoliberalism in Latin America: New developmentalism or extractivist imperialism? *Studies in Political Economy*, *90*(1): 57–85.

Vidal, J. (2016, April 4). Ecuador drills for oil on edge of pristine rainforest in Yasuni. guardian.co.uk. Accessed August 20, 2016.

Waisbord, S. (2010). Latin America. In P. Norris (Ed.), *Public sentinel: News media and governance reform* (pp. 305–328). Washington: World Bank.

Waisbord, S. (2011). Can NGOs change news?. *International Journal of Communication*, 5: 142–165.

Waisbord, S. (2013). *Reinventing professionalism: Journalism and news in global perspective*. New York: Polity.

Watts, J. (2016, April 8). Brazil: Insider claims Rousseff coalition took funds from Belo Monte mega-dam. *The Guardian*. guardian.co.uk. Accessed August 24, 2016.

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