Extraction, inequalities and territories in Bolivia

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Abstract

Since the later 1990s, conflicts over extractive industry development have emerged as one of the most visible and potentially explosive terrains for struggles over distribution and inequality in the Andean region. These distributional conflicts fall out around different axes of social and geographical difference: within communities, among ethnic groups, between localized populations and extractive industry companies, between regions and the central state, between national states and transnational enterprises, and also among different states within Latin America. This paper explores these scaled conflicts for the specific cases of mining and natural gas in Bolivia. It analyzes their sources and their characteristics, as well as the ways in which they influence territorial and national development dynamics. The empirical material is drawn from on-going research in Oruro (mining) and Tarija (gas), and is approached through three analytical frames: political ecology, social movements theory, and territorial approaches to rural development dynamics. The paper locates the Bolivian material within a broader Andean context by drawing on the larger research initiative of which these case studies are a part. On this basis it elaborates conclusions of broader relevance.

I. Introduction: extractive industries, Bolivian territories

Extractive industries are those economic activities that hinge around the withdrawal of a natural resource while making no effort to replace that resource: either because the resource is non-renewable (hard rock minerals, hydrocarbons etc.) or because the agent doing the extraction is simply uninterested in replacing the resource (as is normally the case with extraction of timber from primary forest). In old stages of growth interpretations of economic development, such industries often figured prominently in early phases of economic transition, to be replaced progressively by manufacturing and service sectors as primary motors of growth and sources of GDP. Dependency interpretations, noting the continuing dependence of "peripheral" national economies on resource extraction and primary production produced different interpretations, questioning the inevitability of transition to more diversified economies. Structuralist informed thinking located the source of this problem in declining terms of trade for primary products, while *dependentistas* placed more emphasis on the power of metropolitan centres to define mechanisms for the transfer of wealth to the global core. Subsequent theories of the resource curse, while informed more by themes in institutional economics and broader discussions of governance in development, have made similar observations to those made by *dependentistas* and structuralists. They note the frequent inability of such economies to escape from their dependence on resource extraction, as well as the tendency for extractive economies to be accompanied by no significant improvement in (and often worsening) levels of poverty, inequality and social conflict.

Meanwhile, broadly neoliberal approaches to policy advice have encouraged countries both globally and within Latin America to attract greater investment in natural resource extraction by simplifying mineral codes, providing enhanced investment security in the extractives sector, reducing royalty rates and easing profit repatriation. The argument here, going back somewhat to the stages of growth framework, is that many Latin American countries have a geological comparative advantage in extractives, that extractives can generate badly needed tax income, and that this can be used for infrastructural investments and more recently social policies (though in interviews, senior officials at some of these agencies recognize that their thinking is still very underdeveloped on the ways in which extracted natural capital is *actually* translated into public investments that support growth in human, financial, human-made and other forms of capital).

While many of these arguments are cast at an economy wide level, they also have manifest territorial implications. More than almost any other economic activity except perhaps agriculture, extractive industries are territorially bound. At the very least, the act of extraction occurs in geologically defined locations. Product processing can be done at other locations at varying distance from the point of extraction (particularly so for hydrocarbons) but all economic activity associated with extracting is anything but footloose. The promotion of extractive industry therefore necessarily introduces a series of territorial unevennesses into national dynamics.

This in itself ought not to be especially significant – all economic activities are uneven. Indeed, the most recent World Development Report *Reshaping Economic Geography* (World Bank, 2008) suggests that unevenness should in a more general sense be encouraged on the grounds that agglomeration of economic activities in particular places increases efficiencies. Instead, they suggest, the emphasis should be on developing policy instruments that encourage territorial inequalities in the concentration of economic activity and on combining these with other instruments that then foster greater equality in the welfare effects of this economic activity (both by encouraging more people to move towards centres of economic activity and by using social policies to redistribute the benefits of economic activity). However, we will suggest that the territorial unevenness of extractive industry introduces a series of particularly thorny inequalities both within and between territories – the thorniest of which is an inequality in relationships of power – and that this brings particular challenges for inclusive patterns of territorially based development. In the language of a rather different World Development Report on *Equity and Development*, this extractive industry, especially in its modern form, generates problems of inequity which in turn produce a series of inequalities (World Bank, 2005). The origin of these inequalities in real and perceived relationships of inequity creates situations that are particularly prone to levels of social conflict which rapidly become endogenous to territorial (and inter-territorial) dynamics. Governing inequity (and inequality) such that such self-sustaining conflict does not emerge therefore becomes central to the possibility of achieving territorially based patterns of development that reduce poverty, foster growth and ultimately reduce inequality (c.f. similar arguments in Bebbington, Dani, de Haan and Walton, 2008 for sectoral and national development).

The challenge of governing extraction such that intra and inter-territorial inequalities do not spill over into sustained conflict and ultimately give way to enhanced equity is very real in Bolivia. During 2008, levels of conflict within several of Bolivia's regions, as well as between those of Bolivia's lowlands and the central government, reached levels rarely seen in that country. While many factors were at play in this conflict, the territorial distribution of natural resource rents was one of the most important in departments such as Tarija, Santa Cruz and even to some degree Chuquisaca. Indeed, one of the catalysts, if not causes, of the conflict was a decision on the part of the central government to redirect part of the public sector rents generated by extractive industry away from producing regions, and into national social investment and protection programs. Meanwhile, as we will suggest later, how inequalities and inequities (real and perceived) related to extractive industry are managed will go a long way in determining the cohesiveness and success of the current Movimiento al Socialismo (MAS) government's ostensible efforts to build a post neo-liberal Bolivia. One of the most significant threats to the cohesion of MAS's social foundation in the eastern departments derives precisely from the ill-feeling generated by the way in which MAS is perceived to be handling the extractive economy in lowland indigenous territories (juridical and claimed).

The paper proceeds as follows. First we discuss the different ways in which the expansion of the extractive economy deepens inequities and produces new inequalities within and between territories. We consider the ways in which this process can generate conflicts and discuss the significance of the way in which such conflict is managed. We pay particular attention to possible pathways for the reduction of inequity over time. With these more conceptual points of reference we then take the discussion to two departments of Bolivia: the eastern department of Tarija, where we focus on the Chaco lowlands in which natural gas deposits are concentrated; and the highland department of Oruro, a historical and contemporary centre of mining activity. On the basis of the two cases and the conceptual discussion we present conclusions regarding the conditions under which different types of inequity associated with the extractive economy might be governed in ways that foster tendencies towards reduced inequality and poverty and more inclusionary patterns of growth.[1]

II. Extraction, inequality and territorial dynamics

Territorial dynamics: why inequality and inequity matter to development[2]

Understood normatively, territorially based rural development refers to area based processes that, within a given territory, reduce poverty and inequality while also fostering economic growth and environmental improvement. There are several reasons to suggest that existing relations of inequality present particular challenges to the pursuit of this goal.

The first set of reasons derive from the observation that prevailing relationships of power work to the disadvantage of those at the bottom of the hierarchy. Put simply, some groups benefit from the perpetuation of inequitable political relationships that give more voice to them than to others, thereby allowing them to exercise privileged influence over the structure of society through a range of political, social, and symbolic practices. These inequalities in the control of assets and institutions create unequal relationships of power, which the more powerful use to sustain their positions of advantage. Meanwhile, those whom one would expect to value equity more highly possess less voice, with the knock-on effect that normative arguments against inequality tend to be underrepresented in public debate and policy formation. This lack of representation can happen for many reasons. Voter registration programs (or constitutions) may have excluded the disadvantaged from exercising the right to vote (Keyssar, 2000), poor or no access to education may mean they lack the human capital that gives them greater capacity to formulate and express their voice (Sen, 1999), and a variety of other disadvantages (and possibly political repression) may block the emergence or reduce the effectiveness of mass and political organizations through which these concerns might otherwise have been represented.

Second, the poverty-reducing effects of economic growth fall off when inequality is greater. This might be because these distributions reduce the trickle-down effects of growth or simply because much more growth must occur to bring those at the tail of the distribution out of poverty. The point here is that the higher the level of inequality in a given territory, the lower the poverty reduction effects of any given rate of growth in that territory, all other things being equal.

Third, inequalities in asset distributions may have negative effects on economic growth. Where a territory's wealth is concentrated in a small segment of society and large parts of the population lack assets, consumer markets will remain limited, thereby reducing the scope for business creation and growth (though others suggest that export markets can offset that effect). Meanwhile, those at the top end of the distribution of income in a territory will tend to consume imported rather than

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[1] Hinojosa is responsible for the Oruro fieldwork and statistical analysis; Humphreys Bebbington for the Tarija fieldwork; and Bebbington for coordination and synthesis.
[2] This subsection draws heavily on Bebbington et al. 2008a.

regionally produced goods. Unequal distribution of wealth can also be accompanied by economic inefficiencies. One example here is credit distribution under conditions of asset inequality. When economic institutions lead to the exclusion of poorer groups from credit or insurance markets, this scenario necessarily curtails investment and hurts growth.

Recent literature on institutions and economic development has also argued that economic and political inequities interact with other inequalities, resulting in pernicious consequences for growth. While these arguments are cast at a national level, they are doubly relevant at a territorial level: first because there is reason to expect that similar sets of relationships will operate at this level, and second because the ways in which these relationships work out nationally are likely to benefit some territories more than others. One of the starting points in this literature has been that economic dynamics and innovation depend on competitive processes of entry that are stifled by unequal economic institutions. However, historical analysis of differences in long-run economic performance supports the view that political inequalities are often accompanied by predatory, extractive economic institutions that are associated with poor long-term economic performance, especially for industrialization (Acemoglu, Johnson, and Robinson 2001; Engerman and Sokoloff 2002). A complementary argument derives from Peter Lindert's (2003, 2004) historical analysis of growth and social expenditure in the Europe and the United States. One of Lindert's central conclusions is that greater equity in political institutions (in the ability to express voice) is good for growth because it is associated with broader and better-quality public provision of education—particularly primary education. Better education, in turn, translates into a better-performing workforce. Thus, while Acemoglu, Johnson, and Robinson argue that political inequalities can translate into predatory economic institutions, Lindert argues that greater political equity translates into institutions that are more likely to encourage the types of investment that foster growth. The question, of course, is how equitable institutions emerge, a point to which we will return.

A final argument approaches these relationships from a different angle, contending that inequalities and inequities can themselves generate forms of collective behavior that impede growth. The essence to this line of reasoning is that inequalities can lead to social protest, as well as to institutional forms that make it difficult for opposing interests to negotiate this protest. The propensity for this protest to spill over into violence is thus greater. Such violence and unrest can create uncertainties about the enforceability of contracts; increase transaction and operational costs for businesses, which must guard against violence; reduce the extent to which actors in the global economy want to invest in such environments; and require the diversion of public spending toward controlling violence and away from social investment.

Extraction and territorial dynamics: why extractive industries matter

If there is an inverse relationship between inequality and the quality of development, then there are reasons to expect that the rise of extractive industry might have adverse effects on territorial development through its impacts on levels of inequality.

Resource curse arguments take a number of the points discussed in the preceding section and elaborate them for the case of economies dominated by extractive industry. In essence these arguments suggest that the dominance of a mineral economy generates a series of economic and political distortions that ultimately undermine growth, and lead to forms of capitalist development accompanied by continuing poverty and inequality (Humphreys et al., 2007; Bebbington et al., 2008b).

Part of the resource curse argument is a "purely" economic one regarding the market volatility and adverse exchange rate effects of mineral dependence. However, much of the argument rests on the ways in which mineral dependent economies at once create new forms of inequality *and* interact with existing forms of inequality in ways that tend towards reduced transparency in economic management, increased levels of social conflict and increased rent-seeking behaviour. Such arguments about the resource curse at a national level can also be rehearsed at sub-national, territorial scales (Arrellano, 2008a, 2008b).

There are several ways in which the arrival of extractive industry can aggravate relationships of inequality. Most significant is the way in which the arrival of an extractive enterprise introduces a new dimension of inequality in a given territory – namely an imbalance of power on a scale quite different from prior relations of inequality within a territory. The extractive enterprise – because of its scale, the resources at its disposal, and the direct contacts it typically has with both national and regional political authories – appears as an actor with significantly more power than others in the territory. This power gives it the capacity to sponsor candidates in local and regional elections, to sponsor social organizations with gifts and programmes of various types, to assume a dominant presence in the local media, and to (in the words of one scholar, Jeffrey Bury of the University of California) become a sort of puppeteer in a regional political economy, manipulating the actions of a range of the other actors in the region.

While *power* is the principal dimension of inequality that the extractive enterprise introduces, it is not the only one – or perhaps put more accurately, the working out of this inequality of power leads to a series of additional, new inequalities in a territory. Let us consider several of these.

1. Through the control that the enterprise necessarily exercises over the natural resources it requires in order to operate – mostly land and water – the industry changes the distribution of access to and social control of these resources in ways that by definition push certain groups (those losing this access) down the distribution.

2. Through its effect in the labour market, extractive industry creates new employment inequalities. Only part of the local population is able to access the jobs provided by the industry – and this is even more so for the skilled jobs that typically go to already trained people who migrate in from other regions. Even when the enterprise makes a deliberate attempt to create unskilled jobs for local populations, access to these only reaches out a certain distance from the mine site. Furthermore, to the extent that the provision of this unskilled labour occurs through local labour mobilizing enterprises, these are often created by pre-existing local and community elites – thus accentuating within-community inequalities of wealth, and generating new authorities (the labour gang organizers) who can often compete for power with existing community authorities.

3. To the extent that the enterprise begins creating new markets for local service provision to the industry, once again only some enterprises are able to participate, whether for reasons of competence, scale or proximity. This creates new inequalities in the service provision market. In the very localized service market, similar phenomena to those described for work gang operators can emerge.

4. Extractive industries often initiate social and community development programs with a view to enhancing community relations and company reputation. The distribution of these programmes – both between and within communities – is also unequal. To the extent that such programmes are seen as compensation for other costs suffered by these populations as a result of the extractive activity, then this inequality may be both deliberate and justified. Nonetheless, for those who do not benefit from these programmes, they constitute a new form of inequality of opportunity.

5. Finally, extractive industry is by definition a point source activity. Furthermore it is one that generates significant environmental externalities. These are both real (landscape modification, water contamination, water consumption, noise, traffic, night time illumination) and perceived (the perception of environmental risk even when the company insists that it has been able to control for and prevent actual contamination). Because of their point source, location-specific nature, these externalities are distributed unequally, with some communities far more affected than others.

Just as new axes of inequality emerge within territories, so also they do between territories. One significant sense in which this is so is that the geographic unevenness of geological formations has meant that certain areas become territories of extraction while others do not; and among these territories of extraction some become ones of hardrock mining, others of hydrocarbon extraction, some of open cast extraction others of underground mining, and so on (see geographies of concessions/contracts in Figures 1 and 2). While this is obvious – a simple statement of fact – it is critical to understanding differences among territorial dynamics. To the extent that territories with mine workers, or mining cooperatives have distinct social and political dynamics from others because of the existence of such organized groups, then this geological unevenness translates into territorial differences. In the case of Bolivia, becoming a mining territory has not translated into becoming a less poor or more equal territory (Hinojosa et al., 2009)[3].

Second, and related to the above, is that the uneven geography of extractive industry translates – but not isomorphically so – into an uneven geography of royalty distribution (Figure 3). Indeed, the distribution of royalties from extraction, and the degree to which this distribution should match the distribution of actual extractive activities, constitutes one of the most serious sources of conflict in Bolivia and has

[3] Mining departments such as Potosi and Oruro reveal a considerable contrast between the wealth they produce and the poverty they experience. At country level, poverty incidence in 2001 was estimated in 71 per cent (61 per cent in urban areas and 88 per cent in rural areas) and national income inequality has been estimated in 0.46 for 1999. More critically, the difference between both areas with regard to extreme poverty is 40 to 74 per cent (UDAPE & INE, 2006). Potosi is the department with the highest rates of poverty and Oruro is second in extreme poverty levels. Income-wage difference in the mining sector between the urban and rural areas is almost 2:1 (INE, 2005).

been so severe as to have called into question the integrity of the country. We pursue this point further in a later section.

Finally are the inequalities that emerge between local and distant territories – i.e. between those at the point of extraction and those in which the accumulation based on that extraction actually occurs. These distant territories are both national and international. Thus within Bolivia, much of the extraction of gas in Tarija is governed from company offices in Santa Cruz – and Santa Cruz therefore becomes the point at which high salaried positions are concentrated, where strategic decisions are made and where many of the subcontracting arrangements are worked out with suppliers of services or inputs (many of whom are also based in Santa Cruz). In terms of accumulation and local of decision making power related to gas, Santa Cruz and Tarija thus stand in an unequal relationship. This same inequality – of power and accumulation – plays out in the relationship between Tarija (or Oruro) and those international locations at which the companies operating Tarija's gasfields (or Oruro's mines) are headquartered. These companies include Petrobras (Brazil), British Gas (UK), Repsol (Spain), PDVSA (Venezuela) and, in the case of Oruro, Newmont (USA).

Governing territorial inequalities

Of course, many of these geographical and social inequalities are inherent to any process of expansion of the extractive economy and so at one level should not be surprising. Furthermore, what may matter more than any final effect they have on the overall distribution of income, is the extent to which they give rise to perceptions of new inequalities of opportunity within and between territories. In this regard it can be useful to distinguish between inequality and inequity, with inequality referring to patterns in the distribution of outcomes (income, consumption, etc.) and inequity referring to patterns in the distribution of access to opportunities and to the ability to exercise influence over socio-economic and political processes (World Bank, 2008). The distinction is also helpful because the very term equity elicits notions of fairness, and therefore might be closer to capturing factors that trigger socio-political activity in the presence of inequality.

To the extent that inequality in outcomes are inherent, and that real and perceived inequities matter as much as *real* inequalities, it may be that the most critical question regards how these inequities are governed, and the effects that these governance arrangements have on territorial dynamics. Such an entry point would also be congruent with the emphasis given to institutional questions in debates on extractive industries and development (Weber-Fahr, 2002; Stiglitz, 2007; Karl, 2007; Ross, 2008). Indeed, debates on the so-called "resource curse" have converged on the centrality of governance in determining whether mineral endowments will have positive or negative effects on socio-economic development. While this literature notes the importance of a wide range of institutions, among the most frequently emphasized are those that ensure: transparent management of the rents generated by extractive industry; transparent and rational forms of land use planning and environmental management; and participatory citizen monitoring of both resource rent use and of specific company operations (including their environmental effects). These are all, in effect, institutions for coping with and offsetting the inequities and inequalities that otherwise will occur as a result of extraction, namely: that companies and parts of the central state, by dint of their power, have privileged access to and control over information related to extraction and the extractive economy; that populations near the point of extraction are subject to greater environmental and social impact but do not receive recompense for this; that the extractive economy is allowed to grow as powerful interest groups desire rather than in line with environmental vulnerabilities across a national territory etc.

Where the resource curse literature is less helpful is in exploring how such institutions for addressing inequities related to extraction might emerge. In a more general enquiry into "institutional transitions to equity", however, we have identified (Bebbington et al 2008a) four principal pathways through which institutions that govern and ultimately enhance equity (and reduce poverty) might emerge. To some extent these pathways refer to processes operating at different scales.

1. One pathway hinges around reflexivity and everyday forms of resistance. The argument here draws on both Scott (1985) and Moncrieffe (2008) and suggests that, when there is enhanced "consciousness raising" and "reflexivity" among subaltern groups around the conditions that perpetuate their position of disadvantage, this can feed into acts of resistance that ultimately have the effect of inducing institutional changes that favour (even if only partially) these groups. A Latin American example of this phenomenon would be the popular education and cultural revalorization work conducted among both campesino groups and indigenous peoples since the 1960s – interventions which, in many cases, translated into the formation of new political subjectivities, social organizations and demands for institutional change in the governance of land distribution, property rights and education among others.

2. A second pathway picks up where the first leaves off. This is the pathway of social mobilization and protest. Protest does not always induce equity enhancing institutional change – indeed it can also induce authoritarian and repressive responses. However, both the historical record (see, for instance, the various works of Tilly and Tarrow) and more recent experience in Latin America appears to suggest that many or most institutional changes that ultimately reduce inequities of various types have been in response to organized social protest. In the mining sector this appears to be clearly the case – increased environmental regulation, greater spatial redistribution of rent, and increased control of individual extractive enterprises has tended to come in the wake of conflict (Bebbington, 2007; de Echave et al., 2009).

3. A third pathway is more technocratic in nature and involves the work of policy networks and groups of policy reformers who in many cases play critical roles in the emergence and design of new institutions that manage and reduce inequity (cf. Hochstetler and Keck, 2006; Fox and Brown, 1998). Again, such institutions can be of various types – from arrangements to allow participatory monitoring of the environmental effects of extraction through to fiscal arrangements for redistributing rents. Often such reformers are able to play these roles because of the political space that opens up as a result of local resistance and organized social protest, but their contribution is often critical, particularly in the design of new institutions that are viable in the context of existing administrative arrangements.

4. The fourth pathway hinges around wider political economy dimensions of growth. In this pathway, growth patterns and "modernization" processes lead to an emerging

middle class whose very existence ultimately reduces inequality but who, more importantly, tend to demand social arrangements that target discrimination and certain structured inequities in society. Boix (2008) demonstrates how such constituencies for equity enhancing institutional change emerged in Spain toward the end of and after the Franco period.

If the presence of inequities and inequalities limits the potential for rural territorial development, and if there are *prima facie* reasons to expect inequities and inequalities to grow in the presence of extractive industry, then the possibility that one or more of these pathways to greater institutional equity might emerge becomes especially important – for both analytical and normative reasons. With this thought in mind, we now move to the cases of Tarija and Oruro. In each case we explore types of inequality and inequity that have been associated with the expansion of extractive industry, the effects that they have had on territorial dynamics and the extent to which (and pathways through which) institutional innovations for addressing this inequity have emerged.[4] To focus the discussion, in Tarija we pay particular attention to the ways in which gas expansion influences the relationship between indigenous peoples and territories, while in Oruro we focus on the effects that transnational ownership has had on the nature of protests surrounding relationships among mining, equity and territory.

Hydrocarbons and inequality in (and in relation to) Tarija

The emergence of a gas fuelled economy: national tensions and inequalities

Though natural gas is considered a new commodity in Bolivia, the hydrocarbons industry dates back to the 1920s when Standard Oil of New Jersey began drilling for oil in Bermejo, along the border with Argentina. In the years following the Chaco War (1932-1935), after allegations that Standard Oil was illegally shipping oil to Argentina, the government moved to take control of the oil fields and passed the operations onto the newly created national hydrocarbons company: Yacimientos Petroleros Fiscales de Bolivia (YPFB). In the sixty years since the creation of YPFB, real or perceived inequities linked to the hydrocarbons sector have driven several rounds of social protest, and the government has either privatised or nationalised the sector on four occasions. Each of the nationalisations has invoked the same rationale:

[4] One final comment on the issue of governing inequality in territories affected by extractive industry needs to be made. Should equity enhancing institutions emerge, one important factor in their effectiveness will hinge around the information that is available to actors participating in these institutions. In order to govern inequality these actors need to know that is happening to inequality (and poverty). Yet the availability of this information is not guaranteed, and at this point we move to the Bolivian case. In an earlier proposal this paper was supposed to lead with a quantitative analysis of territorial dynamics for all Bolivia's municipalities, tracing changes in poverty, growth and inequality over a multi-year period between the 1990s and 2000s (Hinojosa et al., 2009). In the event, it transpired that the Bolivian government does not possess the data bases to be able to do this analysis with a sufficient rigour to be confident of the results. On the one hand we found that the data was located in a range of unconnected data bases, and on the other we found, following three months of reconstruction and validation of data bases, that data from the two periods could not be compared with any statistical validity. Thus, even if the government of Bolivia were to want to govern inequality, its ability to generate the data required in order to know where inequality was increasing or declining, and then relate this to extractive industry dynamics, would be quite compromised.

that the country was not receiving a fair share of the profits deriving from the extraction of the nation's natural resources.

As its title, "Héroes del Chaco," makes clear, the Supreme Decree 29701 ushering in the most recent such nationalization in 2006 invoked this same history – and, as in earlier periods, grew out of different senses of inequity surrounding the benefits from hydrocarbon extraction, and out of a period of expansion in international investment in the sector. Since the mid 1990s, Bolivia has steadily shifted toward an economy powered by and increasingly dependent upon receipts from the extraction and export of its natural gas reserves. The interest in discovering and exploiting these reserves is linked to larger trends in the Andes and in South America that include among other things the extraction and export of primary materials, especially minerals, oil and natural gas, and the development of a network of regional infrastructure works that can facilitate the flow of these commodities to markets located both within the region as well as overseas. Bolivia was encouraged and advised by multi-lateral funding agencies to open up the sector to private investment in order to better exploit and profit from its natural gas reserves. In this way it was argued, the country would be able to take advantage of high prices and strong demand -in addition to its advantageous geographical location- to provide nearby urban centres (Sao Paulo, Buenos Aires) hungry for clean fuels.

The combination of technological advances and the new wave of investment catalysed by these reforms since the mid-1990s certainly drove important new discoveries and renewed enthusiasm for the possibility of extraction led development. By the early 2000s production levels of gas and condensates were rising dramatically. However, with the gas bonanza came increased social discontent, particularly over the dominant role of transnational firms in the production chain and the paltry sums that Bolivia received for its gas. Government found itself hard pressed to deliver the benefits that could satisfy the rising expectations generated by the industry and the imaginary it created around the production and export of gas. Meanwhile, anti-globalization sentiments within social movements in Bolivia (as well as within certain transnational networks)[5] inspired criticism of transnational energy firm ownership and control of Bolivia's resources and pushed for an agenda to return the sector to state control. They drew upon the contentious proposal to export gas from Tarija through Chile to markets in Mexico and the United States to cultivate the image of Bolivians having died in the Chaco War to protect hydrocarbon resources, only to have this wealth fall into foreign hands. At the same time, there was growing disagreement between Bolivian officials and transnational energy firms engaged in negotiations over the distribution of profits related in new contracts and the classification of new and old gas fields. Indeed, according to one former government official, rather than the pressure of social protest it was the greed of some transnational firms that ultimately derailed the plans for gas exports. Whatever the case, the tensions surrounding inequities in benefit distribution and social control of the industry were part cause, and part product, of a broad social movement that coalesced around the struggle to reclaim sovereignty over the nation's national resources, especially hydrocarbon resources, from transnational firms. After a period of violent confrontation, leading to the resignation of two Presidents and contributing to the election of MAS, Evo

[5] Though this was very much a domestic process and a domestic political discontent.

Morales's government retook control of the direction of the sector and began to reconfigure the distribution of profits.

Gas, inequity and protest in the Chaco

Though these mobilizations were nationalistic in motivation, regional attitudes to the sector likewise reflect some ambivalence. As with the case of mineral development in Oruro discussed later, the longstanding presence of hydrocarbon development in Tarija is not perceived as having contributed to the creation of a more dynamic and equitable regional economy. This is true both at a departmental level, and at that of the Chaco, the area where most of the extraction has been taking place. Tarija has received royalties from hydrocarbons production dating back to the 1930s, and much of this was used to used to finance a series of road building works (Luis Lema, personal communication, 2008) nonetheless few or no observers would suggest that this has been sufficient to overcome the Department's isolation. The critical question today is whether the effects of the most recent round of gas expansion will be substantially different.

Today about 70 percent of Bolivia's annual production of natural gas originates in the Department of Tarija with the bulk of that production located in three eastern provinces (Entre Rios, O'Connor and Gran Chaco) and primarily on ancestral lands claimed by lowland indigenous groups. This expansion of gas in Tarija has reverberated throughout the national economy. The contribution of the oil and gas industry to Bolivia's GDP rose from 4.46 percent in 1995 to an estimated 10 percent in 2005; the contribution to exports jumped from approximately 13 percent to nearly 50 percent in the same period. It has also dramatically shifted incentives and possibilities in the regional economy. The increase in the department's income - primarily through transfers to Tarija of revenue raised by the Direct Hydrocarbons Tax (IDH) – has been extraordinary. The income accruing to the prefecture (the departmental government) from royalties and taxes on hydrocarbons has quadrupled from Bs. 522.8 million in 2004 to Bs. 1982.2 million in 2008; over the same period the IDH transferred to Tarija's municipalities has increased from zero to Bs. 443.5 million. As a consequence, Tarija accounts for fully 35% of the entire budget for public investment across Bolivia's nine departments (though its capacity to spend this budget is severely reduced).[6] Indeed, it was because of such "desequilibrios" (to use Evo Morales' term) that the central government decided, in 2008, to redirect some of the transfers to Tarija to other regions through national social investment programs. Though the overall budget for Tarija continued to increase from 2007 to 2008 (Ministerio de Hacienda, 2008), it was this central decision that sparked such intense conflict between Tarija and the government.

Indeed, this financial windfall however has triggered a series of conflicts of which this is just one. Some of these occur within the Department, among provinces and between provinces and the capital; others occur between the Department and other departments (especially Chuquisaca) over the distribution of income from fields that political cross boundaries; and yet others occur between Tarija and central government. The most visible version of this third type of conflict has been that

[6] All the data in the second half of this paragraph come from a public presentation made by the Ministry of Hacienda in Tarija in May 2008 (Ministerio de Hacienda, 2008).

between the Prefecture and Comite Cívico on the one hand, and the central authorities on the other, though lowland indigenous groups in the Chaco have also had tense relations with central government and MAS over certain aspects of gas expansion.

The persistence of "desequilibrios" – imbalances and unequal treatment - drives much of the increased social protest, mobilization and conflict around hydrocarbon development within the Department of Tarija. Increasingly, struggles around who controls and who decides, how and where to drill and lay pipelines, and struggles over how the benefits derived from extraction should be shared, means that gas has become a commodity that divides rather than unites. The inability of leaders to forge a common vision threatens to undermine the social order and risks even greater fragmentation of society by giving rise to resource regionalisms. Finally, it has proven exceedingly difficult for the government –at all levels- to seize upon this window of opportunity and translate the gas bonanza into more inclusive and sustainable forms of economic development.

Inequity and indigeneity: gas and territory

Natural gas is an uneven and geologically bounded resource. While the financial benefits of extraction can be distributed to other locales, the social and environmental damage originating from extraction cannot be redistributed.[7] The fact that much of the extraction now taking place is located in poor, more remote areas often occupied by indigenous groups with little political power is a direct result of the loss of important oil and gas fields in the North. New technologies now permit companies to take a fresh look at old and abandoned fields as well as identify new areas of hydrocarbon potential. The Chaco, a traditional area of production has attracted some of the world's largest transnational energy firms (Petrobras, REPSOL, British Gas, British Petroleum, and Total ELF). These firms, and others, have agreements with the Bolivian government to jointly produce gas and condensates for export to Brazil and Argentina.

The Chaco is also the homelands of Guaraní, Weenhayek and Taipete indigenous peoples who throughout the 1990s have struggled to seek formal state recognition of their ancestral lands as TCOs (Territories of Collective Origin). While it is beyond the scope of this paper to address the impacts of hydrocarbon development on indigenous land claims and processes of territorial consolidation, suffice to say that there is strong evidence to suggest that where there are known reserves of hydrocarbons, indigenous efforts to lay claim to those lands systematically fail. This is the case for both the Guaranies and Weenhayek in the Chaco of Tarija. However it is important to note that the trajectory of Guaraní TCOs in the Chaco of Santa Cruz and its negotiations with the state have produced different results.[8] The perceived inequality of treatment or opportunity that is felt by TCO leaders in the Chaco is one of the reasons why they have recently stepped up efforts to pressure the government to move forward in recognising increased levels of indigenous autonomy.

Extraction and the TCO Weenhayek

[7] Though they do spill over into other linked spaces through, for instance, flows of water.
[8] The clearest case here is that of the TCO Alto Parapeti. Among the factors that led to successful recognition of territory in this instance, the strength, maturity and political connections of the NGOs working with the Guarani were especially important.

The case of the TCO Weenhayek, encompassing some 4,000 inhabitants in 22 settlements located along the left-hand margin of the Rio Pilcomayo, illustrates how the unfolding of extractive industry has had a profound influence not only on the physical landscape but also on social organisation and social relationships that sustain Weenhayek livelihoods. Exploration for gas, in an area that now forms part of the TCO, dates back to the decade of the 1980s when Tesoro Bolivian, a US-Bolivian firm, carried out seismic testing in and around a number of communities. According to one community leader present at the time, the testing involved opening up trenches that "extended under our feet and using machines that caused vibrations and noise." These trenches are visible on satellite images. The same leader noted that there was no process of gaining community approval much less compensation for damages: company representatives did not ask for permission, they just set up videos for the children and passed out sweets. Tesoro went on to drill a number of wells but the lack of capital and suppressed world prices for oil and gas put further exploration on hold.

In the late 1990s, the multinational energy firm British Gas (BG Bolivia) acquired Tesoro Bolivian and came to own the concessions that overlap with the TCO Weenhayek[9]. BG Bolivia sought to further explore and develop wells as well as build a network of infrastructure in order to process and transport gas and condensates. In addition, two hydrocarbon transport firms, Transierra and Transredes, were also in negotiations with the Weenhayek regarding rights of way to lay pipelines across parts of their territory in order to transport gas to markets in Brazil and Argentina. In contrast to the exploratory activity of the 1980s the operating environment had changed in important ways. Firstly, the Weenhayek were organized, albeit with much difficulty and many limitations, and had elected community representatives and a directorate - ORCAWETA (Organización de la Capitanía Weenhayek) - to represent and defend their interests. Thus negotiations between transnational energy firms and the Weenhayek were to be conducted –at least in theory- via ORCAWETA and its higher level representative organization, CIDOB. Secondly, the Weenhayek had a pending claim with the government to recognize an additional area of land that they deemed to also comprise part of their TCO, a process that had built and consolidated a degree of political capacity.

Operating in a context of increasing resistance, energy firms sought to smooth the negotiation of their entrance and secure Weenhayek approval by offering payments to ORCAWETA to support development projects. BG Bolivia agreed to fund a development plan (PDI). The plan sought to provide support to those Weenhayek settlements most affected by the firm's activity. In this case, BG Bolivia determined which communities were most affected, what activities would be prioritized and funded, and then retained control over the administration of the funds. Portrayed as part of the company's commitment to corporate social responsibility (CSR), BG Bolivia did not accept that the plan was a form of compensation for damages caused by their operations rather it was presented as an expression of the company's desire to help foster the development and betterment of the Weenhayek people. Still, in the minds of ORCAWETA leaders and community leaders, these payments are

[9] TCO Weenhayek was recognized by the Bolivian government on 19 May 1993 and encompasses a total of 195,659 hectares.

considered a form of compensation. As one leader suggested, "they are taking something from our land so it must be replaced."

The development plan, which has been amended and expanded on as BG Bolivia continues to work the gas field, has come to be the instrument that dominates, shapes and defines the Weenhayek relationship with the company, and the company's relationship with the Weenhayek. As one observer noted, "you can be sure that every time the company wants to expand its operations, or when a community needs more resources, leaders will organise some sort of mobilization" in order to renegotiate the PDI. In short, the PDI has become the medium for the transfer of resources to Weenhayek leaders who in order to maintain their standing and power within their communities must be seen as successfully "collecting" resources to redistribute among its members. However there is little evidence that the PDI has a pro-poor or developmental impact at the community level, much less at the level of TCO, given its limited scope, its focus on delivering in-kind donations, and a tendency toward funding an ad hoc list of activities favoring those communities most impacted by its operations. While in Weenhayek cosmology and culture the maintenance of harmony and equilibrium (equity and equality) within and among communities is critical to peaceful co-existence, the PDI is premised on the notion that benefits will be unequally distributed, and is implemented through a relationship of inequity in which the power to decide resides with BG Bolivia. One effect has been that persistent distributional imbalances within communities and among communities gives rise to a crisis in relationships, risks outbreaks of violence and a breakdown of the social order.[10]

More recently, the perception of imbalance and unfair treatment linked to BG Bolivia's proposed expansion within the TCO has led to a new round of internal conflicts resulting in the weakening of ORCAWETA. Confrontations between leaders who seek to gain control of the organisation and access to rents have debilitated the organisation at the very moment when internal cohesion is needed to analyze and debate the proposed expansion. Rival leaders have emerged to accuse ORCAWETA's leadership of negotiating behind the backs of community members and enriching themselves in the process. The lack of transparency and the secretive nature of company-ORCAWETA negotiations feeds this distrust. Typically negotiations around the PDI involve only a company representative and the head indigenous leader (and at most a handful of leaders). The results of these negotiations tend not be socialized or discussed with the communities. The secretive nature of negotiations and resulting agreements stems from the company's desire to keep the information from becoming public - and most likely from communities and groups comparing results. Indeed, neither the government nor companies use a recognized or standardized formula to calculate the value of a well or one kilometre of pipeline which results in wide variations in what communities are able to negotiate. Naturally, the weaker organisations, like ORCAWETA, are only too aware of their disadvantageous position and the sense of powerlessness and injustice is deepened.

Summary

[10] There is some resonance here with Foster's old notion of "the image of the limited good" (Foster, 1965) – such an image occupies an important place in sustaining a certain cohesion in Weenhayek communities. The structurally uneven distribution of benefits from the PDI contravenes this image.

The forms taken by hydrocarbon expansion in Tarija derive from structured inequities in relationships of power. The history of these inequities dates back to Standard Oil and runs through to BG Bolivia. These inequities reside in the relationships between hydrocarbon companies and the central government, in the relationships between companies and territorially based populations and in the relationships between central government and territorially based populations. Central government has had the power to grant concessions (and now contracts) without any free, prior and informed consent on the part of territorially based populations (above all indigenous populations); and the power of lead companies (who have been at times transnational, at times YPFB) has given them the direct access to central government that has allowed them to progress more or less as planned. Regardless of whether this extraction has generated resources for local investment, it has been grounded in and made possible by structured inequities; furthermore once extraction has installed itself in Tarija, these structured inequities have installed themselves as the central political fact in the territorial landscape. Whether the image is of Tesoro Bolivian doling out presents, or of BG Bolivia determining the design and governance of an indigenous development plan, the message regarding the relationships between power and the governance of territory is much the same.

The costs and revenue streams generated by hydrocarbon extraction in Tarija have created new inequalities. These inequalities are fundamentally geographical – between departments, between provinces within Tarija, or between parts of the Weenhayek population depending on their geographical location relative to the location of hydrocarbon operations. At each scale these inequalities have been accompanied by forms of social conflict that have – to date – been destructive rather than constructive,[11] weakening the capacity for collective action within indigenous territories, among provinces within Tarija, and between Tarija and the central state. The weakening of this capacity for collection both within society as well as between society and state has meant that – to date at least – two of the four "institutional pathways to equity" noted earlier in the paper have been short-circuited. Meanwhile there is also to date limited evidence of an equity-demanding middle class emerging on the basis of hydrocarbon expansion. Thus, while gas expansion has delivered territorially based growth, it has introduced new inequalities, and has weakened the institutional foundations necessary to translate this growth into territorially based development.

Mining and inequality in Oruro

Mineral extraction and regional stagnation

Mining in the Bolivian *altiplano* is scarcely a recent phenomenon. Since colonial times, Oruro, Potosí and parts of La Paz have been generally known as 'mining regions'. Indeed, this heritage of mining is constitutive of both regional and class identities (see Nash, 1993). However, while mining has produced identities it has not been engine of territorially-based growth. Historical growth rates in Oruro are well below other regions in the country (1.5 per cent over the 1992-2005 period) and

[11] Elsewhere we have insisted that conflict may also be the pathway towards the construction of "better" institutions for the governance of extractive industry (Bebbington et al., 2008; Bebbington and Burneo, 2008). This is not, however, always the case.

poverty is widespread (61 per cent on average).[12] Formal employment is almost inexistent (with government and NGOs being the main employers), as is evidence of economic diversification: the bulk of Oruro's labour force continues to be involved in non-tradable sectors (agriculture, petty commerce and small scale service provision) and there are very few medium or small-scale firms of any nature to be found.

While we cannot draw easy causal relations between these indicators and the mineral economy in Oruro, there can be no doubt that mining and poor economic performance have been long-term bedfellows in the *altiplano*. In this sense, Oruro appears to provide a case example of a regional resource curse: mining accompanied by stagnation.

As in the case of hydrocarbons, frustrations around benefit distribution (in particular between capital, labour and territory) have spawned patterns of social organization and mobilization – albeit of workers rather than residents. Here is not the place to explore the nature of the unionization within Bolivia's mines, but it is important to note that – as with hydrocarbons – this mobilization translated historically into nationalization of the mines (in the form of the state company COMIBOL). Likewise, as in the case of YPFB, the current government is attempting to revivify COMIBOL. This decision, however, derives from national political calculations rather than any reflection over the relationship between forms of mine ownership and territorial development. Indeed, during times the more dynamic periods of state ownership (1952 to 1985) there was no register of whatsoever nature to assess what COMIBOL (the state corporation) was contributing to the fiscal coffer, at national or regional scales[13].

Foreign Direct Investment, Territory and Environmental Inequalities?

In a stagnant and undiversified economy such as Oruro's, the establishment of any large mining company – such as Newmont's subsidiary Inti Raymi or Glencore's Sinchi Wayra – immediately introduces a series of inequalities and dilemmas for territorially based development. On the one hand, these new actors arrived possessing sources and types of economic and political power that other actors in the region did not have. On the other hand, the labour and service demands of these actors were of a type that the regional economy could not easily supply (for reasons of quality, lumpiness, volume, technical complexity, etc.). Meanwhile, their operations automatically changed existing relationships of access to and control over natural resources, because the mines needed land, space and water. This presented the mining companies with the challenge of building links to the regional economy and society that, in a very basic and instrumentalist sense, might establish the relationships that would allow them to operate, and at the same time serve as vehicles through which the companies could foster territorially based improvements that they could point to in order to claim legitimacy on the basis of their development impact and social responsibility.

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[12] Growth is measured by consumption per capita and poverty refers to the percentage of population under the poverty line (both are based on our own estimations: see Hinojosa et al., 2009).
[13] Personal communication with an official from the *Superintendencia Tributaria* (the national tax office).

When the gold-extracting company Inti Raymi initiated its activity in the Kori Kollo mine in 1984, it affected directly two peasant cantons (Chuquiña and La Joya) and located its installations in the provinces of Saucari and Cercado. The mine's direct area of influence is assumed to be two municipalities (Caracollo and Toledo). In that area, Inti Raymi purchased land and resettled one community (Chuquiña village) to a nearby location. In order to compensate the *comuneros* (peasants) – and in the absence of any fiscal system through which the state could redistribute resources to affected communities – the company established the Inti Raymi Foundation which, among other goals, had the task of improving the natural resources available to the affected communities for agricultural activities.

The Foundation had an additional purpose which was to address the severe constraints on the local economy's capacity to respond to the mine's demand for services. Improving this capacity was a *sine qua non* if Inti Raymi was to generate employment. The Foundation therefore implemented projects that sought to improve peasants' skills in areas in which the mine demanded basic services (for instance, the provision of food and labor-clothes for its workers). In addition the Foundation built social infrastructure (school, housing, electricity and the like), trained teachers and local producers, gave microcredit, etc. The Inti Raymi Foundation became 'the local NGO,' but one with the specific purpose of fostering social and (it hoped) economic linkages between mine and territory. While this did help ease relationships between the company and the affected communities (no significant conflict was registered in about 10 years)[14], there was no significant evidence that it helped offset poverty in the region.

This combination of social acceptance and limited economic dynamism began to change, however, when in 2004 the mine announced closure plans. In response, several communities, and particularly those of surrounding areas, initiated a movement directed at obtaining compensation for what they identified as the environmental damages produced by Inti Raymi. In that movement, local NGOs and activists got also involved and the movement grew to the point that the central government allowed, for the first time in Bolivian history, the implementation of an environmental audit of Inti Raymi's activities and effects. Among peasants' claims for compensation, one can find the argument that Inti Raymi's open-pit gold extraction polluted and drained agricultural waters, displaced people – albeit while at the time buying their land – and reduced the opportunities for developing agricultural livelihood strategies in the region. The sense is that once the population realised that the mine had a finite life span, a series of other inequities and inequalities (above all those related to the environment) began to assume greater importance.

One of the demands of this growing movement was for an independent audit to identify the environmental effects of the mine and thus establish a basis for compensation payments. This has been a tortuous path. Because of discrepancies among affected individuals and communities, as well as between these and the company, as to who the auditor should be – coupled with the passivity of central government and failure of regional and local government to intervene in the matter – the audit did not start until 2008. By the same token there was a long process of negotiation over what the terms of reference of the audit should be and, in particular,

[14] Though there were on-going tensions and low level conflicts (Damonte, 2007).

over its geographical scope. In the final instance, the terms of reference require the audit to cover a wider area than that which Inti Raymi had initially wanted evaluating, implicitly admitting that mining activity affects much more than the immediate area of the mine-site and its ambit of direct influence. In this sense, the audit's terms of reference acknowledge that the conflicts around Inti Raymi were not only about damage to natural resources in the particular area of the mine, but were also about the ways in which mining can affect access to and control of resources over a much wider area – not only through the mine's competition with alternative activities (for instance, animal husbandry, as claimed by directly affected communities such as Chuquiña) for control over resources, but also through its effects on the possibility of developing other resource-based activities in the rural area of Oruro (for instance fishing, as claimed by the indirectly affected communities of Lago Poopo).

There is also a growing argument in the region over the environmental effects of small and artisanal mining. There are increasing demands for increased environmental awareness among the approximately 60 thousand small scale miners ('*cooperativistas*') in the region; along with demands that they compensate for the environmental damage that they have produced. However, while there are evident conflicts of interest between farming and small scale mining, many small miners are themselves also farmers, or have family members who farm – as a consequence the debate over the effects of small scale mining on environment, poverty and distribution in the region is much more germinal and complex. More generally small scale mining is a local livelihood strategy and so is defended as much as it is questioned. The issues at stake differ thus considerably from those raised by debates on the territorial development effects of large companies.

Territory, mining and inequalities of opportunity

Most of the arguments between individuals, communities and Inti Raymi hinge around the claim that the benefits that Inti Raymi has produced through employment creation, compensation for land purchases, and other collateral services delivered by the Foundation, have been unequally distributed, reaching only some persons and in a quite uneven way. This unevenness is less a reflection of the relative intensity of actual environmental damage caused by the mine (that is it does not reflect "fair" compensation), and much more a reflection of: communities' – and their leaders' – abilities to negotiate with the company; the geographical location of communities;[15] and the preferences of the company or the foundation staff for certain communities and families.

At a more regional level, the perception that Inti Raymi – as well as other companies – have produced (or not) significant resources for growth and development is also contested. Although mining is the most important activity in Oruro in terms of regional GDP, large scale mining produces very few direct jobs. In a region in which formal employment is very scarce, to get a job in a big company is an aspiration of most people, and the arrival of large scale mining fuels this aspiration. Yet in practice, of course, very few are able to satisfy this goal – a situation which generates much frustration. The same situation applies to local companies, most of which also fail to

[15] It is argued, for instance, that those communities which were more favoured by the company in the years of exploitation are those closer to the mine site. Therefore, they should not get more compensation after the environmental audit.

secure contracts with the mine – again generating frustration. That said, the industry does absorb more of available labour force through indirect employment (for instance, housing and health and recreation services that workers demand).[16]

In concerns over inequalities in economic opportunities within the territory, the population's emphasis is very much on employment. By contrast there is limited interest in the extent to which mining might foster poverty reduction and greater equality through the taxes and royalties that it pays.[17] Perhaps more remarkably nor is this a theme of particular interest to local government officials. This may, though, be a reflection of fiscal institutions in the sector. In contrast to the hydrocarbons sector, it is very difficult to trace at a sub-national level the fiscal redistribution of revenue generated by mining companies. Instead, income derived from mining activities goes to the general treasury and it does not return to regions in a way that is understandable or transparent to the population. In this sense, the absence of an institution for enhancing equity translates into an absence of any significant territorially based demand for such an institution.

According to Inti Raymi's data, in 2005 the company paid $US 0.74 million in taxes to the central government and $US 1.9 million to local governments in royalties and mining rights, and other taxes.[18] This is a significant contribution. Under the provisions of HIPC, [19] the municipalities in the area of Inti Raymi's direct influence would have received US$ 1.67 millions between 2001 and 2004. Inti Raymi's contribution in one year would therefore have been equivalent to 113 percent of what the municipalities received in three years of HIPC aid. Nor does the calculation include amounts paid to the government as a result of Inti Raymi buying ore from cooperativistas.[20] The direct and indirect tax contributions of Inti Raymi to the fiscal income are, therefore, not insignificant. However, the final destination and use of this fiscal income cannot be traced as there is no real way of tracking what goes into government revenue and how much of it returns to the communities. As a result it is impossible to assess the effects (if any) of these tax contributions to territorially based development.

Of course, a precondition for any improvement in transparency regarding revenue generation, redistribution and expenditure (locally and nationally) is the existence of adequate statistical systems at both regional and national levels, as well as of mechanisms for making this information publicly accessible and intelligible. Yet initiatives such as the Extractive Industries Transparency Initiative (EITI) have been adopted by very few companies in the country (though Inti Raymi *has* adhered to

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[16] At the time of its highest levels of activity, Inti Raymi claimed that its multiplier effect in job creation was around 3.5.
[17] Note the contrast here with the Peruvian case where the debate on – and expectations of – mining's contributions to local development hinge primarily around its tax contributions and their geographical redistribution through the "mining canon" (Arrellano-Yunguas, 2008).
[18] Newmont (2005).
[19] INE (2005). HIPC resources are those which came from the international community to support highly indebted countries.

[20] For instance, in 2005 Inti Raymi bought raw mineral from the La Joya cooperative for an approximate amount of US$2,118.000 (tax included). The company had to train and to negotiate payment mechanisms in order to ensure the community complies with its tax obligation.

EIRI). Likewise at a national level the initiative has progressed little, with apparently only limited interest from either state or civil society. Without such an initiative – and without adequate statistical data – it becomes almost impossible to assess the net benefits and costs that mining implies for local and regional development, and the broader effects it has on fiscal inequalities within and among territories.

Summary

In some sense, mining and society in Oruro achieved a sort of symbiotic relationship for most of the modern history of extraction in the department. The symbiosis was not necessarily a healthy one – it has been a co-existence in which mining has continued, parts of the local economy have been directly or indirectly related to it, but the regional economy has neither grown significantly nor shown significant reductions of poverty. Indeed, the region continues to be terribly poor by national standards. June Nash put the perversity of the symbiosis rather more starkly in the title of her classic study of mining in Oruro: *We Eat the Mines and the Mines Eat Us* (Nash, 1979/1993).

Arguably one reason for this has been that no institutions have emerged that allow this relationship to be governed in a way that might increase mining's contributions to the reduction of poverty and inequality. The nationalization of the mining sector did not help as it did nothing to make the distribution of resources generated by mining transparent and therefore debateable in terms of their local contributions to development. Access to this information (to the extent that it existed for anyone at all) was therefore deeply unequal. This information asymmetry continued with the decline of Comibol (and the arrival of both large international companies and the rise of the cooperative sector). Yet, as long as the mines continued to generate sufficient benefits, demands for this information, and demands for increased contributions to local development did not emerge. Dissatisfaction lingered – about inequalities in exposure to environmental impacts, in access to the resources of the Inti Raymi Foundation, in access to formal mine sector employment – but as long as the overall sense of general benefits was sustained, these dissatisfactions did not translate into conflict or any real demands for institutional changes.

In some sense it has only been since the announcement of mine closure, and the realisation that this general level of benefit will decline, that demands have intensified. These demands are for the rectification of certain negative impacts of the mine, and thus of an inequitable relationship in which the mine was able to adversely affect the environment without being subject to any significant sanction. Indeed, more generally while demands have been articulated mostly in an environmental idiom, the sense is that these are really calls for the rectification of a series of rather deeper inequities. However, these demands remain limited both in the types of response that they have elicited, and in the institutional changes that they have called for. Indeed, the only real institutional change that has occurred has been the appointment of an environmental auditor – but then this also appears to be all that they have asked for. The types of institutional change that would offer greater chance of a transition to equity – such as transparency in fiscal systems and revenue management – appear to be off the radar for most movements to date.

Conclusions

Beyond the effects of extractive industry on *inequality* – and there continue to be ample reasons for expecting that at least in the short and medium terms its expansion will continue to create a series of new inequalities – the more fundamental issues raised by the sector are ones of *equity*. This is so both in a general sense and at a territorial scale.

First, as each case suggests, while extraction might generate its own particular benefits and costs, there continues to be very significant debate on what constitutes a *fair* distribution of these benefits and costs. This fairness is partly discussed in terms of spatial justice. Here one issue is how benefits should be distributed in relation to the spatially uneven exposure of people and communities to the negative effects caused by extraction. What constitutes *fair* recompense to those regions most affected and from which resources are directly extraction? Another issue regards what constitutes a fair distribution of benefits among regions where extraction occurs and those where it does not occur – *given that* the subsoil is deemed to belong to the nation as a whole. It was this debate that so rocked Bolivia during 2008. Interestingly, over the last year and apparently in response to these issues, the Evo Morales government has encouraged the expansion of extractive industries in areas with no great tradition of hydrocarbon or mineral extraction – the rationale being that this will allow these regions to also have access to taxes and royalties generated by extraction.

Second, and related to this point, is the issue of compensation. Here the debate hinges around what constitutes fair recompense for losses incurred by individuals and communities as a direct consequence of extractive activity. What would constitute a fair price for land and water taken by the mine? What constitutes a fair distribution of work opportunities for communities located adjacent to the mine site? What is a fair "geography" and distribution of company CSR activities?

Third, perceptions of fairness and unfairness also change depending on three other factors. First is the overall baseline set of benefits felt locally – thus, in Oruro, as long as a broad part of local society feels it benefits indirectly from the mine, worries about unfairness in the distribution of the remainder of the profits and (environmental) costs generated by the mine may not become significant. However, once this base line is lost (once the basic arrangement in the moral economy of mining is undone, as happens when the mine announces that it is closing down) then people *do* begin to worry about other dimensions of fairness and unfairness. Second, what is deemed a "fair" local benefit changes depending on who owns and operates the mine – with a sense of what is fair becoming more demanding as mine ownership shifts from state to foreign private hands. Third, what is fair depends on experience and context – with demands varying depending on the nature of the local population.

Fourth, and to a far greater extent in the *Chaco* than in Oruro, is a conception of fairness in access to information and decision making – a sense that the ways in which decisions are made is not fair, and that Guarani and Weenhayek groups are treated by companies and the state in ways that are systematically unfair.

Conflicts around extraction in Bolivia do of course hinge partly around simple struggles over rents – with different groups striving to increase their share of profits generated by extraction. But many more conflicts hinge around arguments over equity – over fairness. These arguments can be hugely volatile. The conflicts during 2008 in Bolivia among regions and between them and central government of course had their fair share of political motivation and calculation. But they seemed also to have been driven by competing senses of what a fair distribution of resource rents should be. What was of most concern about those conflicts was that they threatened to destroy the public sphere in which debates over these competing conceptions of equity might occur. If such a public sphere is lost, and moderately reasoned debates can no longer occur, then the single most important institution for governing inequity would also be lost.

A further implication of the conflicts in 2008 is that mechanisms for governing both inequity and inequality – and for laying the basis for a transition towards greater equity – remain so weak. While mobilization in Bolivia has laid the base for various nationalizations of the extractive industry sector, these constitute a still quite poor form of institutional response to inequity. This is because, as we have noted, nationalization *per se* does not necessarily lead to institutional changes that will foster greater equity of access to information about rents, revenues and expenditure, nor greater equity in determining when extractive industry investment proceeds or not, nor greater equity in the distribution of environmental costs. Institutional transitions in these spheres have remained weak, above all in the mining sector. This is so both at a national level (witness the very limited progress on the EITI process) and at a territorial scale.

One explanation for this state of affairs is that movements have not demanded such institutional transitions. Instead they demand case by case compensation, jobs, indigenous development plans, CSR handouts and the like – in large measure they demand a share of the rent, but no more substantial changes in the sector. Such payouts might make marginal contributions to poverty reduction and growth but little to address the more deeply seated inequities that will continue to frustrate the possibilities of territorially based development processes that reduce poverty and inequality, while also enhancing growth and environmental quality. If societies get the governments they deserve, it may just be that in the face of extractive industry expansion, movements get the territorial development they demand.

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Figure 1: Mining claims in Bolivia, 2002
Source: Ministerio de Desarrollo Sostenible y Planificación, 2001, on basis of data from YPFB, SETMIN and IGM
Mining claims are shown in blue

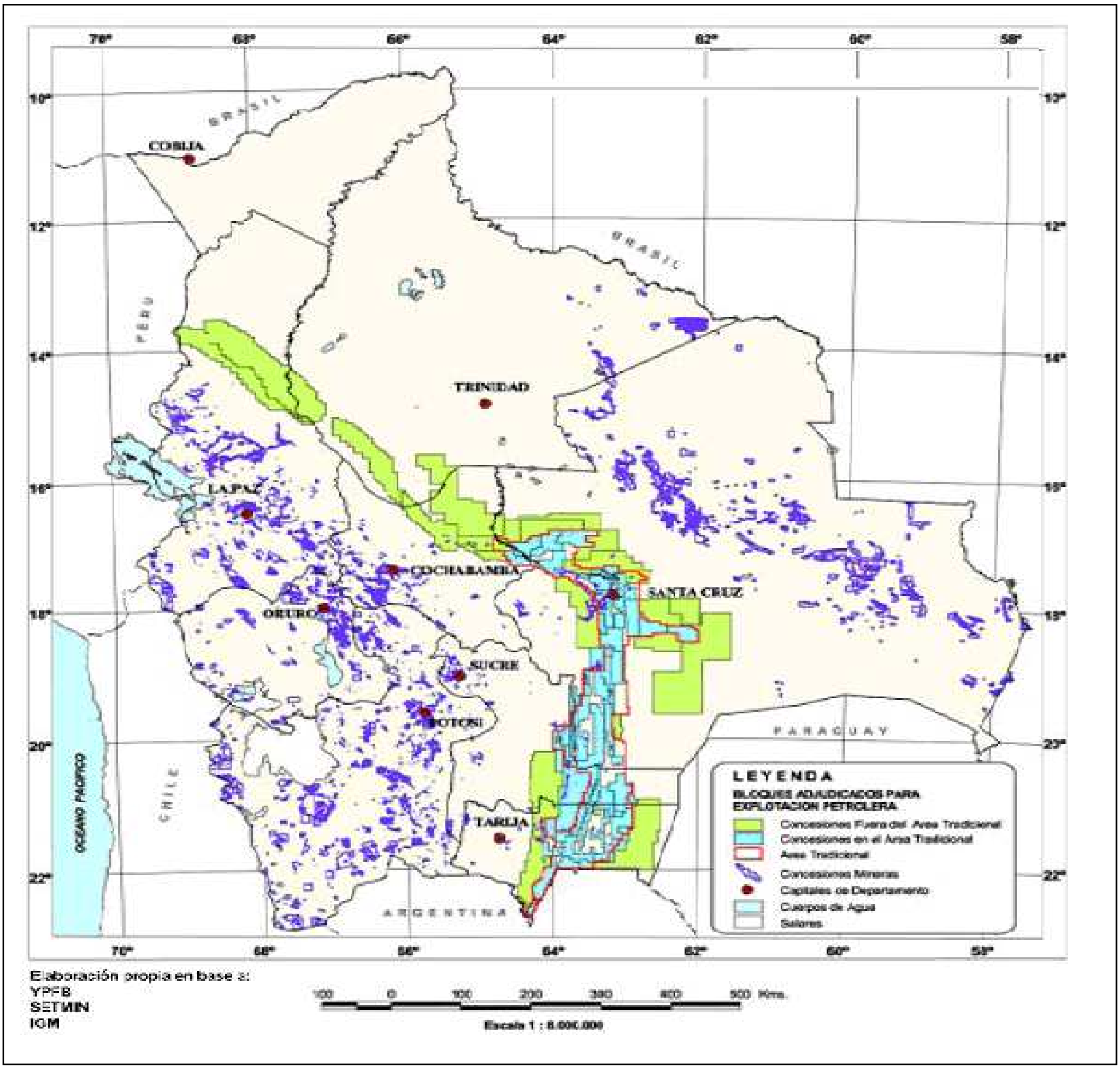

Figure 2: Hydrocarbon contracts (in dark colours), or areas open for contracting (light pink).
Source: YPFB, 2007

Cuadro N° 1: ÁREAS DE OPERACIÓN, ÁREAS RESERVADAS PARA YPFB Y ÁREAS LIBRES

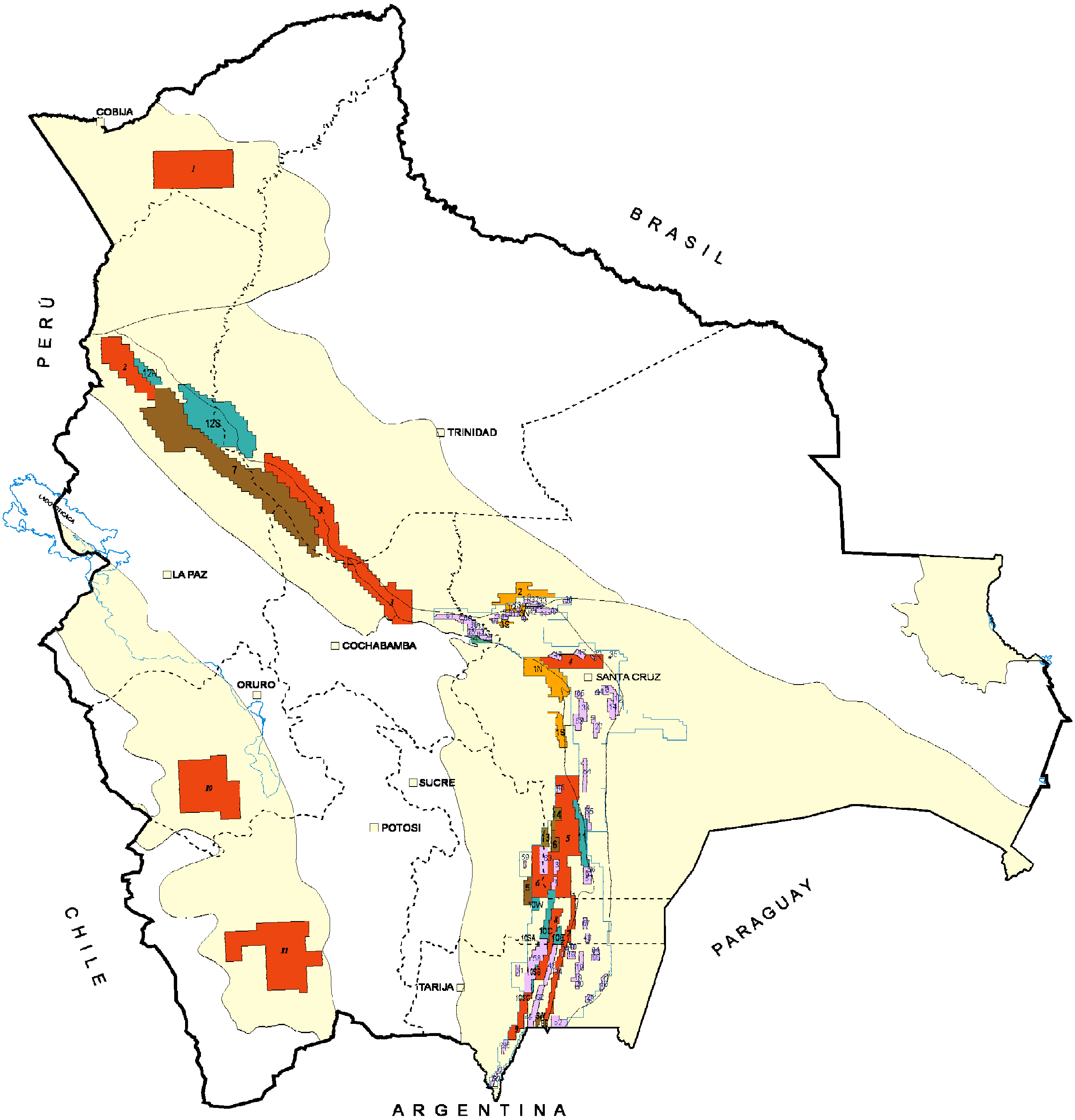

Figure 3: Uneven geographies of mineral wealth, poverty and royalties