Claremont Colleges Scholarship @ Claremont

Pitzer Senior Theses

Pitzer Student Scholarship

2013

'Clean Energy' At What Cost?

Rachel E. Conrad Pitzer College

Recommended Citation

Conrad, Rachel E., "'Clean Energy' At What Cost?" (2013). *Pitzer Senior Theses*. 43. http://scholarship.claremont.edu/pitzer_theses/43

This Open Access Senior Thesis is brought to you for free and open access by the Pitzer Student Scholarship at Scholarship @ Claremont. It has been accepted for inclusion in Pitzer Senior Theses by an authorized administrator of Scholarship @ Claremont. For more information, please contact scholarship@cuc.claremont.edu.

'Clean Energy' At What Cost?

Hydroelectric Energy and Extractivist Development in 21st Century Socialist Ecuador.

Rachel Elizabeth Conrad

A Thesis Submitted in Partial Fulfillment of a Degree of Bachelors of Arts in Environmental Analysis: Environmental Policy and a Degree of Bachelors of Arts in Latin American Society and Environment

Pitzer College

Readers: Brinda Sarathy Heather Williams

May, 2013

Table of Contents

| Abstr | act | | 5 |
|-------|---------------|---|-----|
| Ackn | owledg | ements | 6 |
| Intro | duction | | 7 |
| | I. II. | Methods Literature Review | 14 |
| - | | The Political Economy Behind the 'Neo-Extractivist' Model | |
| Ecuar | I. | Protests and the fall of strident neoliberalism | |
| | II. | The "refounding" "plurinational" constitution | |
| | III. | Failure to "refound" the country | |
| | IV. | Limited poverty reduction and development at the expense | |
| | | of people and nature | |
| | V. | Rapid economic growth dependent on extractivism | |
| | VI. | Hydroelectric's role in the model | |
| | VII. | The cozy relationship of hydroelectric and mining | |
| | VIII. | Environmental harm | |
| | IX. | Risky business: climate change and foreign investment | |
| | X. | Hydroelectric: a growing extractive industry | |
| | XI. | Extractivism becoming less populist | |
| | XII. | Conflicts and resistance over extractive projects | |
| | XIII. XIV. | Criminalization of dissidents, censorship, and violence Concrete alternatives | |
| | XIV. XV. | Conclusion | |
| - | | Vater is Life For Us: The San José del Tambo Hydroelectric | |
| | I. | The Hidrotambo Project | 65 |
| | II. | 0 | |
| | III. | F F F F F F F F F F F F F F F F F F F | |
| | IV. | Millionaire businesspeople. | |
| | V. | Violations of procedures and rights | |
| | VI. | Resistance period 1: 2003 to 2008 | |
| | VII. | A long-awaited victory? | |
| | VIII. | Back with no shame. | |
| | IX. X. | Illegal contract renewal and prior consultation Violations of the Constitution and international | 98 |
| | Λ. | | 100 |
| | XI. | human rights over nine years Police bullying, criminalization, and intimidation | |
| | XI. XII. | Media suppression and community division | |

| XI | II. The changing face of resistance | | |
|------------------------------|--|--|--|
| XI | V. Life and resistance in San Pablo de Amalí | | |
| Chapter 3 | 3: the 'Clean' Development Mechanism: Carbon Reductions or | | |
| Industria | lization and Repression?126 | | |
| I. | Business as usual in the global North and dirty | | |
| | projects in the global South131 | | |
| II. | Financial additionality131 | | |
| III | . Baselines to prove additionality | | |
| IV | Non-financial additionality134 | | |
| V. | Repression under the guise of sustainable development | | |
| VI | Prone to corruption in a market-based system | | |
| VI | I. Funds emitting industries in the global North and | | |
| | harms existing sustainable economic activity140 | | |
| VI | II. An irredeemable mechanism144 | | |
| IX | . Potential to remove CDM funding | | |
| | from the San José del Tambo project145 | | |
| Х. | Climate change solutions from marginalized | | |
| | communities and the global South146 | | |
| Conclusion: Pathways Forward | | | |
| Works Cited | | | |

Abstract

Ecuador was 'refounded' at the turn of the 21^{st} century, with the articulation of progressive and inclusive ideals in a new Constitution. Social movements and leftist intellectuals in Ecuador have expressed that president Rafael Correa has failed to uphold the 2008 Constitution's goals and values. President Correa and his Alianza PAIS government have utilized the rhetoric of the revolutionary ideals articulated in the Constitution, but in practice, they have continued to implement the status quo Western development model, and a large part of their development strategy involves 'neoextractive' activities. Hydroelectric energy production is contributing to the 'neoextractive' development model in Ecuador, and its implementation has often violated Constitutional rights. This thesis is an analysis of natural resource extraction in Ecuador and its social repercussions, with a focus on hydroelectric energy production. It is shown that the hydroelectric industry in Ecuador is not as "clean," sustainable, or non-extractive as it is purported to be, through a case study of the San José del Tambo hydroelectric project and the exploration of an international support for hydroelectric extractivism, the United Nations Clean Development Mechanism, and its misleading framing of extractive projects as "sustainable development." Social movements in Ecuador are acting to reverse the perversion of their originally revolutionary ideals, and to implement a postextractive model informed by those revolutionary ideals.

Acknowledgements

I must begin by thanking community members of San Pablo de Amalí and other communities in the Dulcepamba watershed for sharing their stories with me and for teaching me about perseverance. I hope that this thesis will provide some support for your struggles. I have learned so much this year from Sr. David Reyes, and I want to thank you, David, for hundreds of conversations, both in person and through email, that have allowed me to learn from your solidarity work on the defense of air, land, water, and Life. I want to thank professor Heather Williams profusely for inspiring me to delve into water politics, for helping me to conceptualize this thesis, and for your understanding when I experienced some setbacks this year. I also want to give deep thanks to professor Brinda Sarathy. Your courses and your passion have deepened my interests in water politics and environmental justice, and the guidance that you have provided for my thesis and for navigating senior year has been invaluable! To my amazing mother: your intelligence is inspiring, and I cannot wait to reciprocate the care and support that you gave me while I wrote this thesis. To my wonderful dad: thank you for sharing your extensive knowledge of water resource management with me! Your advice and your enthusiasm is incredible. To my sister Emily, thank you oh so much for encouraging me when it seemed like I would never finish this project, and for reminding me of how much we both love to learn. And last but not least, many thanks to my fabulous housemates for head massages, and for such wonderful encouragement throughout this process!

Introduction

"As Ecuadorians, we can feel proud to have the greenest Constitution in the history of humanity. We are the first to grant rights to Pachamama.¹ We also have environmental policies that are exemplary at the national level. But, while I am president, I will not allow, in the name of false environmental causes...I will not permit the sacrifice of the most important part of Pachamama: the human being...mining, together with our other non-renewable resources like gas and petroleum, can and should be used to rapidly overcome poverty...We will not be beggars sitting on sacks of gold!"

--President of Ecuador, Rafael Correa, 2012

Despite its small size, Ecuador is a highly diverse equatorial country, in its plants and wildlife, and in its peoples and their histories. Outside of the country's urban population centers, one can transition from the deep green tropical flora and vast rivers of the humid and flat Amazonian Basin to the subtropical foliage on the Andean slopes, or from the humid coastal plains to the cool spring-like climate of the inter-Andean central highlands, and then up to the cold *páramo* meadows of shrubs, herbs, and rosette plants above the timberline, surrounded by snow-capped volcanoes. I am fortunate to have spent seven months studying, interning, and traveling in diverse regions of Ecuador. Its rural lands have been the home of indigenous, *campesino*,² and *montubio*³ peoples for hundreds of years -- thousands in the case of indigenous peoples. Throughout those years, parts of their land have been despoiled, and vast portions have been taken from their rightful inhabitants.

To begin to address a long history of natural resource extraction and repression of indigenous and Afro-descendant peoples starting in the Spanish colonial era, Ecuadorians

¹ A Goddess revered by the indigenous people of the Andes; Mother World or Mother Earth; Nature

² Literally a person from the countryside (*campo*), usually indicating someone who works the land for a living. *Campesino* is sometimes translated to English as "peasant." *Definition from Indians and Leftists and the Making of Ecuador's Modern Indigenous Movement*, by Marc Becker.

³ Poor *mestizo* (mixed European and indigenous) peasants on the coast who tend to be mobile, migrating among export-oriented plantations during harvests and to urban areas in search of employment. *Montubios* are recognized as a nationality in Ecuador, with distinctive and unique cultural practices. Definition from Marc Becker (see above).

voted to recognize ethnic and cultural diversity in their country's 2008 Constitution, along with the Rights of Nature (*Pachamama*) and the Right to *Sumak Kawsay*, or the Good Way of Life, an Andean indigenous concept of living *well* rather than living *better*, of "living in harmony and balance; in harmony with the cycles of Mother Earth, of the cosmos, of life and of history, and in balance with all forms of existence."⁴ They also voted to include in their Constitution other progressive and pluralistic rights and protections that allow for environmental sustainability and the protection of previously marginalized peoples. During my travels, I began to wonder, "…to what extent has constitutional recognition and protection of marginalized peoples and their environments translated to concrete changes in land use and respect for the rightful inhabitants of historically plundered lands?" The answers provided by my experiences were troubling.

On three different occasions, I visited the Intag region in Ecuador's Imbabura province. I sat outside my host family's two-room home in the cloud forest, and looked out across a deep green Andean valley, brimming with primary forest interspersed with small *campesino* homes and an amazing diversity of crops growing alongside montane foliage on almost vertical hillsides. I learned from locals and from my professors about the high number of endemic species in the Intag region. I hiked by countless waterfalls, streams, and rivers on my way to and from my host family's home.

After a day-long hike, we arrived at the towering Hidden Waterfalls of Junín. What looked like light green pebbles that lined the bottom of a crystal clear pool at the foot of the waterfalls was actually copper. We passed an abandoned mining camp on our way downhill, which was barely recognizable as the forest had begun to close in on it.

⁴ Huanacuni Mamani, F. "Buen Vivir / Vivir Bien Filosofía, políticas, estrategias y experiencias regionales andinas," (Coordinadora Andina de Organizaciones Indígenas, Lima, Peru: 2010).



Figure 1: Copper at the Hidden Waterfalls of Junín, photo by Rachel Conrad

I learned how this beautiful green shimmer in the water concealed a complex and disturbing story. With my fellow ecology students, we met with a women's group who told us a long and saddening, yet inspiring story about copper mining that is threatening the water, biodiversity, and residents' livelihoods in Intag. Communities in the Intag Valley have resisted the incursion of transnational mining operations for 18 years. The incursion of a Japanese corporation, Bishimetals in the early 1990s prompted residents to educate themselves about the effects of open pit copper mining on water, human health, and biodiversity. Intag communities founded a grassroots organization to resist mining, and have successfully utilized protest, direct action, political advocacy and legal means to fight off Bishimetals and two other transnational mining companies. After years of death threats, aggravated assaults by paramilitaries on the company dime, and a slow poisoning of their water, community members burned a Canadian mining camp to the ground in desperation—the one I had passed on the waterfall hike. As a sustainable alternative to mining development, Intag's grassroots organization, DECOIN, has supported the creation of dozens of community-run production cooperatives, where coffee, aloe verabased soaps, woven *cabulla* bags, and much more, are made from local plants and sold throughout Ecuador.

At the time of my first visit, no mining company had gone beyond initial exploration, and they had all left the region. But when I returned to Junín in January of 2013, I heard somber news. President Correa was slated to win the upcoming elections, and he had announced his wholehearted support for a "new era of mining."⁵ A Chilean mining company, CODELCO, has set its sights on the beautiful valley of Intag, and the president is likely to ease their entrance into the region with military or police support. I walked through an almost silent town square where an elderly man explained that many of the region's youth had left to live in the city because they do not see promise in this threatened region.



Figure 2: "Welcome to Junin community: agriculture, cattle raising, tourism. Here we do not permit mining." Photo by Rachel Conrad

I was fortunate to also spend a couple of weeks in the Amazonian province of Orellana along the Napo and Tiputini Rivers, studying the ecology, history and politics of the region. Never have I felt so mercurial as I did in the rainforest. At one moment I felt joy as loud choruses of birds made the air above me vibrate with life as I hiked lands with the most biodiversity I will surely ever see. The next moment I experienced shock as my fellow students and I passed by dozens of natural gas flares (figure 3) along the Napo River, a byproduct of petroleum extraction. The shock deepened as I learned from local

⁵ "Ecuador apuesta su crecimiento a la minería a gran escala," (El País Internacional, 12 de enero, 2012), http://internacional.elpais.com/internacional/2012/01/12/actualidad/1326385590_917311.html

Haorani indigenous people of the poisoning of their waters and deforestation of their home by petroleum operations. Inspiration took over when I learned from an indigenous leader who is originally from the Amazonian province of Pastaza of successful organized resistance against foreign oil drilling companies in his home province. A chilling feeling came over me as I passed through a military checkpoint in order to access a section of the Amazon under concession by the Spanish multinational Repsol. Wonder completed the cycle as I jumped into the Napo River to swim with playful pink river dolphins and watched excitedly as two tapirs forded the Tiputini River.



Following an eye-opening lecture on oil drilling in the Amazon by the founder of an environmental justice-focused NGO in Quito called Acción Ecológica, I looked up their office address, and knocked on the door to see if they had any desire for an intern. I was directed to work with the director of their water and energy campaign, David Reyes. I spent an afternoon, and then a year, learning about the San José del Tambo hydroelectric project in Bolívar, and the immense injustices related to this project.

The San José del Tambo hydroelectric project has been described by David Reyes

as "the most violent project in Ecuador."⁶ A private multinational company, Hidrotambo S.A., has acquired a concession to much of the waters of the Dulcepamba River watershed in Bolívar province, where over 40,000 *campesinos* live. Hidrotambo plans to use this privatized water to move the turbines of a hydroelectric project located at the base of the watershed. In order to ensure maximum electricity production, they will not allow farmers, almost all of whom live at higher elevations than the dam site and draw water from tributaries that feed the Dulcepamba River, to divert water for daily use, for their livestock, or for irrigation—all essential to their survival as farmers. In order to forward their project in the face of peaceful protest from local farmers, the company has used the Armed Forces of Ecuador and the National Police to repress the locals—with tear gas, rubber bullets, surprise invasions of community leaders' homes, and intimidation of children and the elderly.

Based on a request from affected farmers, I began to work on a film documentary about the issue. I pored over legal documents, watched hours of footage taken over the years of struggle, and traveled to Bolívar to stay with community members and listen to their stories. Through the filmmaking experience, I learned more of the political background behind these stories of extractive activities. I also learned that these are not isolated stories. I learned from *campesinos* in Intag and Bolívar, indigenous peoples in Orellana, in lectures by scholars and activists as part of an ecology and conservation program, and from a political economy course in Quito's Catholic University, that Ecuador has a long way to go to overcome a history of extractive practices and to realize the progressive ideals included in their Constitution.

⁶ Interview with engineer David Reyes, Audio recorded, Rachel Conrad, Quito, Ecuador, January 2013.

After repeated exposure to all-too-familiar stories of government, military, and police-backed incursions by private extraction companies into rural, biodiverse areas that are home to *campesinos* and indigenous peoples, I wanted to go beyond the research done for the documentary, and further investigate the institutions, models, trends, and politics that are legitimizing such harmful extractivism despite progressive laws and rhetoric. As part of continued efforts to support community members in their struggle for land, water, and wellbeing in the Dulcepamba watershed, I wanted to further investigate how the small-scale San José del Tambo "clean energy" hydroelectric project has become a menace and a disgrace to the progressive and inclusive ideals adopted by the Ecuadorian state at the turn of the century. I also wanted to explore president Correa's claim that increased natural resource extraction is necessary for the greater good of Ecuador's development. Is Western development what Ecuadorians voted for in their Constitution? Is extraction really necessary for Ecuadorian well being, or can a more sustainable economy be built?

I will define extractivism as the taking or utilizing of natural resources for industrial purposes, in a way that irrecoverably harms the natural and social environment. While there is extensive scholarship on the extractive nature of mining and petroleum drilling in Ecuador, and on the country's strong constitutional rejection of the western extractivist development model, there is a dearth in analyses of the extractivist nature of hydroelectric generation. I hope to partially fill this gap in the analysis here.

I present here an analysis of natural resource extraction in Ecuador and its social repercussions, with a focus on hydroelectric energy production. I aim to show that the hydroelectric industry in Ecuador is not as "clean," sustainable, or non-extractive as it is

purported to be. I use a post-development lens to demonstrate the negative repercussions of "neo-extractivism" in Ecuador. I expand upon "neo-extractive" hydroelectricity production through a case study of the San José del Tambo hydroelectric project. I also explore international support for hydroelectric extractivism in Ecuador with an analysis of the United Nations Clean Development Mechanism and its misleading framing of extractive projects as "sustainable development."

I will begin by exploring the extractive character of the western development model. I will then examine the marginalizing effects of this model in Ecuador, focusing on the extractive industries. I will present the history of struggle surrounding the San José del Tambo hydroelectric project and connect this case to the forces at work behind extractive river-basin engineering at the expense of local communities and food sovereignty across Ecuador. I will delve into the international support of the United Nations Clean Development Mechanism for often-extractive "clean" development projects, including the San José del Tambo project. A narrative of this injustice, with information gathered from interviews and research, will hopefully be a valuable tool for understanding and action in the San José del Tambo struggle and future struggles. I plan to share my thesis with those who have the willingness and tools to join in solidarity with the struggle of the communities of the Dulcepamba River watershed.

Methods

I carried out interviews during two trips to Ecuador-the first for six months, between January and June of 2012, and the second for one month, between December 2012 and January 2013. I visited the Dulcepamba watershed in Bolívar province where the San José del Tambo hydroelectric project is being built on both trips to Ecuador. I

stayed with two different families, who shared with me their homes, their delicious harvests, and their stories. Interviews in the Dulcepamba watershed in 2012 were originally for the above-mentioned documentary, but they also have been utilized in this thesis. I was given 14 hours of footage that covers important moments over three years of the San José del Tambo hydroelectric conflict, which I draw on in this work. Interviews during my second visit were specifically for this thesis. I traveled to the Dulcepamba watershed with Sr. David Reyes of Acción Ecológica on both occasions, and he introduced me to many inspiring people, some of whom I interviewed. He also gave me important background information and guidance on these trips, throughout my internship with him, and over email to this very day.

During both visits to Ecuador, I interviewed the mayor of Chillanes, one of two cantones (similar to counties) that encompass the Dulcepamba watershed. In Quito, I interviewed Hidrotambo's technical manager, government officials associated with the project, and a political economist. I asked questions specifically about the San José del Tambo hydroelectric project and about the political economy surrounding the project and others like it in Ecuador.

I found out that the San José del Tambo project has been registered as a United Nations Clean Development Mechanism (CDM) project, and wanted to investigate the CDM in Ecuador and the activities it funds. I therefore interviewed the National Coordinator of the CDM in Ecuador, a third party auditor involved in registering the San José del Tambo project with the United Nations' Clean Development Mechanism, and an expert from a California-based NGO who has researched the Clean Development Mechanism. I also interviewed an Ecuadorian water lawyer, who helped me to clear up

confusion about water law, past and present. Finally, I interviewed an economist from the United States who has studied copper mining in the Intag region of Ecuador, and who advised the Ecuadorian Constitutional Assembly on the writing of the 2008 Constitution.

In total, I carried out 17 interviews and talked more informally to many other people. I wove what I learned from these interviews in with research on the legal and social history of the San José del Tambo hydroelectric project, the hydroelectric sector in Ecuador, extractivism, post-development and post-extractivist theories, and Ecuadorian constitutional rights. From interviews, conversations, and research, I was able to place the San José del Tambo project in the political economic context of extractivism and Western development.

Literature Review

Development theory has informed extractive activities in Ecuador for half of a century. According to Michel Foucalt and numerous other scholars, the Western development model originated after World War Two. With the end to direct colonialism, the rise of the United States as a world hegemon, and the resulting formation of a new model of North-South global relations, the world was divided between "developed" and "underdeveloped" countries, and the "underdeveloped" term was almost exclusively reserved for former colonies. Development was to have been "a post-colonial project, a choice for accepting a model of progress in which the entire world remade itself on the model of the colonizing modern West, without having to undergo the subjugation and exploitation that colonialism entailed."⁷

⁷ Vandana Shiva, *Staying Alive: Women, Ecology, and Survival in India*, 1st Edition, (New Delhi: Kali for Women, 1988) p.1, http://www.arvindguptatoys.com/arvindgupta/stayingalive.pdf

The assumption was that the Western style of progress was possible for everyone. Vandana Shiva, Indian eco-feminist and anti-globalization author explains that, "Concepts and categories about economic development and natural resource utilisation that had emerged in the specific context of industrialisation and capitalist growth in centers of colonial power were raised to the level of universal assumptions."⁸ Development was viewed as a natural and inevitable civilizational path, and it was assumed that this path should and could apply to the newly independent Third World countries. These countries were set on a path towards development, which was assumed to mean high efficiency and productivity, where unlimited material growth could be achieved. The notion of development continues to inform policy and political agendas across the globe.

Since the 1950s, important criticisms of Western development agendas have been formulated. Post-development theorists like Arturo Escobar and Boaventura de Sousa Santos emphasize that economic development is a power device. According to these authors, development activities give rise to internal colonialism. Vandana Shiva explains,

Development as capital accumulation and the commercialization of the economy for the generation of "surplus" and profits thus involved the reproduction not merely of a particular form of creation of wealth, but also of the associated creation of poverty and dispossession. A replication of economic development based on commercialization of resource use for commodity production in the newly independent countries created internal colonies.⁹

The development framework allows foreign or multinational corporations to continue to profit from former colonies, while low-impact economic activity generally does not.

Development theorists also hold that development as a power device perpetuates the devaluation of multiple modes of life, ways of social relation, and types of knowledge

⁸ Vandana Shiva, Staying Alive: Women, Ecology, and Survival in India, p. 1

⁹ Vandana Shiva, *Staying Alive: Women, Ecology, and Survival in India*, p. 2

that exist in the global South, which are relegated to a position of "backwardness" in comparison with the single, unquestionable way forward that has been established. The United Nations Department of Social and Economic Affairs published a report on the "Measures of Economic Development of Underdeveloped Countries" in 1951, which recognized this exclusionary characteristic. It said,

There is a sense in which rapid economic progress is impossible without painful adjustments. Ancient philosophies have to be scrapped; old social institutions have to disintegrate; bonds of caste, creed, and race have to burst; and large numbers of persons who cannot keep up with progress have to have their expectations of a comfortable life frustrated. Very few communities are willing to pay the full price of economic progress.¹⁰

Western development legitimizes support of any project that will increase economic

production. Governments, companies, and NGOs act in the name of development while

they destroy nature and threaten the life of entire cultures and communities.



Figure 4: "Without bombs, without jails, without beggars, without poverty, without contamination, without foreign debt, without junk food, and they call *me* primitive." Ecuador, Photo by Rachel Conrad

The realization of western development necessitates over-extraction of natural

resources. Post-development theorist Alberto Acosta wrote, "These practices [of

¹⁰ Quoted in Arturo Escobar, *Encountering Development: The Making and Unmaking of the Third World*, (New Jersey: Princeton University Press, 1994), p.1

extracting natural resources] turn out to be essential to sustain a certain way of 'developed' life that has been formed by the imaginary of success and happiness laid out by the global North for humanity, and that is unarguably hegemonic."¹¹ Underlying development objectives is the idea that, "...nature is an absolutely inexhaustible resource,"¹² an infinite supply for development aspirations. Successful development necessitates a continuation or increase in the current rhythm of production and consumption, which, as thousands of scientists have warned the world, will lead to an environmental catastrophe of unimaginable consequences.



Figure 5: "Consume, consume, die." Graffiti in Quito, Ecuador, photo by Rachel Conrad For an "underdeveloped" society to move beyond policies oriented towards achieving a Western form of industrialization and economic activity, a model unique to the history and culture of that society must be presented as an alternative. An important addition to post-development theory is the articulation of a societal model informed by the indigenous cosmovision *Sumak Kawsay*, the Andean indigenous concept of living *well* rather than living *better* described above. According to the Permanent Working

¹¹ Acosta, Alberto, *et al*, "Más Allá del Desarrollo," Grupo Permanente Sobre Alternativas al Desarrollo, (Quito: Fundación Rosa Luxembourg/Abya Yala: Noviembre, 2011) <u>http://rio20.net/wpcontent/uploads/2012/07/mas-alla-del-desarrollo_30.pdf</u>

¹² Entrevista con Boaventura de Sousa Santos, "Economía verde: la conciencia máxima del capitalismo," (America Latina en Movimiento: 2012) http://alainet.org/active/50095&lang=es

Group on Alternatives to Development,¹³ a horizon of thought is emerging in Latin America that is "outside of the developmentalist, modernist, economist, and linear device."¹⁴ This line of thought is reflected in the rhetoric and goals of social movements in Ecuador, in Ecuador's 2008 Constitution, and in the writings of leftist scholars in Ecuador and throughout Latin America. Scholars and activists who contribute to this 'horizon of thought' come from ideological bases in Marxism, Third Worldism, Anti-Globalization, Post-Developmentalism, Post-Extractivism, and Social Ecology.

While these authors are not confined to one field of thought, they all explore the notion of *Sumak Kawsay* as an alternative to the Western development model. Many of them address shortcomings of the Western development model implemented by president Rafael Correa. They also address both problems with extractive practices that accompany the development model, and pathways to a post-extractivist reality that are informed by indigenous ways of knowing. None of the authors focus their writings on hydroelectric energy production, but many of them include the current mode of hydroelectric production under the banner of extractivist development practices that they critique.

This thesis draws heavily on the writings of Alberto Acosta, Ecuadorian leftist politician and economist who identifies with the above-described line of thought. Acosta is the former minister of energy and mines in Ecuador, was the president of the 2008 Constitutional Assembly, and was one of the principal ideologues of president Correa's Citizen's Revolution in the beginning years of the president's governance. Acosta has since become an outspoken critic of the Correa regime, accusing the president of failing to implement the post-extractivist and inclusive ideals that he campaigned with in 2006.

¹³ An ongoing journal of socio-economic thought on issues with Western development in Latin America (see footnote #11)

¹⁴ "Más allá del Desarrollo," 2011

Acosta is currently a leader of a leftist opposition political coalition called the Plurinational Unity of the Lefts, and he ran for president in 2013 on a Plurinational Unity ticket. Acosta has written books like "the Curse of Abundance" and others in which he presents his anti-extractivist and post-developmentalist positionality.

Acosta has collaborated with several of the other authors that I draw upon, including Eduardo Gudynas, senior researcher at the Latin American Center of Social Ecology (CLAES) and expert on alternatives to development, and Esperanza Martinez, founder of Acción Ecológica and co-founder of Oilwatch, an international network to defend delicate ecosystems and the ancient rights of indigenous peoples against the ravages caused by petroleum extraction.

President Correa has advocated for the increase of extractive activities in Ecuador to achieve Western-style development. These activities are adversely affecting certain populations, which have historically been excluded politically and expelled from their lands. In Chapter 1, I will go into depth about these extractive activities and contextualize them within the current political trends and new constitutional framework in Ecuador. I will also outline alternatives for a post-development, post-extractivist future proposed by social movements and Ecuadorian leftist intellectuals.

In Chapter, 2, I will present extensive field-based research on the San José del Tambo project, an extractive small-scale private hydroelectric project supported by the Ecuadorian government and an international market-based development mechanism. I will detail the direct challenge that this project poses to the progressive, inclusive, postextractive and post-developmentalist ideals held in the 2008 Constitution. Primary sources provide opinions on the extractive nature, and the supposedly beneficial nature,

of the San José del Tambo project. The history of struggle and repression informed by trips to the region, interviews, and research provides a window into the state-sponsored violence, criminalization, and censorship that President Correa's Alianza PAIS party's government has increasingly utilized to forward their extractivist development agenda.

In Chapter 3, I will explore the shortcomings of a market-based development model to address climate change, and I will illustrate these shortcomings through an analysis of the U.N. Clean Development Mechanism's support of the San José del Tambo project. In this Chapter, I draw heavily from the work of Larry Lohmann, researcher for the Cornerhouse, a British organization that aims to support democratic and community movements for environmental and social justice. He provides a critique of the incursion of the Western development model in the international climate change regime. Lohmann worked with Alberto Acosta and Esperanza Martinez to publish a book called, "Carbon Markets: The Neoliberalization of the Climate," which has contributed greatly to literature on the shortcomings of addressing environmental issues within a Westerndominated market-based system. Lohmann critiques the commodification of Nature through carbon markets, which has so often been justified in the name of "sustainable" development. He asserts that such commodification of carbon is encouraging business as usual emissions in the global North, while devastating rural communities in the global South through industrial development projects that appropriate natural resources. Carbon markets have supported extractive hydroelectric projects in Ecuador, including the San José del Tambo project.

In the conclusion, I will reinforce the importance of Ecuador's 'refounding' at the turn of the century. I will point out that the progressive and inclusive ideals articulated in

the 2008 Constitution have yet to be fully implemented, and that social movements are acting to reverse the perversion of their originally revolutionary ideals, and to implement a post-extractive model informed by those revolutionary ideals. I will tie together the efforts being made on local, national, and international levels to realize a post-extractive future. I will tie together the solutions laid out by leftist intellectuals and social movements in Ecuador, with actions taken by local community members in the Dulcepamba watershed, and global efforts to critique market-based solutions to climate change that support such extractive activities, and I will conclude with the hope that, despite increasing state repression, these growing networks of resistance will pave the way to a true realization of the ideals embodies in the Ecuadorian Constitution.

Chapter 1: The Political Economy of the 'Neo-Extractivist' Model in Ecuador

Protests and the fall of strident neoliberalism

Ecuador's colonial and postcolonial history is marked by inequality and resource exploitation. Since colonial times, Ecuador's natural resources have been extracted, and to various degrees, utilized as primary materials for exports to the global North with low added value. The export of cacao, bananas, coffee, and sugarcane beginning during the colonial era and continuing to this day, and the extraction of petroleum, minerals, and timber during the post-colonial era, has resulted in the destruction of land and water and a dependence on imports of industrialized goods. These processes have sustained a characteristic enclave economy in Ecuador for much of 500 years. Wealthy and powerful colonists, nationals, and foreign businesses have concentrated and controlled vast swaths of land and accompanying water and minerals, and have often stripped the land to grow massive quantities of export cash crops. The wealth and power gap between those whose resources are appropriated and the appropriators has prevailed beyond the colonial period.¹⁵ The petroleum industry became a primary agent responsible for appropriating wealth and destroying land and water in the 1970s, and open-pit mining as well as hydroelectric projects have recently become significant threats as well. The plunder of land and water has often left surrounding small-scale *campesino* agriculture unviable, caused the displacement of many communities, and additionally has grave implications for cultural identity and community cohesion.

Between the mid-1970s and the 1990s, Latin America was considered the

¹⁵ Alberto Acosta y Esperanza Martínez (Comp.), *Plurinacionalidad Democracia en la diversidad*, (Editorial Universidad Bolivariana, Santiago, Chile: 2009), p. 208.

laboratory of the "Neoliberal Experiment,"¹⁶ run by the International Monetary Fund (IMF) and the World Bank (WB) at the behest of the United States and Western Europe. Ecuador was no exception. In close adherence with the Washington Consensus, the nation made a shift from, "…inward-oriented development strategies promoting national self-sufficiency to outward-oriented free trade aimed at total integration into the world market,"¹⁷ coupled with limited government intervention to ensure "smooth functioning of markets."¹⁸ Immense social inequalities and environmental harm stemmed from these neoliberal policies. IMF structural adjustment policies and government austerity measures worsened working conditions, increased labor flexibilization, reduced wages, deregulated across the board, and aggressively forwarded the commodification and extraction of natural resources. Public services deteriorated, as did the provision of state welfare. Wealth was concentrated, and a dependence on transnational institutions resulted in a crippling foreign debt which reached U.S. \$8.4 billion in 1984.¹⁹

Neoliberal policies and Ecuador's 1998 constitution reflected a dedication to economic growth (above broader social considerations) as a means to achieve Westernstyle construction-centered development. As a result, global capital was extended into, "new social and socio-environmental spaces and relations in the interest of capitalist accumulation."²⁰ Water services were commodified, corporatized, and privatized, notably in Ecuador's largest city, Guayaquil, by a subsidiary of the Bechtel Corporation called

¹⁶ Patricio Escobar, "The New Labor Market: The Effects of the Neoliberal Experiment in Chile" (Latin American Perspectives: April 2013) <u>http://lap.sagepub.com/content/30/5/70.extract</u>

¹⁷ Lynne Phillips, *The Third Wave of Modernization in Latin America: Cultural Perspectives on Neoliberalism.* (Lanham, MD: Rowman & Littlefield) 1998, p. xi.

¹⁸ Thomas Leonard, "Encyclopedia of the Developing World," (London: Taylor & Francis: 2006), p. 1211.

¹⁹ Edmundo Flores and Tim Merrill, "Recent Economic Performance," *Ecuador: A country study*, (Washington, D.C.: Library of Congress Federal Research Division, 1989).

²⁰ Adrienne Roberts, "Privatizing Social Reproduction: The Primitive Accumulation of Water in an Era of Neoliberalism" Antipode Vol. 40 No. 4 (Canada: Antipode, 2008), p. 535.

Interagua. While water had previously been managed and supplied at reasonable prices by the local government, it became inaccessible to thousands when it fell into the hands of a profit-minded corporation. According to ECAPAG, Guayaquil's state-owned agency that is charged with monitoring and regulating Interagua, the company cut off water service to 32,204 families in Guayaquil who could not pay Bechtel's high rates, and 98,585 families still had not been able to pay water debts to the company in 2009.²¹

The 1998 Constitution as well as global neoliberal pressures had opened the doors for mass water privatization, and privatizations occurred not only for potable water services, but also for hydroelectric projects. In 2003, in San José del Tambo, Bolívar, the private company Hidrotambo S.A. privatized most of the waters of a watershed inhabited by 45,000 farmers. Other rivers in Ecuador have been privatized and then dried or flooded out by diversions or large reservoirs for hydroelectric projects (the Apaquí project, the Angamarca project, and numerous others), leaving local *campesinos* without water for themselves, their crops and their animals.²²

The capitalist view of neoliberal modernization continued to hold sway through much of the 1990s in Ecuador, but began to falter by 2000. Prolonged political instability and economic crises that marked the neoliberal era weakened traditional political parties and created space for previously excluded political actors. New actors were, not traditional leftists or from traditional political parties, but instead from movements of *campesinos*, women, and indigenous peoples. Frustrations felt by these groups reached a boiling point in the early 1990s and sparked massive protests led by several increasingly

²¹ Max Mader and André Rothenbuler, Editors, *How to Challenge Illegitimate Debt: Theory and Legal Case Studies*, (Aktion Finanzplatz Schweis, Basel, Switzerland: 2009), p. 288

²² "Salta en Ecuador el conflicto del agua," (Quito: Ecuador Inmediato, Febrero de 2007), <u>http://www.ecuadorinmediato.com/index.php?module=Noticias&func=news_user_view&id=54981&u mt=salta_en_ecuador_conflicto_del_agua</u>

political indigenous organizations. One of the most prominent actors that took the stage at this time was the Confederation of Indigenous Nationalities of Ecuador (CONAIE), a convergence of the two largest highlands and lowlands indigenous confederations.²³ The CONAIE-led protests paralyzed the economy with nationwide roadblocks that inhibited the flow of goods into cities. The uprisings forced political elites to begin to address the concentration of wealth by industrialists and the landed class; long-standing and unresolved issues of land ownership, education and economic development; the appropriation, commodification, and privatization of land and water; and other neoliberal structural adjustments.²⁴

The protests led to the overthrow of President Jamil Mahuad in January of 2000, signifying the demise of the U.S. backed neo-liberal regime that had governed in Ecuador since the mid 1970s. After the 2000 coup, Lucio Gutierrez was elected president on a platform that promised inclusive and anti-neoliberal governance. While he did bring indigenous representation into his government, it was only a symbolic move, as he was also accused of purposefully fractionalizing the indigenous movement. Gutierrez applied many of the same market-oriented policies, and was thus impeached in 2005.²⁵ The social movements sought out political leaders who would bring about the changes promised at the culmination of the 1990s protests, and in 2006 found a charismatic U.S. trained economist, Rafael Correa Delgado, who promised to implement these changes through a direct, participatory democratic system with indigenous influences. However,

²³ Amy Kennemore and Gregory Weeks. "Twenty-First Century Socialism? The Elusive Search for a Post-Neoliberal Development Model in Bolivia and Ecuador," Bulletin of Latin American Research. Vol. 30, No. 3, (North Carolina: University of North Carolina at Charlotte, 2011), p. 8

²⁴ Marc Becker, Indians and Leftists in the Making of Ecuador's Modern Indigenous Movement (North: Carolina: Duke University Press, 2008) p. 6

²⁵ Mijeski and Beck, *Patchakutik and the Rise and Decline of the Ecuadorian Indigenous Movement* (Ohio, U.S.: Ohio University, 2011), p.32.

these changes were only minimally realized.

In the place of pure neoliberalism, president Correa and his Alianza PAIS party created what the Ecuadorian government and the governments of Venezuela and Bolivia are calling a "Twenty-first century socialist regime." Correa's twenty-first century socialism has been characterized as a moderate leftist regime that is nationalist and anti-U.S, but does not reject capitalism like 20th century socialism tended to do. At the outset, Correa's government promised to forward social equality, human rights, alternatives to Western development, regional integration, and a rejection of the neoliberal oligarchy. Correa and Alianza PAIS promised to "refound" the country by formulating a new constitution through participatory democracy, whose content would espouse the political and social ideals supported by the popular protests at the turn of the century. Correa established a "Citizen's Revolution" through which he promised that all citizens could participate in the construction of their common future, which would be laid out in the new constitution.

Women, indigenous peoples, environmentalists, labor unions, and other social groups participated in the writing of the 2008 Constitution, and it was approved by a popular vote. It was designed to direct the dismantling of neoliberal exclusionary policies and a restoration of the regulatory functions of the state, to bring about processes of decolonization and the recovery of many forms of sovereignty, and to recognize and incorporate indigenous ways of knowing and progressive concepts that fundamentally challenged the doctrine of Western neoliberal development. Indigenous sensibilities²⁶ and progressive ideals were translated into demands such as a right to food sovereignty,

²⁶ Gottinger, Paul, "Correa and Ecuador's Left: An Interview with Marc Becker" (New Left Review, February, 2013), <u>http://upsidedownworld.org/main/ecuador-archives-49/4123-correa-and-ecuadors-left-an-interview-with-marc-becker</u>

collective rights, the Rights of Nature to exist and maintain its vital cycles,²⁷ and the right to the Good Way of Living. The Constitution also established the human right to water and explicitly disallowed the privatization of water.

The "refounding" "plurinational" constitution

"Good living for humans is only possible if the survival and integrity of the whole of the web of life is ensured." Eduardo Gudynas, researcher at the Latin American Center of Social Ecology, 2009

As a way to incorporate Indigenous cosmologies into the governing of the country, Ecuador was defined as a plurinational State in the 2008 Constitution. As a plurinational state, the indigenous notion of nationality, as a community with historical ties,²⁸ was recognized and protected. Indigenous peoples, Afro-Ecuadorians and *montubios* were recognized as distinct nationalities and endowed with distinct collective rights and status. Not only was plurinationality recognized, but indigenous and Andean knowledge, beliefs, and values was incorporated throughout the Constitution, in its laws and rights.

Sumak Kawsay

One of the most revolutionary additions to values, laws, and rights found in the 2008 Constitution is the Andean indigenous way of living called *Sumak Kawsay*, a Kichwa word which is translated to *Buen Vivir* in Spanish and the Good Way of Living in English. Its inclusion in the constitution applies to all Ecuadorians. *Sumak Kawsay* is an Andean concept of living *well* rather than living *better*. A more full definition of the word is, "to live in harmony and balance; in harmony with the cycles of Mother Earth, of the

²⁷ "El agua, un derecho humano fundamental," (Quito, Ecuador: CEDHU, Agosto del 2009), p. 3, site accessed March 25, 2013, <u>http://www.rebelion.org/docs/113450.pdf</u>

²⁸ Plurinacionalidad. Democracia en la diversidad, p. 208

cosmos, of life and of history, and in balance with all forms of existence."²⁹ In *Sumak Kawsay*, the conception of a linear and progressive process does not exist, nor does the conception of poverty as a lack of material goods. *Sumak Kawsay* therefore favors sustainability over material accumulation and the commodification of resources which would advance the Western linear path to development. *Sumak Kawsay* is diametrically opposed to the western dualism where nature opposes society and the individual opposes the community. According to *Sumak Kawsay*, humans are part of and not contrary to nature, and community is valued over the individual. Thus, *Sumak Kawsay* can only exist when all of Nature is respected and individuals act for the good of community.³⁰

The 2008 constitution uses *Sumak Kawsay's* ideals as a basis for its fundamental laws and principles. It establishes *Buen Vivir* (*Sumak Kawsay*) as a right, and its values are woven throughout the Constitution to secure the full exercise of the right. The preamble establishes the values and knowledge inherent in *Sumak Kawsay* as the ideological base of Ecuador's Constitution. "We, women and men, the sovereign people of Ecuador..." it says, "hereby decide to build a new form of public coexistence, in diversity and in harmony with nature, to achieve the good way of living, the sumak kawsay; A society that respects, in all its dimensions, the dignity of individuals and community groups..."³¹ Politically and legally, *Sumak Kawsay* was presented as a comprehensive challenge to Western developmentalism, by stressing the primacy of use value over exchange value, and by rejecting the concept of a linear progression from

 ²⁹ "Buen Vivir / Vivir Bien Filosofía, políticas, estrategias y experiencias regionales andinas," 2010.
 ³⁰ Ivonne Farah y Luciano Vasapollo, "Vivir Bien: Paradigma o No Capitalista?" (Italy: Universitá di Roma Sapienza CIDES-UMSA, 2011) http://www.dhl.hegoa.ehu.es/ficheros/0000/0694/25.Vivir bien Paradigma no capitalista.pdf

³¹ "Constitution of 2008 in English: The Constitution of the Republic of Ecuador," Political Database of the Americas, (USA: Georgetown University), Last Updated: January 31, 2011.

underdevelopment and poverty to development and wealth. To counter the plunder brought about by extractive Western development, food, water, nature, and humanity must be respected as interconnected parts of a whole. *Sumak Kawsay* was thus presented as the essential ideological framework to ensure the food sovereignty, Rights of Nature, and collective rights and Human Rights also established in the 2008 Constitution.

Food Sovereignty

One of the "rights of *Buen Vivir*" conferred in the Ecuadorean Constitution is to *Soberanía Alimentaria* (food sovereignty): the right of each nation to maintain and develop its own capacity to produce its basic foods, respecting cultural diversity. The idea of food sovereignty was accepted as an alternative to food security at the Food and Agriculture Organization's (FAO) World Food Summit in 1996 after prolonged pressure from the Vía Campesina, an international movement that coordinates peasant organizations of small and middle-scale producers, agricultural workers, rural women, and indigenous communities.³² Food security as defined by the FAO looks to generate enough food for the planet, but does not address *who* produces the food and *how* it is produced. For this reason, social movements advocate for food sovereignty as a more just goal than food security.

Ecuador particularized food sovereignty to the country's diverse cultures and ways of knowing by defining it as a part of the rights of *Buen Vivir*, (Art.13) and as "a strategic objective and an obligation of the State in order to ensure that persons, communities, peoples and nations achieve self-sufficiency with respect to healthy and culturally appropriate food on a permanent basis." (Art. 281) Article 281 lays out 14

³² Laurel E. Phoenix, Lynn Walter, Critical Food Issues: Problems and State-of-the-Art Solutions Worldwide, (ABC-CLIO, Santa Barbara, CA: 2009) p. 53.

directives to implement food sovereignty. The state must promote and financially support small and medium-scale farmers, their organizations and networks, and their access to land and water. It must foster independence from food imports by supporting local agriculture and through fiscal, tax, and tariff policies. It also must bolster crop diversification and agricultural biodiversity. It must introduce ecological and organic technologies, and forward the humane treatment of animals, ancestral wisdom around agriculture, and seed sharing, among other efforts. Food sovereignty is also referred to and supported in articles 13, 15, 282, 284, 304, and 318.³³ The Constitutional Assembly's hope was that the strong emphasis on Food Sovereignty in constitutional law would promote distributive and just agrarian policies favoring the country's wealth of small-scale sustainable farming over agro-industry.

Rights of Nature

"Man can not survive at the margins of nature... The human being is a part of nature, and cannot treat nature as if it were a ceremony to which he is a spectator."

--Alberto Acosta, president of the 2008 Constituent Assembly

Also, within the logic of *Sumak Kawsay*, the constitution established inalienable and enforceable Rights of Nature (Articles 71-74). Ecuador was the first country in the world to do so. Alberto Acosta, president of the 2008 Constitutional Assembly, elucidated the logic behind the Rights of Nature: "Nature as a social construction should be re-interpreted and integrally examined if we do not want to risk human life on Earth. Humanity is not apart from nature, and nature has limits."³⁴ Nature was given value in

 ³³ "Constitution of 2008 in English: The Constitution of the Republic of Ecuador," Last Updated: 2011
 ³⁴ "Entrevista a Alberto Acosta: "La 'revolución ciudadana,' el modelo extractivista y las izquierdas críticas," por Franck Gaudichaud, (Upsidedown World, Febrero, 2013),

http://upsidedownworld.org/main/en-espatopmenu-81/4110-entrevista-a-alberto-acosta-la-revolucion-

and of itself in the constitution, independent of its utility to humans. The rights of Nature are not merely hortatory; they are enforceable rights. Each "person, community, people, or nationality" has public authority to enforce the rights of Nature, according to normal constitutional processes (Art. 71).³⁵ The state committed to restricting extractive practices by stating that, "The State shall apply preventive and restrictive measures on activities that might lead to the extinction of species, the destruction of ecosystems and the permanent alteration of natural cycles" (Art. 73). In recognition that extractive practices have descerated Nature for centuries, the constitution also gave Nature the right to be restored, especially "in cases of severe or permanent environmental impact, including those caused by the exploitation of nonrenewable natural resources" (Art. 72). The constitution gave people the right to "benefit from the environment and the natural wealth, enabling them to enjoy the good way of living," (Art.74) which inherently means that humans, who are part of Nature, cannot destroy Nature in order to benefit from it.

Water

Water in Ecuador has long been a, "national good for public use," which means that the state owns the water resources and gives out use rights in the form of concessions. The 1998 Constitution recognized "the right to a quality of life that ensures health, feeding and nutrition, and *potable water*…" among other things (Art. 42) (emphasis added).³⁶ The country's Water Law, written in 1972, also set out a hierarchy of priority water use rights, with human use receiving first priority, and productive uses last priority. Despite these recognitions of the importance of human access to water above

ciudadana-el-modelo-extractivista-y-las-izquierdas-criticas

³⁵ Professor Erin Daly, H. "Ecuadorian Court Recognizes Constitutional Right to Nature," (Wilmington, DE: Widener Environmental Law Center, Widener University, July 2011).

³⁶ "Constituciones de 1998" (Washington D.C.: Political Database of the Americas) <u>http://pdba.georgetown.edu/constitutions/Ecuador/ecuador98.html#mozTocId771894</u>

industrial uses, the 1998 Constitution cleared the way for growing private industrial control of hydraulic resources. It held that the state can, "grant water use to public-private partnerships or private companies, either directly or through devolution, in the form of a concession, association, capitalization, conveyance of shareholder property, or in any other contractual manner." (Art. 249) As discussed above, water privatization has greatly harmed rural communities.

A long history of uprisings from the indigenous movement and *campesino* sectors surrounding water rights resulted in a step forward, at least on paper, for water justice in 2008. The human right to water gained more encompassing legal protection in the 2008 Constitution in which water was protected within the rights of Nature, and the Human Right to Water was established. Water use rights prioritized food sovereignty, and the privatization of water was explicitly forbidden. The 2008 Human Right to Water was recognized as a fundamental human right that is, "essential and cannot be waived." (Art. 12). Article 12 goes on to say that, "Water constitutes a national strategic asset for use by the public and it is unalienable, not subject to a statute of limitations, immune from seizure and essential for life." Several clauses were also established to guarantee the fulfillment of this human right. For example, the State must, "Guarantee without any discrimination whatsoever the true possession of the rights set forth in the Constitution and in international instruments, especially the rights to education, health, food, social security and *water* for its inhabitants" (Art. 3.1) (emphasis added).³⁷

The Human Right to Water expanded on the priority use rights already in place in the 1998 constitution, by specifying a priority use right for irrigators contributing to food sovereignty above irrigators not contributing to food sovereignty, like agro-industrial

³⁷ "Constitution of 2008 in English: The Constitution of the Republic of Ecuador" 2011

exporters. The order of the priorities is: first for human consumption, second for irrigation *to guarantee food sovereignty*, third for ecological wealth (known in the United States as environmental flows), and fourth for productive activities (Art. 318). (emphasis added) The constitution reinforced the priority given to human use, food sovereignty, and ecosystem sustainability over industrial uses in Article 411, which states that the state must, "regulate the use and management of irrigation water for food production, abiding by the principles of equity, efficiency and environmental sustainability." The Human Right to Water was further protected by the inclusion of the mandate that Energy Sovereignty (the promotion of in-country energy production that is preferably clean technology) cannot be forwarded at the expense of Food Sovereignty: Article 15 states that, "...Energy sovereignty shall not be achieved to the detriment of food sovereignty nor shall it affect the right to water."³⁸ In sum, water became a resource reserved for all people, and its right to exist and maintain its vital cycles promised the long-term sustainability of the resource in Ecuador.

Privatization

The Ecuadorian people, authors and ratifiers of the 2008 Constitution, overcame the market-oriented view of water as a commodity to be purchased by *customers* who can afford it, and restored its value as a resource to be used and respected by all *citizens*. In this vein, Article 282 of the constitution establishes that, "the monopolizing or privatizing of water and sources thereof" is forbidden. The privatization of water is again forbidden in Article 318, which states that, "water is part of the country's strategic heritage for public use; it is the unalienable property of the State and is not subject to a statute of

³⁸ Ibid., 2011

limitations. It is a vital element for nature and human existence. Any form of water privatization is forbidden.³⁹

To reverse existing water privatization, the 2008 constitution lays out specific state responsibilities to promote redistributive policies. In Article 281 on Food Sovereignty, the state is obligated in numeral 4 to, "Promote policies of redistribution that will enable small farmers to have access to land, water and other production resources." Article 282 forbids large estate farming and land concentration, along with the monopolizing or privatizing of water and its sources.⁴⁰ The re-conceptualization of water, together with the re-conceptualization of the wellbeing of humans as part of Nature, represents a strong denunciation of 500 years of extractive practices.

Failure to "refound" the country

The constitution laid out extensive measures to implement all of these new or strengthened rights, and provided stronger and more accessible pathways for citizens to defend their rights if violated. A concrete course of action, the National Plan for Good Living 2009-2013, was drawn up by Correa's government for the first five years of implementation of the *Sumak Kawsay* in Ecuador. The Plan fundamentally challenges the Western development model by quoting Boaventura de Sousa Santos, Portuguese professor of Economics:

The hegemonic ideas of progress and development have generated a monoculture that invisibilizes the historic experience of the diverse peoples that compose our societies. A linear vision of time supports the concept of progress, modernization and development in which history has only one purpose and one direction: developed countries are ahead and are the "model" all societies should follow. Whatever falls outside these ideas is considered savage, primitive, obsolete, pre-modern.

³⁹ Ibid., 2011

⁴⁰ Ibid., 2011

 $(Sousa Santos, 2006: 24)^{41}$

It certainly appeared that the state's "refounding" with increased participation and progressive and inclusive ideals would allow for a departure from the neoliberal extractivist development model. However, the Alianza PAIS government has fallen short in implementing the post-extractivist and post-developmentalist agenda within the National Plan for Good Living and the 2008 Constitution. Although president Correa was instrumental in the ideological and legal "refounding of the nation," it appears that, as Latin American indigenous movement scholar Marc Becker says, the president "wants to see those [radical changes] exclusively on the levels of symbolic statements rather than something that will be operationalized."⁴²

The processes of transformation associated with Alianza PAIS' 21st Century Socialism represent a decided divergence from the neoliberal period in South America, in that the government has reclaimed the role of the state, reduced the wealth gap, encouraged regional integration, and has made symbolic moves to reclaim sovereignty from the U.S. and transnational institutions.⁴³ However, fundamental changes promised in the 2008 Constitution have been left to gather dust upon the pages of a document largely formulated by a revolutionary and hopeful conglomeration of social movements.

The president, who, after its ratification called the Constitution "the best in the world" and pronounced that it would last for "300 years," quickly weakened his stance only a year into his presidency, saying that the Constitution has "too many rights," and

⁴¹ "El Plan Nacional para el Buen Vivir," (Ecuador: Un esfuerzo colectivo: Sitio acedido el 19 de abril, 2013), <u>http://plan.senplades.gob.ec/un-cambio-de-paradigma</u>

⁴² "Correa and Ecuador's Left: An Interview with Marc Becker," February 12, 2013.

⁴³ In opposition to U.S. hegemony, the President refused to sign a free trade agreement with the U.S.; ejected the U.S. army base; criticized Plan Colombia, the U.S.'s anti-narco trafficking policy in the region; and rejected sanctions against Cuba, Iran, Syria, and Gaza. Correa has also pushed for economic sovereignty through greater regional market integration, via a strong role in the Summit of the Bolivarian Alliance for the Peoples of Our America (ALBA), Bank of the South, and Union of South American Nations (UNASUR), and the Community of Latin American and Caribbean States CELAC.

that it therefore must be changed.⁴⁴ While the president has yet to fundamentally change the constitution, his government has gone ahead and violated it to move forward with their extractivist-populist agenda.

Limited poverty reduction and development at the expense of people and nature

The Alianza PAIS government is popular for some redistribution of monetary wealth and for claiming sovereignty from transnational corporations and regimes. Under a continued developmentalist mindset, poverty reduction is being realized mainly as a consequence of economic growth 'at all costs,' based on extractive activities that are often dependent on foreign capital. Social welfare programs are much less a consequence of redistribution of wealth, much of which has stayed in the hands of a select number of wealthy capitalist families. The cost of mostly urban poverty reduction and industrial development is instead shouldered mainly by indigenous peoples and *campesinos* who share a disproportionate and life-threatening burden of harm from the neo-extractive development ventures that finance poverty reduction and development. The way in which Alianza PAIS has addressed wellbeing is narrow, exclusive, and marginalizing.

To redistribute monetary wealth more equitably, Alianza PAIS instituted a more progressive income taxation system and has channeled tax revenues towards education, health, and infrastructure. President Correa doubled the human development bond, which is poverty assistance payments, from \$35 to \$50 dollars per month.⁴⁵ This payment goes to the poorest 1.2 million homes out of a 14.5 million total population.⁴⁶ The Alianza

⁴⁴ "Entrevista a Alberto Acosta: La 'revolución ciudadana,' el modelo extractivista y las izquierdas críticas," Franck Gaudichaud, (Upsidedown World: 2013) http://www.rebelion.org/noticia.php?id=163177

⁴⁵ "The man with the mighty microphone: Having mixed the good, the bad and the ugly during six years in power, Rafael Correa is heading for another term." 2013

⁴⁶ "Bono de Desarrollo Humano y Pensiones," (Ecuador: Ministerio de Inclusión Económica y Social), <u>http://www.pps.gob.ec/PPS/PDS/BDH/INF/InformacionyServicios.aspx</u>, sitio acedido 5 de Abril, 2013

PAIS government also made credits available for housing loans, subsidized electricity rates for low-income consumers, introduced a government stipend for the disabled, and re-channeled millions of dollars into other social programs.⁴⁷ Many schools, hospitals, and infrastructures have been built. While the economic and social policies led to significant reductions in poverty and inequality, these gains were largely limited to urban areas that provide the base of Correa's electoral support.⁴⁸

The government has funded a small part of its social welfare programs through the new progressive income tax structure, and with capital saved by alleging their sovereign debt was illegal and not paying said debt. President Correa renegotiated illegal foreign debt accrued during the neoliberal period, with a favorable agreement that would save the government approximately U.S. \$300 million per year in interest payments.⁴⁹ However, the largest portion by far of the state's social welfare budget is increasingly found in petroleum deep below the soils of the Amazon, minerals under the towering Andean mountains, and electricity in Ecuador's rushing and abundant rivers, where *campesino, montubio*, and indigenous peoples, live and depend on these very rivers and soils for their sustenance and wellbeing. Social programs are primarily funded by increased resource extraction, rising global oil prices, and revenues made by royalties imposed upon transnational extraction companies.

The funding of poverty reduction and infrastructure with capital acquired from natural resource extraction leads to a vicious cycle of displacement and urban poverty. Those who are affected by extraction are often displaced and are forced to move to urban

⁴⁷ "Twenty-First Century Socialism? The Elusive Search for a Post-Neoliberal Development Model in Bolivia and Ecuador," 2011

⁴⁸Marc Becker, "Building a Plurinational Ecuador: Complications and Contradictions," (Socialism and Democracy: August, 2012) <u>http://www.yachana.org/research/ulcuango.pdf</u>, p.4

⁴⁹ "Correa and Ecuador's Left: An Interview with Marc Becker" 2013

centers where they become 'poor' without the natural resources that sustained their wellbeing in a rural lifestyle. Those people are then more dependent on Correa's poverty reduction funds than they were originally. This can be seen through the following characteristics of the petroleum extraction sector: The government significantly increased federal funding for new social programs through a 2010 law that increased government's share of petroleum profits from 13 to 87%. The law increased state revenues by almost a billion dollars.⁵⁰ Ecuador currently exports 500,000 barrels of crude oil every day, which finances 35 percent of the state's budget.⁵¹ Oil drilling is harming the wellbeing of Amazonian indigenous peoples by poisoning the water and soils they depend on, and contributing to rampant deforestation. Many of those harmed by petroleum extraction are moving to urban centers. Once new extraction begins, on lands opened up by the eleventh round of petroleum bids, which will occur in 2013, it is expected that overall petroleum production will increase. With an increase in petroleum extraction, several indigenous nationalities in Pastaza and Morona-Santiago provinces will be severely affected, as will an additional 3.8 million hectares of primary forest.⁵² Alberto Acosta explained that increased extractivism and high global oil prices "has allowed [Alianza PAIS] to sustain a 'politics of subsidies' -- not of transformation -- that makes certain social sectors fall into the clientelistic webs of the government," while others are greatly harmed by extractive practices, and the wealth gap continues to be enormous.⁵³

⁵⁰"Building a Plurinational Ecuador: Complications and Contradictions," p.3

 ⁵¹ Alberto Acosta y Decio Machado, "Movimientos comprometidos con la vida. Ambientalismos y conflictos actules in Latinoamérica," (Revista OSAL: 9 de Septiembre, 2012)
 ⁵²Ibid

⁵³ "Entrevista a Alberto Acosta: La "revolución ciudadana", el modelo extractivista y las izquierdas críticas," (Revista Viento Sur: Febrero, 2013) http://www.rebelion.org/noticia.php?id=163177

Alianza PAIS is currently promoting new extractive sectors. The president recently announced that, "the era of mining has begun."⁵⁴ The Economist magazine reported that the potential of large-scale mining in Ecuador, estimated with figures provided by the mining companies themselves -- is, "more than 50 million tons of refined copper, more than 100 million ounces of gold and more than 300,000 tons of refined silver."⁵⁵ Several massive open pit mines have opened or will soon open in Ecuador. Open pit mines devastate land, water and the people that depend on those resources. Immense pits cover vast swaths of land, stripping them of their plants, soil, and entire ecosystems. The mining process releases contaminating particulate matter, which can lead to negative health outcomes. Toxic ammonium nitrate mixed with diesel (ANFO) is used as an explosive to extract the minerals. ANFO, along with heavy metals and radioactive substances that are released from the earth in the extraction process, seep into local waterways and compound health problems and ecosystem destruction. Roads built to transport minerals cause deforestation and general ecosystem disruption.⁵⁶ Displacement of local communities and resulting growth in urban poverty is characteristic of the open pit-mining sector, just like it is with the petroleum sector.

What is being called 'neo-extractive'⁵⁷ capital destined for Alianza PAIS' poverty reduction and economic growth programs has in this way marginalized rural *campesino*

http://internacional.elpais.com/internacional/2012/01/12/actualidad/1326385590_917311.html

⁵⁴ Paúl Mena Erazo, "Ecuador apuesta su crecimiento a la minería a gran escala," (Quito: El País Internacional, 12 de enero, 2012)

⁵⁵ "The man with the mighty microphone: Having mixed the good, the bad and the ugly during six years in power, Rafael Correa is heading for another term." February 9th, 2013

⁵⁶ "Impactos de la Minería en el País," Boletín Verde No. 67, (Quito, Acción Ecológica: 1999) <u>http://www.accionecologica.org/alerta-verde-el-boletin-de-ae/1278-67-impactos-de-la-mineria-en-el-pais</u>

⁵⁷ While traditional extractivism, experienced in the region for centuries, is characterized by imperial or neo-imperial powers getting hold of natural resources such as oil, gas or precious metals, Neoextractivism had been defined by professor Sebastian Matthes at the Universitat Kassel as, "...left

and indigenous populations. A plethora of Constitutional and originally revolutionary values have been thrown by the wayside to satisfy a singular goal of poverty reduction and development, which is realized more and more at the expense of the well-being of rural indigenous and *campesino* communities.

Rapid economic growth dependent on extractivism

To achieve rapid economic growth and in doing so satisfy objectives of Western economic development, compliance with the demands of the global capitalist marketplace is almost a necessity for Ecuador. Without a strong local production sector, Ecuador continues to depend on raw material extraction to generate income and satisfy global demand. Ecuador's dependence on the global marketplace is exacerbated by the fact that the country dollarized in 2000. Without a large industrial sector, the only way that dollars can enter Ecuador is if the country takes out loans and accrues debt, or profits from foreign-run natural resource extraction. The country's economic destiny, says president Correa, "depends to a great extent on whether the monetary policy of the U.S. coincides with our needs."⁵⁸ However, dependence on capital from extractive practices would be greatly reduced if the end goal were not Western-style industrialization. It is possible to achieve greater wellbeing for Ecuadorians while reducing extractivism, if policies truly take an alternative path to industrial growth and consumption.

Instead of following the alternative path to development that he advocated on the campaign trail, Rafael Correa presents extractivism as a transition tool that will allow the

leaning government using revenues from resource extraction to finance social programs for the poor and middle classes..." constantly accompanied by cripplingly negative effects such as environmental degradation and social costs.

⁵⁸ Rafael Correa, interview, "Rafael Correa: Ecuador's Path" (The New Left Review 77, September-October, 2012), <u>http://newleftreview.org/II/77/rafael-correa-ecuador-s-path</u>

country to rapidly develop, and to then ultimately leave extraction behind. Correa said to

his Assembly in 2012,

To depart from an extractivist economy and achieve development, we cannot simply close mines and oil wells. That would be social suicide that would probably turn us into a collection economy...we must mobilize these nonrenewable resources, like we are doing...to develop other sectors of the economy. Without *our* natural resources, we will not overcome poverty. Or, it will take us a lot more time. And a lot more suffering. Remember. Overcoming poverty is the exclusive priority...In the middle of this abundance of hidden treasures, inhabitants...are dying...we will not be beggars, sitting on sacks of gold.⁵⁹

Correa also said in an interview with the New Left Review,

It is said that on final balance, extractivism will prove to be positive; while it may be admitted that it could have negative social and environmental impacts,...[but] they have to be accepted in light of the general benefit for the whole nation. We govern for all Ecuadoreans, and we can't yield to the pressure of minorities, however justified their demands might seem.⁶⁰

President Correa appears to justify the detrimental effects of extractive activities on

nature and on local communities as necessary for the good of development. Correa

ignores the cycle of poverty that extractivism propels.

Hydroelectric's role in the model

President Correa's logic is that revenues from extractive activities will pay for

industrial development, poverty reduction, and clean energy development. 'Clean'

hydroelectric energy production is a centerpiece of this plan for an eventual departure

from extractivism. According to his government's long-term plan, hydroelectric

production will become a lucrative export industry: a large increase in hydroelectric

production will allow Ecuador to sell hydroelectricity to neighboring countries. Correa

said to his Assembly in 2012,

⁵⁹ "Ecuador lucha por los pueblo ancestrales: Correa," (Quito: teleSURtv, 10 de agosto, 2012), <u>http://www.youtube.com/watch?v=7qH-sit9TqI</u>

⁶⁰ Correa, Rafael, interview, "Ecuador's Path," September-October, 2012

In 2016, one of the most important structural changes in the history of our country's economy will be achieved. We will become exporters of clean energy. Thanks to the new hydroelectric projects, for the first time we will become an exporter of services, not just primary goods, thanks to the millions invested in hydroelectric projects, investments we can make from the surplus generated from the extractivist economy. *That* is how to depart from an extractivist economy. Not closing mines, not closing petroleum wells, not stopping natural gas extraction.⁶¹

Hydroelectric energy, he says, will also increase electricity production in Ecuador, allowing for industrial growth. The hydroelectric export industry, itself and the industrial development that increased hydroelectricity production will spur, will lessen Ecuador's economic dependence on oil drilling and mining.

President Correa does not recognize or address the fact that the 'clean' hydroelectric energy projects that he proposes to be the key to a post-extractive future are in reality neither socially nor environmentally sustainable, and will actually be utilized in part to sustain an intensified mining industry in the years to come. In essence, his solution to extractivism is extractive. Hydroelectric extractivism is given less attention than mining and petroleum drilling in academic scholarship and media coverage of extractivism in Ecuador. Hydroelectric projects do not often literally *extract* water from a specific location, so why do these types of projects fit into the extractivist model? They are extractivist because of the water privatization that accompanies hydroelectric development, which concentrates water and hydroelectric power in the hands of large often-extractive industries. Hydro projects are also extractive because they cause environmental and social harm from damming, flooding, or drying out vast areas, and because they are increasingly funded by predatory international capital.

While water is not *removed* per se, from a river, access to that water *is extracted* from local communities through concessions (privatization) with pernicious disregard for

⁶¹ "Ecuador lucha por los pueblo ancestrales: Correa," 2012

their survival. Via blatant violations of the laws that ban water privatization and guarantee the Human Right to Water for all Ecuadorians, more and more water is falling into the hands of large hydroelectric industries, while *campesinos* and indigenous populations suffer from loss of access to their lifeblood. Of the total water volume distributed through concessions by 2010 in Ecuador, 74.28 percent was given to the electric sector, through 147 concessions, while irrigation has received 19.65 percent of the water volume through 31,519 concessions (with the majority of volume conceded to agro-industrial exporters)⁶², and concessions for domestic use received only 1.22 percent of the water in the form of 21,281 concessions.⁶³ According to the law, every rural inhabitant of Ecuador must receive a concession to use water. Countless small farmers are denied concessions for irrigation and basic survival, while hydro projects and other large agricultural and industrial consumers rake in the water. The irrigation concessions that small farmers do receive are often considerably more expensive than irrigation concessions given to large-scale agro-exporters. In the Daule-Peripa watershed, for instance, large-scale agro-exporters pay \$1.84/hectare/year while small farmers pay \$120/hectare/year.⁶⁴

Privatization commonly harms subsistence-based communities the most, as their livelihoods are highly intertwined with and dependent upon natural resources, and their work does not generate enough disposable income to purchase the water resource taken from them. Hydroelectric companies often locate dams at the base of watersheds, because this is where the principal river in a watershed has the largest concentration of water. They deny local residents who live above their dam access to any water, so as to ensure

⁶² El agua, un derecho humano fundamental, p. 8

⁶³Ibid., p. 8

⁶⁴Ibid., p. 8

that the largest amount possible reaches their turbines at the base of the watershed.⁶⁵ The viability of farming for *campesino* and indigenous communities has diminished as a result of water privatization, and because their small farms are a major component of the national food market, Ecuador's in-country food production has also weakened significantly. The country has even begun to import some basic foods.⁶⁶ Clearly, neither the Human Right to Water nor Food Sovereignty is prioritized over industrial and agro-industrial concessions in Ecuador, as the constitution demands.

The cozy relationship of hydroelectric and mining

Where is this hydroelectricity going today, and who will the hydroelectricity plants of the future serve? A significant portion of generated hydroelectric energy produced is not being delivered to Ecuadorian citizens in need of electricity, but instead is going, and will go, to power extractive industries like mining. For example, in Macas, the Hidroabánico hydroelectric project is supplying electricity for copper mines in Alto Cenepa.⁶⁷ In Zamora-Chinchipe province, the Zamora hydroelectric project will generate 4,000 megawatts (MW) for mines owned by Corriente mining company.⁶⁸ A leader at Acción Ecológica explained that, "…the mining companies pay in advance for the energy that will be produced by dams."⁶⁹ David Bakter, chief economist and executive director of Earth Economics and advisor to the 2008 Constitutional Assembly explained that, "Ecuador cannot proceed with large-scale mining without implementing massive

⁶⁵ David Reyes, "Las represas como mecanismo de privatización del agua, apropiación de las tierras y venta del aire," (Abya-Yala: Quito, Agosto 2010), p. 209

⁶⁶ El agua, un derecho humano fundamental, p. 9

⁶⁷ Adriana Puruncajas, "La privatización del agua camina a pasos agigantados en el país," (Beirut: RedVoltaire, 3 de noviembre, 2006), <u>http://www.voltairenet.org/article143903.html</u>

⁶⁸ "Centrales cercanas a areas de explotación minera," mapa, (Quito: Acción Ecológica, 2011)

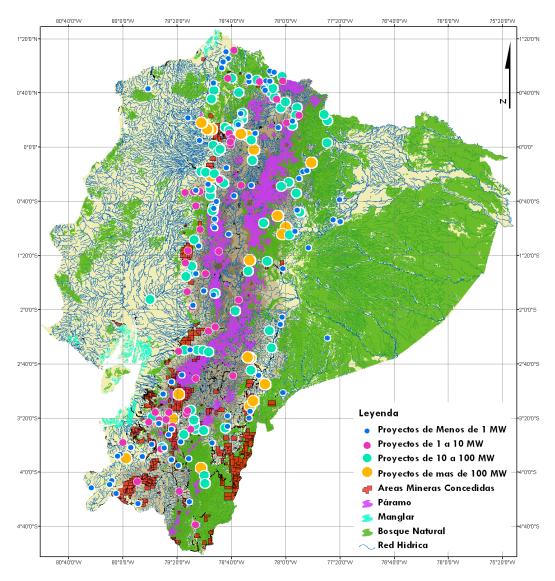
⁶⁹ Acción Ecológica employee, Meeting of Defenders of Water, San Luís de Pambil, filmed by Rachel Conrad, April, 2012

hydroelectric development....⁷⁷⁰ Batker has worked as a geologist in a mine, and understands the energy inputs needed for open pit mines. He explained that to remove the overburden (earth) in a mine in order to reach the ore beneath, a massive amount of energy input is needed. It would be prohibitively expensive and slow to remove the overburden with scoops and trucks powered by diesel or liquid fuels. Therefore, open pit mines utilize large equipment powered by *electricity*.⁷¹ Due to the need for electricity, a new era of large-scale mining in Ecuador necessitates a massive amount of cheap electricity, hence, the massive development of cheap hydroelectricity. As Gloria Chicaiza of Acción Ecológica explains in her paper on mining in Ecuador, "indigenous and *campesino* communities understand this relationship very well, and that is why they oppose open-pit mining *and* hydroelectric projects, which monopolize water and will increasingly be used mainly for mining extraction on the *campesino* and indigenous lands and territories."⁷² It is no coincidence that president Correa has announced a 'new era of mining' while simultaneously supporting a major boom in hydroelectricity production.

⁷⁰ David Batker, telephone interview, Rachel Conrad, April 30th, 2013

⁷¹ Ibid.,, 2013

⁷² Gloria Chicaiza, "El Enclave Minero de la Cordillera del Condor" (Acción Ecológica: Ecuador, 2010) p.35 <u>http://cdhal.org/sites/cdhal.org/files/doc/document/enclave-minero-cordillera-del-condor-enclave-minero-cordillera-del-condor.pdf</u>



Proyectos Hidroelectricos, Areas Mineras Concedidas, Red Hidrica del Ecuador , Bosques Naturales, Paramo y Manglar

Figure 3: shows the proximity of hydroelectric projects and conceded mining areas in Ecuador. The red areas are conceded mining areas, and the dots are all planned or constructed hydroelectric projects. More hydroelectric plants and mining operations have been planned since the creation of this map in 2010. Source: http://mapas.accionecologica.org/Agua/

Environmental Harm

Besides concentrating water resources in the hands of large extractive industries and denying access to millions of *campesinos* and indigenous peoples, many hydroelectric projects in Ecuador are extractive to the environments in which they are built. Hydroelectric projects fundamentally disrupt riparian and surrounding ecosystems and the lives of people who depend on these ecosystems. 'Run of the river' hydroelectric projects, which divert water from a river, run it through tightly enclosed pipelines and then through turbines, and return it to the river, are common in Ecuador. They regularly leave one to 20 kilometer stretches of river between the point of diversion and point of return nearly or completely dry, which greatly reduces or annihilates aquatic productivity and biodiversity not only in the dewatered section but often throughout the entire river. Migratory fish populations decline or disappear, and at many dam sites in Ecuador, local communities depend on that fish as a primary source of protein.⁷³

Risky business: climate change and foreign investment

While hydroelectric energy production is cheap in Ecuador in the short run, its production is structurally and financially risky and thus may not be lucrative for the country in the long run. The risk lies partly in the fact that projects are financed with expectations of positive financial returns, but they may turn out to be less lucrative than predicted due to the changing hydrologic cycle. Hydroelectric projects are environmentally unreliable given the predicted effects of climate changes on the hydrologic cycle. According to INAMHI, the Ecuadorian National Institute of Meteorology and Hydrology, "the energy sector in Ecuador is highly vulnerable to changes in the distribution of precipitation, due to its total dependence on the availability of water to supply reservoirs and energy production."⁷⁴ INHAMI reported in 2007 that Ecuador would completely lose at least four of its eight most important glaciers in the

⁷³ "Las represas como mecanismo de privatización del agua, apropiación de las tierras y venta del aire," p.
210

⁷⁴ "El Cambio Climático en el Ecuador" (ForoClima, INAMHI: Quito, 2013) <u>http://www.inamhi.gob.ec/foroclima/2013/Foros%20Nacionales/IV%20Foro/C.%20CLIMATICO%20</u> <u>EN%20EL%20ECUADOR%20%28MA.%20JOSE%20GALARZA%29.pdf</u>

next 10 to 20 years.⁷⁵ All of the country's glaciers have shrunk significantly and continue to shrink rapidly.⁷⁶ Glacial melt temporarily increases stream flows but then decreases flows immensely and for the long term. Glaciers also serve as a form of water storage.⁷⁷ However, with climate warming and shrinking glaciers this 'natural' storage dissipates. The Intergovernmental Panel on Climate Changes' 2007 Fourth Assessment Report Synthesis states that changes in precipitation patterns and the disappearance of glaciers in Ecuador, Bolivia, and Perú will notably affect the availability of water for human consumption, for farming, and for hydroelectric projects.⁷⁸ The risk in developing such a hydro-dominated energy portfolio is that there will not be enough water to generate the amount of electricity and revenues expected due to glacial melt and changes in precipitation.

Hydroelectric projects in Ecuador are also financially risky because they are mainly financed by foreign companies that provide foreign loans with high interest rates, which are likely to saddle the country with greater debt, especially if and when climate change renders projects less lucrative. The Coca Codo Sinclair dam, for example, is owned by the state of Ecuador, but will be constructed by the Chinese company Sinohydro, and its financing is provided in the form of a \$1.68 billion loan to Ecuador from the Chinese Eximbank. Matthew Terry of the Napo River Foundation warns that the Coca Codo project has hugely overestimated its energy producing capacity, and it will not be as lucrative as is touted. Thus, Coca-Codo will "ultimately saddle Ecuador with

⁷⁵ "Los glaciares en Ecuador se encogen: Riesgo para la soberanía alimentaria," Noticias del Cambio Climático (Edita Entrepueblos: 2007) <u>http://www.wrm.org.uy/actores/CCC/Boletin001.pdf</u>

⁷⁶ Ibid., 2007

 ⁷⁷ "Glaciers: Andean glaciers could disappear in upcoming years, study says," (Climate Wire: January, 2013)

⁷⁸ "13.4.3 Water Resources" Chapter 13, Latin America, IPCC 4th Assessment Report, (Geneva, Switzerland: 2007) section 13.4.3, <u>http://www.ipcc.ch/publications_and_data/ar4/wg2/en/ch13s13-4-3.html</u>

huge debts and unforeseen commitments to China" when it cannot produce the amount of energy its promoters have promised, and has to pay back a 15-year loan that carries a steep 6.9 percent interest rate.⁷⁹

China's Eximbank also agreed to finance two other large hydroelectric projects called Minas-San Francisco (270MW), and Sopladora (488MW) the second of which is burdened by a nine percent interest rate. Chinese financing is supporting three other projects as well.⁸⁰ Russia's Inter Rao UES is currently building the Toachi Pilatón project. Loans from Brazilian banks have supported several other hydroelectric projects. Others receive direct financing from international companies such as Coca Cola, KFC, La Fabril, Pronaca, and Oderbrecht while yet others are owned and funded by national companies with loans from international financial institutions like the United Nations Clean Development Mechanism.⁸¹ United States financing may join the pool soon. It is not unlikely that new foreign investments will culminate in the same path to debt that the Coca Codo Sinclair project now appears to be treading given many of the same factors.

Risks that climate change poses to the viability of hydroelectric energy production are exacerbated by the financial risks associated with predatory foreign capital. Combined with a consideration of the socially harmful nature of hydroelectric production, a strong case can be made that investments in a hydroelectric-dominated grid may become an undesired costly burden to *all* related parties in the near future.

⁷⁹ "Ecuador's most spectacular waterfall threatened by Chinese-funded hydroelectric project," (U.S.: International Rivers, March, 2013) <u>http://www.internationalrivers.org/resources/ecuador-s-most-spectacular-waterfall-threatened-by-chinese-funded-hydroelectric-project</u>

⁸⁰ "Ecuador busca exportar energía limpia," (Canal Azul 24: Quito) Agosto del 2013, <u>http://www.canalazul24.com/?p=19134</u>

⁸¹ El agua, un derecho humano fundamental, p. 209

Hydroelectric: a growing extractive industry

It is especially important to analyze the extractive character of hydroelectric generation in Ecuador because it continues to grow as an industry, and therefore negative effects felt today by many rural communities will likely be felt by thousands more in years ahead. Hydroelectric development, as mentioned above, is integral to the Alianza PAIS government's national electricity and development strategies. As of February, 2013, Ecuador was using 30 percent of its hydroelectric potential with around 60 hydroelectric plants, which is double the amount of capacity used six years before in 2007.⁸² The government has plans for rapid hydroelectric development in the next decade, as well. As of January, 2013, 62.7 percent of Ecuador's generated electricity came from hydropower and 37.3 percent came from fossil-fuel sources. By 2016, the Electric Corporation of Ecuador (CELEC) predicts that 93 percent of the country's electricity will be hydroelectric.⁸³ This means that the state will shut down the vast majority of its expensive fossil fuel generation plants and replace them with the new hydroelectric plants. It also means that Ecuador will be able to achieve their strategic goal of energy sovereignty by halting electricity imports from Colombia and Perú.

Hydroelectricity production will not stop when energy sovereignty is achieved. The Ecuadorian National Electricity Council (CONELEC), which is the regulator, planner, and controller of the electric sector, has included in their National Master Plan for Electrification, the construction of, "226 hydropower projects from 2012 to 2020," requiring an investment of approximately \$10.9 billion. These projects, they say, have the

⁸² "El potencial hidroeléctrico del Ecuador se duplicó en 6 años," Ministerio de Electricidad y Energía Renovable. 7 de febrero, 2013. <u>http://www.energia.gob.ec/el-potencial-hidroelectrico-del-ecuador-seduplico-en-6-anos/</u>. Sitio visitado el 20 de marzo, 2013.

⁸³ "Ecuador busca exportar energía limpia," (Canal Azul 24: Quito) Agosto del 2013, <u>http://www.canalazul24.com/?p=19134</u>

potential to produce 11,818 MW. With national demand currently at only 3,768 MW,⁸⁴ this enormous electricity surplus will serve national industrial growth and allow Ecuador to become a significant regional energy exporter to Perú, Chile, and Bolívia.

Such aggressive hydroelectric sector growth in Ecuador has been justified time and time again in the name of development. The technical manager of Hidrotambo S.A., a multinational hydroelectric company based in Ecuador, told me, "Without energy there is no development! A country that wants to develop has to continually produce more and more energy."⁸⁵ Thus far, hydroelectric development has occurred at the expense of thousands of rural Ecuadorian communities and national food sovereignty, and the industry has principally benefitted large extractive industries. Couldn't Ecuador instead earnestly pursue the alternatives to industrial development that have been presented in the country's Magna Carta?

Extractivism becoming less populist

Extractivism is growing and Correa's policies offer no clear way out. Furthermore, it is unclear how much of the income from extraction will continue to finance poverty reduction. The president has increasingly opened the doors to foreign countries and transnational companies that have the capital and technologies to extract petroleum, minerals, and water resources. Loan conditions from these countries and companies have been notably poor for Ecuador, but Correa has complied in his fervor to expand the extraction sector. Despite stating in 2009 that, "negotiating with China was

 ⁸⁴ "Opportunities in the Electric Sector, 2011," (Globaltrade.net, 2011) <u>http://www.globaltrade.net/f/market-research/text/Ecuador/Energy-Coke-Oil-Gas-Electricity-Opportunities-in-the-Electric-Sector.html</u>

⁸⁵ Interview with Ramiro Gordillo, Technical Manager, Hidrotambo S.A., Rachel Conrad, (Cumbayá, Ecuador: May 18, 2012)

worse than negotiating with the IMF^{**86} and claiming that contracts and loans from China would threaten Ecuador's sovereignty,⁸⁷ Correa has begun an aggressive process of accruing debt, above all to China. In the last months of 2010, Ecuador wrote bilateral agreements with China to receive large-scale low interest loans of around five billion dollars, and they have designated petroleum as a guarantee of debt payment.^{**88} Will this reoccurring neoliberal pattern allow world powers to benefit and leave Ecuador in the lurch once again?

Conflicts and resistance over extractive projects

The future of hydroelectric extractivism is not set in stone, however, because affected communities are organizing on a national scale to defend the wellbeing of the natural world to which humans belong. Affected communities and their allies have challenged 23 hydroelectric projects that are in some stage of being built or are finished,⁸⁹ and new challenges continue to arise. Protests have been met with rights violations, intimidation, violence, and criminalization. The Baba dam was met with mass protests from locals who were angry that the project's proponents had defied "almost all of the required procedures, including prior consultation of the local communities, all in the 'national interest.'⁹⁰ The project was built despite the protest, and many of the locals' homes and lands were flooded. Other highly contested projects whose protesters are experiencing repression are the Angamarca, Abánico, Chone, San José del Tambo and

⁸⁶ "Correa bewails China negotiations," (China: Taipei Times, December 7, 2009), http://www.taipeitimes.com/News/worldbiz/archives/2009/12/07/2003460330

 ⁸⁷ Pablo Davalos, Entrevista Por Verónica Gago y Diego Sztulwark, Pablo Dávalos: "El centro del problema no es el neoliberalismo, es el capitalismo." 29 de junio, 2011, http://www.pagina12.com.ar/diario/dialogos/21-165993-2011-04-11.html

⁸⁸Ibid., 2011

⁸⁹ "Las represas como mecanismo de privatización del agua, apropiación de las tierras y venta del aire," p. 212

⁸⁹ El agua, un derecho humano fundamental, p. 8

⁹⁰ Ibid., p. 19

Apaquí projects.⁹¹ To implement projects in the face of mounting resistance, the government and private companies have utilized repression and criminalization of social protest to quell the voices of angry communities. Those affected by hydroelectric extractivism are joining together with communities affected by petroleum extraction and mining, to challenge Alianza PAIS' extractivist agenda with greater force than can be mustered with challenges to single projects.



Figure 4: "Dams+Repression=Correa in Action.—signed, Río Grande" Photo by Rachel Conrad

Criminalization of dissidents, censorship, and violence

Leftist dissidents including communities affected by extractive projects,

CONAIE, the indigenous Patchakutic political party which is tied to CONAIE, the Democratic People's Movement (MDP), the principle public sector teachers unions, environmental NGOs, women's organizations, and numerous radical intellectuals, students, and trade union activists⁹² are increasingly distancing themselves from president Correa, due to his neo-extractivist policies, growing authoritarianism and general betrayal of the historical process driven by the popular social forces that elected him. These

⁹¹Alvarado Moreno, Paola Margarita, "Afectación Ambiental y Socioeconómica de la Construcción de una Central Hidroeléctrica en la Zona de Impacto: El Caso

del Proyecto Hidroeléctrico Angamarca", (Universidad San Francisco de Quito: Quito) Mayo de 2009, p. 61-62, <u>http://repositorio.usfq.edu.ec/bitstream/23000/702/1/91109.pdf</u>

⁹² James Petras, "Ecuador: Left-Center Political Regimes versus Radical Social Movements." (Global Research: Center for Research on Globalization) February 12, 2013.

groups have been protesting for recognition of their rights to water, the Good Way of Living, Food Sovereignty, and more. The Alianza PAIS government has responded by censoring, injuring, and criminalizing the social and political movements while belittling their plight and calling them 'childish' and 'extremists' who are getting in the way of the greater good. Correa and Alianza PAIS remain popular with a majority of the population and at this time it seems that Correa feels that he can discount those affected by extractive projects as an 'insignificant minority' that he does not need to "bring into his coalition as an electoral calculation to gain power."⁹³ Impelled by developmentalist populist desires that can only be easily realized by feeding the global supply chain with primary resources, the Ecuadorian government is increasingly using violent means to enforce the plunder of indigenous, *campesino*, and *montubio* lands. As a *Salon* exposé put it,

In recent years, the quickening arrival of drills and trenchers from China and Canada has provoked a militant resistance that unites the local indigenous and *campesino* populations. The stakes declared and the violence endured by the battle-scarred coalition is little known -- even in Ecuador, where Correa has made muscular use of state security forces in arresting activists and intimidating journalists who threaten his image as an ecologically minded man-of-the-people.⁹⁴

The criminalization of protest came close to home when, during my time at Acción Ecológica, several of the founders of the organization were dragged, hit, and detained for protesting an open pit gold mining contract with a Chinese company, outside of the Chinese Embassy. Alberto Acosta, 2013 presidential candidate, explained that, in an authoritarian manner, Correa has "proscribed the right to resistance." "Today," he said, "there are more than 200 popular leaders on court benches, accused of as much as 'sabotage' and 'terrorism,' under laws used in the times of oligarchic governments, in a

^{93 &}quot;Correa and Ecuador's Left: An Interview with Marc Becker" 2013

⁹⁴ Zaitchik, Alexander, "To Get to the Gold They Will Have to Kill Every One of Us: The most-storied warrior tribe in Ecuador prepares to fight as the government sells gold-laden land to China," (Salon, February 10, 2013).

country where there is no terrorism."⁹⁵ A November, 2012 Ecuadorian delegation to the United Nations also reported over 200 cases of criminalization of social protest in the country.⁹⁶ According to a 2012 report by Amnesty International, the government is increasingly, "clamping down on protests and using unfounded criminal proceedings against the leaders of indigenous and *campesino* organizations."⁹⁷

In 2009 and 2010, the failure of the authorities to properly consult indigenous peoples and *campesinos* before passing legislation on mining and water rights sparked a series of nationwide protests. On 20 January 2009, around, "12,000 people from Indigenous, environmentalist, *campesino* and water movements in eight provinces"⁹⁸ took part in what is now known as the "Day of Mobilization for Life," a national protest around water rights and the Water Law. One day earlier, President Correa had delivered a speech from the balcony of the Presidential Palace where he called those who were opposed to the law, "childish leftists" and tried to further delegitimize them by saying that only 'small groups' planned to demonstrate the following day."⁹⁹ Many of these 12,000 protesters were accused of terrorism and sabotage, and later with the criminal offence of blocking roads. Protestors were held in 'preventative detention,' some for weeks, and some were subsequently imprisoned while others were let off, or were ordered to present themselves to authorities every eight or 15 days for extended periods.¹⁰⁰ In September, 2009 and May, 2010, protests around the draft Water Law were accompanied by further criminalization of protest. Amnesty International reports that,

⁹⁵ "Entrevista a Alberto Acosta: La "revolución ciudadana", el modelo extractivista y las izquierdas críticas," Febrero, 2013

⁹⁶ Zhagui, Lizardo, "Cuestionan informe official ante Naciones Unidas Sobre Criminalización a Defensores de la Naturaleza," (Agencia Ecologista de Información: Tegantai. 15 de Noviembre, 2012).

⁹⁷ Ibid., p.19

⁹⁸ Ibid.,p.19

⁹⁹ Ibid., p.19

¹⁰⁰ Ibid.,2012

"Many of those who actively took part – and some who did not – subsequently faced charges and legal processes that appeared designed to prevent and punish legitimate protest and to silence those campaigning for the human rights of Indigenous and *campesino* communities."¹⁰¹

President Correa has kept a tight wrap on the media in his country, suing media outlets for thousands and even millions of dollars multiple times for making negative statements about him.¹⁰² As the Economist magazine opines, the media suppression is, "sure to put Mr. Correa's critics on notice that expressing their objections too forcefully could put them out of business or send them to jail."¹⁰³ The Inter-American Commission on Human Rights said Correa's judicial actions against the media could produce, "self-censorship and a notable chilling effect that impacts not only the individuals convicted but Ecuadorean society as a whole."¹⁰⁴ Where has the promised citizen participation and direct democracy of president Correa's Citizen's Revolution gone?

Not only are protestors criminalized and self-censored, they are also victims of violence committed by the National Police, the Armed Forces, and private security forces. In 2010, tear gas and helicopters were used against water law demonstrators to disperse a crowd blocking the bridge of the Rio Upán, "resulting in clashes that injured over 40 people, police officers as well as protesters. One indigenous teacher, Bosco Wisuma, was shot in the head by an unidentified gunman and died instantly."¹⁰⁵ Protestors against the Baba, Chone, and San José del Tambo dams¹⁰⁶ and copper mining

¹⁰¹ Ibid., p.7

¹⁰² "Freedom of Press in Ecuador: A Chill Descends," (Quito: The Economist, July, 2011) http://www.economist.com/blogs/americasview/2011/07/freedom-press-ecuador

¹⁰³ Ibid., 2011

¹⁰⁴ Ibid.,2011

¹⁰⁵ "So that no one can demand anything' criminalizing the right to protest in Ecuador?" p. 22

¹⁰⁶ Rachel Conrad, *Represados*, film documentary, (Youtube: June, 2012),

in Intag have also been repressed by national and private police and the Armed Forces in the past decade. There have been many other occasions of armed repression of protest.

Concrete alternatives

Presently, much of the advocacy for a post-extractivist agenda is loosely tied together under a political coalition called the Plurinational Unity of the Lefts (UP), which was formed in 2011. The coalition, which encompasses 10 political parties and social movements, proposes to construct a state in which *Sumak Kawsay* or *Buen Vivir* is not just rhetoric to veil Western development, but rather an alternative *to* development and a challenge to the notion of sustainable development. These social groups emphasize that their proposals would be realized if the 2008 Constitution were respected.

The UP has advocated concrete steps towards a post-extractivist reality, several of which I will outline here. To overcome dependence on extractive activities, the UP advocates the generation of a, "social and solidarity economy," one that is centered on values of cooperation, complementarity, mutual support, human rights and democratic principles (Art. 283 of the Constitution). To create such an economy, they propose policies to further redistribute wealth, empower small producers and cooperatives, and encourage sustainable practices. They propose to halt any new extractive ventures and cut back steadily on the existing ones, while simultaneously creating a social and solidarity economy. Taking these steps simultaneously would allow the country to maintain stability and wellbeing through robust local exchange while significantly cutting back on the extractive practices that currently sustain the economy.

The UP demands respect of the primacy of laws related to the functioning of natural systems over traditional economic objectives, and looks to support this primacy

http://www.youtube.com/watch?v=Y2DnL76BJY8&list=PLlQdGA3gyJbneIkc3ZdcCL3m_58-95X11

by rejecting present-day economic indicators like GDP, and instead adopting tools to measure *Buen Vivir*.¹⁰⁷ The UP also urgently advocates the realization of agrarian and water reform mandated by the Constitution in order to encourage small-scale, local, healthy, and culturally appropriate food production for the country (food sovereignty).

Social movements loosely allied with the UP are pushing for the adoption of a new water law, which, according to the Constitution, should have been signed by the end of 2009. The new water law focuses on water conservation, clean-up and quality improvement, locating underground water sources, and the prioritization of citizen's access to water for potable use as well as irrigation. This new law would even more explicitly ban the privatization of water. Article 3 of the draft Water Law states, "Water, in its transcendence for life, the economy, and the environment, cannot be an object of any commercial agreement involving the government, a multilateral entity, or *any foreign company*. Every form of water privatization is prohibited. *No form of appropriation* or individual or collective possession of water is permitted." (emphasis added) With the passage of the new Water Law, many hydroelectric ventures would become even more explicitly illegal, given that hydroelectric companies have appropriated water from existing human and irrigation use, and many of them are foreign companies.

To move towards independence from resource extraction and toward a solidarity economy, the UP is advocating a more progressive tax system, and stricter tax payment enforcement mechanisms so that the progressive taxation system can truly bear fruit. Currently, there is 40% tax-evasion in Ecuador.¹⁰⁸ With better enforcement, and therefore

¹⁰⁷Alberto Acosta, "Sólo imaginando otros mundos, se cambiará éste - Reflexiones sobre el Buen Vivir" (Universitá di Roma Sapienza, CIDES-UMSA: Italy, 2011)

¹⁰⁸ "Entrevista a Alberto Acosta: La "revolución ciudadana", el modelo extractivista y las izquierdas críticas," Febrero, 2013

greater tax revenue, natural resource extraction would become less of a necessary contributor to the state's budget. Small-scale local businesses would receive significant tax breaks as an additional support for a solidarity economy.

The UP proposes an overhaul of the banking sector, which would limit private banks' investments in the financial sector, instate lower interest rates, and strengthen small savings and credit cooperatives and community banks. They also advocate establishing government credit mechanisms for small and medium-farmers. Growth is not the ultimate goal for a social and solidarity economy: the goal is to live *well*, not to live *better*. The UP therefore looks to address the globalized consumerist culture by reducing imports of consumer goods, which will simultaneously increase demand for local lowimpact production.¹⁰⁹

To incentivize citizen support of small-scale producers, the UP also advocates increasing the purchasing power of the Human Development Bond with an increased payment whenever its beneficiaries purchase products from *campesinos*, local fishermen who use traditional methods, and traditional craft makers. As another way to support small-scale production, rural communities, and environmental sustainability, the UP advocates for state policies to foment the "rational and best use" of the country's cultural and biological wealth, for tourism. Tourism has the potential to grow significantly given the country's stunning ecosystems and cultural wealth. Tourism would be managed under principles of social equity and environmental sustainability, favoring small and medium tourist endeavors, and operations that benefit local communities and distance themselves from large oligopolistic tourism conglomerates. The UP points out that the country's

¹⁰⁹ "Programa de gobierno de la unidad plurinacional de las izquierdas," (esfuerzo colectivo: 14 de enero, 2013) <u>http://albertoacosta2013.com/plan/</u>

most promising alternative to extractive practices is a strong tourism industry that "can generate more employment and foreign currency gains than mining, or any other extractivist activity."¹¹⁰ As these concrete alternatives suggest, extractivism is not a necessity, a transition tool, or a justifiable evil 'for the greater good' as Correa and Alianza PAIS assert. There is a way to provide for and increase overall wellbeing in Ecuador without high-interest and "dirty" money and investments from extractivist endeavors.

Conclusion

President Correa continues to employ rhetoric from the progressive socioenvironmental ideals in the 2008 Constitution, while, as outlined above, in practice his politics have veered away from many of these ideals, instead centering on the very Western economic development paradigm that was challenged and rejected in the country's turn-of-the century 'refounding.' Eduardo Gudynas writes that, "the government has appropriated concepts that arose as concepts of radical change from civil society, and then has redefined those concepts in order to serve conventional development. The most striking case of this in Ecuador is with the Good Way of Living, which, in its original meanings was as much a criticism of conventional development as it was an articulation of post-socialist and post-capitalist alternative proposals."¹¹¹ When referring to gold and copper mining as well as petroleum extraction, president Correa said, "The country needs diamonds [a metaphor for all minable minerals] not as unusable necklaces, but to transform them into tractors, roads, high schools, hospitals...*to achieve*

¹¹⁰ Ibid., 2013

¹¹¹ Eduardo Gudnyas, "Alternativas al Desarrollo Después de la Elecciones en Ecuador" (Acción y Reacción: Marzo, 2013) <u>http://accionyreaccion.com/?p=565</u>

el Buen Vivir...^{*112}(emphasis added) . As ex-Constitutional Assemblywoman, Fernanda Vega put it, "Good Life (*Buen Vivir*) has been emptied of its content. It is being rewesternized in a 'lite edition,' which works to provide what is necessary for a modernization of 'national capitalism.^{***113} President Correa may wonder, how long will it be until the 'insignificant minority' opposing his extractive practices becomes too angry and too big to handle? How long until the state will be forced to sacrifice rapid economic development in order to truly effectuate the values, laws, and rights presented in the 2008 Constitution?

¹¹² "Ecuador lucha por los pueblo ancestrales: Correa," 2012

¹¹³ Fernanda Vega, "¿Tránsito civilizatorio o modernización capitalista?" (La Tendencia, FLACSO, Abril/Mayo del 2012), p. 148

Chapter 2: Water is Life for Us: The San José del Tambo Hydroelectric Project

Water is primordial in our lives. Water is *life for us.* --Farmer, San Pablo de Amalí, Bolívar, Ecuador, 2012

Seventy-two communities with a current population of 40 to 45 thousand people¹¹⁴ have for generations made their homes on the nutrient-rich Andean slopes in the Dulcepamba micro watershed in Ecuador. This bountiful land lies on the mid-western flanks of the Andes mountains, within the administrative districts (cantons) of Chillanes and San Miguel, in Ecuador's Bolívar Province. The vast majority of the local people dedicate themselves to small-scale agriculture, and an abundance of their fresh and mostly pesticide-free produce supplies both local and national markets in Ecuador.¹¹⁵ The mayor of Chillanes told me, "the region is known as the breadbasket of Ecuador. It is the paradise of Bolívar."¹¹⁶ Campesino families grow an amazing diversity of crops, including corn, beans, peas, wheat, barley, cabbage, cane sugar, tree tomatoes, blackberries, and much more in the upper elevations of the watershed, and organic cacao, oranges, tangerines, bananas, yuccas, papayas, noni, and many other fruits and vegetables as well as grasses for cattle in the lower elevations of the watershed. Crops are intermingled with each other and with the forest, forming a complex agro-ecosystem. The watershed that these *campesinos* inhabit spans several ecological zones: subtropical, cloud forest, and *páramo* (highlands) (from lowest to highest in elevation), so one will encounter different crops depending on the elevation. Most families have pigs, chickens, and ducks roaming freely about their lands, and some have sheep. Some of the land in the watershed is managed communally and has been for generations.

¹¹⁴ OFICIO Nro. 160 MV-0603, Instituto Nacional de Estadísticas y Censos-INEC, 6 de junio, 2006

¹¹⁵ David Reyes, interview, Rachel Conrad, electronic correspondence, November, 2012

¹¹⁶ Interview with Ramiro Trujillo, mayor of Cantón Chillanes, Bolívar, Rachel Conrad, April, 2012

The local farmers depend entirely on the watershed's rivers and tributaries for every aspect of their survival and wellbeing: for daily human use and to nurture the crops and animals that they depend on both for nourishment and for sale to Ecuadorian markets, providing them with a small income. Farmers in the lower part of the watershed use gravity and hoses to divert water from the many tributaries above their properties for everyday uses and for their animals. Farmers in the higher part regularly irrigate their crops through gravity-based irrigation systems. Everyone depends on the rivers' plentiful fish populations, which are one of their principal sources of protein.¹¹⁷ A local farmer told me, "...the children take their bait, catch their breakfast, their lunch...the river provides for our families here... The river is our sustenance. When we don't have money, we grab our nets. We cast them for a half an hour, and we have food to eat."¹¹⁸

The watershed's many streams and waterfalls empty into several principal rivers—the Dulcepamba River (28 miles long)¹¹⁹ and the Salunguirí river, which then leave the watershed and empty into the Babahoyo River. The Babahoyo River in turn feeds the Guayas River, the recipient of the majority of rivers in the western part of Ecuador,¹²⁰ and finally the accumulated water heads to the sea via the Gulf of Guayaquil. Water is abundant in the region, but deceivingly so. The water in the small waterfalls found around every bend in the dirt roads, the winding crystalline streams, and the torrential summertime flows racing downwards within the principal riverbeds are now

¹¹⁷ Interviews with 3 community members, San Pablo de Amalí, Rachel Conrad, April, 2012

 ¹¹⁸ Interview with a farmer from the region, San Pablo de Amalí, Bolívar, Rachel Conrad, April, 2012
 ¹¹⁹ "Ficha técnica del proyecto San José del Tambo," Estudio de Impacto Ambiental Definitivo de la Central San José del Tambo, (Quito: CONELEC, 2004) p.1

¹²⁰ Barrera M, Victor *et al*, "Manejo integrado de los recursos naturales para la agricultura de pequeña escala en la subcuenca del Rio Chimbo-Ecuador: Aprendizajes y enseñanzas," (Virginia: Virginia Tech University, 2008).

coveted by hungry eyes from around the world, and the magnificent liquid abundance that breathes life into plants, animals, and farmers alike may become a dream of the past.

The Hidrotambo Project

"There is no reason to wipe out a community with the army to support the livelihood of four greedy investors that are coming to take our wealth!" --Community member, San Pablo de Amalí, Ecuador, 2007

The seeds of what would become a profoundly destructive and extractive hydroelectric project were sown in 2002 by the Corporation for Energy Research (CIE). CIE is an Ecuadorian company dedicated to "basic and applied scientific research in the field of energy."¹²¹ The company invests in, plans, and develops (mostly renewable) energy projects. To obtain a guaranteed supply of water for the hydroelectric project they had envisioned, CIE solicited the Agency of Waters of Guaranda, part of what is now the National Secretariat of Water (SENAGUA), for a hydraulic concession for the waters of the Dulcepamba micro watershed (395km²), which encompasses the farming communities described above. The hydroelectric project would be built at the base of the Dulcepamba watershed where water flow is greatest, just below the confluence of the watershed's largest rivers—the Salunguiré and the Dulcepamba—so that the highest volume of water possible will pass through the company's turbines.

Project Design

CIE designed the project to be a "run-of-the river" dam. This type of dam involves a barrier built across the whole river that diverts water to one side, where it flows through a canal and enters a holding tank. Water then flows from the holding tank into tubing that heads downhill, and it reaches the turbines at a high velocity and in high

¹²¹ "Concesión Hidráulico para Hidrotambo S.A. para la Central Hidroeléctrica San José del Tambo," (Agencia de Aguas de Guaranda: 20 de noviembre, 2003)

volume. After running through the turbines, the water is returned to the river in the same quantity as it measured at the diversion point. Between the diversion and the point where water is returned to the river, a small ecological flow will be left in the riverbed, but that flow is not sufficient to serve the riparian ecosystem, nor is it accessible for human use. This type of dam does not require a reservoir. The distance between the diversion point and the point where water returns to the river is 2.7km¹²² according to Hidrotambo's Environmental Impact Study.

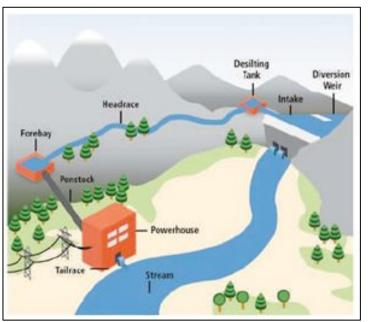
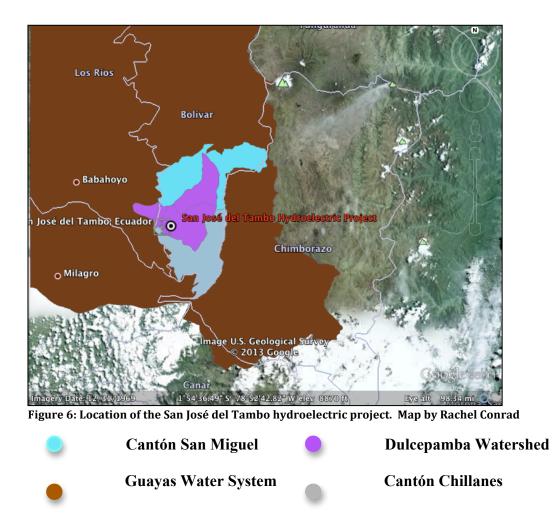


Figure 5: Model of a "run-of-the-river" hydro project (CIE's project does not have a desilting tank) Source: Energypedia

¹²² "Ficha técnica: Estudio de Impacto Ambiental Definitivo de la Central San José del Tambo," p. 1



The project is situated between the small town of San Pablo de Amalí and the larger town of San José del Tambo. The watershed it draws from is part of two cantons (similar to counties), Chillanes and San Miguel. By road, the project site is 40km east of Babahoyo City. See figure 2 for details.

A water grab

The National Secretariat of water, SENAGUA, provided CIE with the nonconsumptive right to a large portion of the Dulcepamba River's waters in November of 2003¹²³ with the understanding that the water would serve CIE for their hydroelectric

¹²³ "Proceso No. 1551-02," Concesión Hidráulica para la Central Hidroeléctrica San José del Tambo, (Agencia de Aguas de Guaranda: Noviembre, 2003)

project, and that their concession would last for 50 years. SENAGUA provided CIE with 1.196m³ per second of water between July and November, the dry season, and 5.40m³ per second between December and June, the wet season. CIE soon found three investment partners with whom to form a joint venture to forward their \$19,801,805.00¹²⁴ hydroelectric dream. Hidrotambo S.A. is the name given to this joint venture. The name honors their sole project--the San José del Tambo hydroelectric project. The company was formed with the idea that they might invest in similar projects in the future if the San José del Tambo project was a success. The investors quickly applied to transfer CIE's hydraulic concession from CIE to Hidrotambo S.A., and their application was granted in 2005.¹²⁵ At this time, they asked for and received an increase in the concession's wet season volume from 5.40m³ per second to 6.50m³ per second.¹²⁶ At this time it was also established that Hidrotambo would pay \$3,681.22 dollars per year¹²⁷ for the hydraulic concession, an almost negligible cost for Hidrotambo in comparison with the financial potential that ownership of much of the water of a small watershed implies, and an indication of SENAGUA's and Alianza PAIS' priority to advance hydroelectric development above supporting small-scale agriculture. Hidrotambo appropriated the water and solidified their concession without any prior informed consultation of the

¹²⁴ "Proyectos de Generación Eléctrica Paralizados," (Quito: CONELEC, Febrero 20, 2012) <u>http://www.conelec.gob.ec/images/documentos/doc_10120_Generación%20en%20Construcción%20Pa</u> <u>ralizados%20Febrero%202012.pdf</u>

 ¹²⁵ "Electrogen S.A., Ecoluz Canada Inc., Deal No. 2447609040," Comprehensive Transaction Report, Securities Data Company Worldwide Mergers & Acquisitions, (Thomson Information Services Inc. :August 15, 2012)

¹²⁶ David Reyes, "Informe sobre el proyecto de la central hidroeléctrica en San José del Tambo Canton Chillanes Provincia Bolívar," (Quito: Acción Ecológica, June, 2012).

¹²⁷ "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza" (Quito: Comisión de Paz y Verificación para el caso San Pablo de Amalí, Marzo, 2013) p. 4

communities of the watershed— violating the communities' constitutional right¹²⁸ to be consulted on any decision that could impact their environment.

There are three principal issues with the project. The first is that Hidrotambo will use their hydraulic concession to block farmers' access to water, the second is that diversion of water from the Dulcepamba river will decimate fish populations, and the third is that the project's construction has and will continue to disrupt private property. Resistance to the project has arisen as a result of these issues, and has been answered with military and police repression, widespread intimidation, and criminalization of protest. All of these issues will be discussed in depth below.

Concession will block farmers from water use

The hydraulic concession received will allow Hidrotambo S.A. to use, and block non-company use of, effectively all of the watershed's waters at certain times of the year. The company wants the largest amount of water possible to pass through their turbines located at the base of the watershed. It is important to understand that all of the tributaries in the Dulcepamba watershed are under concession, not only the principal river, because the tributaries feed the main river, guaranteeing its flow volume. To ensure that their guaranteed flow volume reaches the turbines, Hidrotambo will use their ownership rights to ban diversion of water (from tributaries that feed the main river or from the main river itself) by the 45,000 *campesinos* who live in communities that are positioned mostly at points above the dam. While some of the waters that farmers divert for irrigation and daily consumption and use would drain back to the Dulcepamba River after being utilized, a significant portion would evaporate or transpirate. Therefore, Hidrotambo will block farmers from diverting water to ensure maximum electricity production.

¹²⁸ Art. 398 of the 2008 Ecuadorian Constitution, Art. 57 Num. 7 of the 2008 Constitution

How did Hidrotambo gain control over so much water? They did so through a series of shady measurements. To ensure that the quantity of cubic meters assigned to the company does not exceed 100 percent of the Dulcepamba river's total flow volume, the National Secretariat of Water, SENAGUA, had needed to find out the whole river's flow volume and then decide on a percentage to give to Hidrotambo. The data and measurements used to determine the river's flow volume are completely unreliable, as will be shown below. While concrete data on the true flow volume of the river is unavailable, there are many reasons to believe that Hidrotambo used unreliable data to hugely over-estimate the whole river's flow volume. The reasons that an over-estimation is likely will also be discussed below. If the river's flow volume is, as is likely the case, much less than the company has stated, then the quantity of water that Hidrotambo has been assigned is a larger percentage of the river's flow volume (more than 100 percent).

The overestimation of the flow was due to manipulation of both historical hydrologic data and an on-site flow volume measurement that are of questionable validity. The on-site measurement to determine the whole flow volume of the Dulcepamba River was taken by the writers of the project's Environmental Impact Study (EIS) in 2006. The measurement was not a measurement at all, but instead was based on several almost blind guesses. The EIS itself admits that, "it was not possible to realize the flow volume calculation for the Dulcepamba River in the site where the dike (barrier) will be constructed, nor in any location upriver or downriver, due to the following difficulties: a torrential flow due to the river's approximately six percent gradient, [the

71

river's] depth, and inaccessibility to the site, etc."¹²⁹ The flow volume was, therefore, only visually estimated. The estimated flow volume on the day of inspection (a day in the wet season) was "between 16 and/or 18m³/second, more or less."¹³⁰

One-time on-site measurements are not representative of a river's flow volume across seasons and over decades. Therefore, this non- technical 'guestimation' was combined with historical data to determine an approximate flow volume of the river. Historical measurements were averaged from historical data from limnigraphic and limnimetric stations, otherwise known as water level gauge stations, which measure the flow volume of a river at regular intervals over time.



Figure 7: Location of water level gauge stations used to determine the Dulcepamba River's flow volume. Map by Rachel Conrad. Source: Google Maps. Imagery: USGS, 2013 (white area is cloud cover)

Dulcepamba Watershed

¹²⁹ Del Pozo, Tge H., Ing., "Informe Técnico No. AG.G-2003-33" del Informe del Perito y Notificación de Adjudicación de Agua," (Agencia de Aguas de Guaranda: 17 de febrero, 2003)

¹³⁰ "Estudio de Impacto Ambiental Definitivo de la Central San José del Tambo," (CONELEC: Septiembre, 2004)

As can be observed in Figure 3, all except for two of the water level gauge stations listed in the company's EIS as the data sources for the Dulcepamba River's flow volume are not even located in the same watershed as the Dulcepamba, much less located on the river in question. SENAGUA insists that by considering the flow volume of rivers in similar watersheds, they can estimate the flow volume of the Dulcepamba River. This is an extremely inaccurate way to measure a river's flow volume. Data from other rivers in far away watersheds cannot accurately determine the Dulcepamba River's flow volume. Even if data from the other watersheds could be used to determine the Dulcepamba watershed's flow volume, the data supplied is all outdated,¹³¹ and much of it does not cover long periods of time needed to understand longterm patterns of water levels. Why such a lack in data? Across Ecuador, up-to-date river flow volume data is lacking because when the Ecuadorian Institute of Electrification shut down in 1996, giving way to the establishment of CONELEC, gauge stations were abandoned, and the hydrometric network has still not been fully reestablished.¹³²

The only water level gauge station that is on the Dulcepamba River, the Chima limnigraphic station, has been out of commission since 1981. The data used for the Dulcepamba River's flow volume from the defunct Chima gauge station is from between December of 1968 and November of 1973.¹³³ The company's EIS states that data from the period 1965-1994 was compiled from these different (mostly distant) stations to determine the Dulcepamba River's flow volume. As Acción Ecológica affirms in their rejection of Hidrotambo's EIS, "it is well known that in the twelve years between 1994

¹³¹ David Reyes, "Fundamentos de rechazo, objeción y desconocimiento al: Estudio de Impacto Ambiental Definitivo de la Central San José del Tambo," (Acción Ecológica: Quito, Abril, 2007) p.5

 ¹³² Alfredo Mena Pachano, "La investigación y desarrollo de energías renovables en el Ecuador, análisis crítico," (Quito, Corporación para la Investigación Energética, 2006) p.1

¹³³ "Estudio de Impacto Ambiental Definitivo de la Central San José del Tambo," 2004

and 2006 [when the EIS was written], the [Dulcepamba] river's flow volume has drastically changed, with a definite decrease in water level."¹³⁴ The decrease in water level since 1973 when the Chima station closed is even greater.

From the on-site guestimation and the out-of date and out-of-site gauge station data, the EIS writers decided that the official *average* flow volume for the Dulcepamba River would be 14.3 meters cubed per second.¹³⁵ A flow volume <u>average</u> of 14m3/sec is actually irrelevant, because an average of the wet and dry season does not provide a picture of flow volumes in either season. What is important to discover is the wet season and the dry season flow volumes so as be sure not to over-allocate the river in either season. Wet and dry season flow volumes were not listed. Farmers in this region plant year-round, and therefore they depend on irrigation in the upper elevations year-round, but especially during the dry season.

Many farmers from the region, who know the river's patterns well as their daily lives are intertwined with it, have affirmed that the water level in the river and its many tributaries has decreased significantly in the past couple of decades¹³⁶ and is nowhere near 14.3m³ per second. Farmers as well as engineer David Reyes who has regularly traveled to the Dulcepamba watershed for several years, say that the flow volume in the wet season is between four to six cubic meters per second much of the time.¹³⁷ When Hidrotambo takes 6.50 cubic meters per second in the wet season and leaves 0.196 meters cubed per second as a required ecological flow, considering there is often four to six

¹³⁴ "Fundamentos de rechazo, objeción y desconocimiento al: Estudio de Impacto Ambiental Definitivo de la Central San José del Tambo," p.5

¹³⁵ "Ficha tecnica, Estudio de Impacto Ambiental Definitivo de la Central San José del Tambo," p. 1

¹³⁶ Interviews and discussions with many local farmers, meeting with the mayor of Chillanes and his staff, community meetings in San Pablo de Amalí, donated archival footage from 2006, 2007, and 2008.

¹³⁷ Email communications with Sr. David Reyes, Rachel Conrad, April, 2013

cubic meters per second in the river, the hydroelectric will have tied all of the watershed's waters, leaving nothing for 45,000 farmers, and Hidrotambo will likely not even have access to their 6.50 cubic meters/second concession. Acción Ecológica's report affirms that Hidrotambo's concession to 6.50 cubic meters per second of water in the wet season is "a quantity that existed in the river more than thirty years ago," but currently often does not exist.¹³⁸

The four to six cubic meters per second estimate is for an average wet season flow, and therefore there are times when the flow is higher that this range, and times when it is lower. Hidrotambo's dam does not have a storage reservoir to smooth out high and low flows, so in times of drought during the dry season, their dam will receive much less water than their intended 6.50 cubic meter flow volume. The concession does not stipulate a lower flow volume for the company during times of drought, thus in order to meet electricity generation goals, Hidrotambo will not cut back during droughts to allow for farmers to use needed water.

The same logic just outlined can likely apply to the company's dry season flow volume of 1.196 cubic meters per second as well. This quantity was considered to be a percentage of the dry season flow volume (that was not listed in the EIS), and it is likely to be the majority or even more than 100 percent of the dry season's flow volume, in part because Hidrotambo, whose project lacks a regulating reservoir, would likely have asked for the most water possible in the dry season in order to ensure that their turbines can continue to move, although at a much slower rate.

¹³⁸ Reyes, David. "Informe sobre el proyecto de la central hidroeléctrica en San José del Tambo Canton Chillanes Provincia Bolívar." (Quito: Acción Ecológica, June, 2012), bullet point 1

Hidrotambo will block thousands of farmers from water that is essential to their livelihoods. The quantity of a private concession that affects the livelihoods of 45,000 residents, was decided through speculation, that was likely influenced by a vested interest in determining high river flow volumes so as to obtain as much water as possible.

...Once they...build this dam, everything will dry out, even the plants will die...the fish...because water won't flow through the riverbed any longer. --Farmer from the region, Recinto Vainillas, April, 2012

Dismal Ecological Flow

The ecological flow that SENAGUA will require Hidrotambo to leave in the river after the diversion point is 196 liters/second. The ecological flow is reserved to provide for the ecological health of the waterway. Although it is not accessible for farmers to divert and directly use, the ecological flow, if it were sufficient, would have an important indirect effect on farmland located by the riverbanks. Water does not stay within the confines of the river's channel and banks; it spreads through capillary action into the earth surrounding the river, providing essential moisture for farming activities. The section of the river between the diversion point and the point where water is returned to the river is lined with farmer's crops that thrive in the moist soils. Even if the full ecological flow remains in the river, the amount of water is not enough to serve the local ecosystem or to moisten surrounding soils for farmers.

The 196 liters per second ecological flow is a miniscule amount of water to cover the Dulcepamba's riverbed and moisten surrounding soils. As engineer and environmentalist David Reyes stated, the ecological flow will equal, "mere centimeters on the riverbed at certain times of year."¹³⁹ Hidrotambo's EIS cites a study that found that 22.08 liters per second is an acceptable minimum flow to maintain fish and invertebrate

¹³⁹ David Reyes, Interview, Acción Ecológica offices, Quito, Ecuador, Rachel Conrad, December, 2012.

species. As a great favor, Hidrotambo goes above and beyond the supposedly acceptable minimal flow, and sets aside an environmental flow of 196 liters per second for the Dulcepamba River. When closely examined, this quantity is not such a great favor. In the Dulcepamba River, which is 130 feet wide, 22.08 liters would leave a barely visible 0.05 cm layer of moisture on the riverbed.¹⁴⁰ The 196-liter per second ecological flow provided by Hidrotambo will leave a similarly tiny 0.35cm layer on the riverbed.¹⁴¹ We can only imagine a fish trying to swim in water that does not even reach its belly.

As mentioned above, locals rely on the Dulcepamba River for protein-rich food. Fish stocks will be severely affected by the project. Fish may get stuck behind the 8.2 foot high¹⁴² wall that stretches 131.2 feet across the entire river, and even if they do get over the wall, they will not be able to survive in the almost dry riverbed that will stretch 2.7 kilometers¹⁴³ between the point of water diversion and the point of return.

Irrigation today, and future needs for water

For the communities in the watershed, a loss of access to water for irrigation, animals, and everyday use has dire consequences today, and likely intensified consequences in the next 50 plus years. As described in CONELEC's report on the agency's visit to San Pablo de Amalí and the surrounding area, "the [inhabitants of the] involved areas are clearly agriculturalists, cattle raisers and fish farmers, which means that local water supply is fundamental for these activities and for their subsistence...there is widespread fear [in the watershed] about access to water, as it is a fundamental element needed for the growth and production of crops. The crops are consumed and also sold,

¹⁴⁰ "Fundamentos de rechazo, objeción y desconocimiento al: Estudio de Impacto Ambiental Definitivo de la Central San José del Tambo," p. 9

¹⁴¹ Ibid., p. 9

 ¹⁴² "Ficha tecnica, Estudio de Impacto Ambiental Definitivo de la Central San José del Tambo," p. 1
 ¹⁴³ Ibid., p.1

providing economic resources that permit [the locals] to subsist....¹⁴⁴ Inhabitants of the upper watershed receive much less rainfall than inhabitants of the lower watershed. The San Pablo de Atenas meteorlogical station, located at the highest elevation in the watershed, receives only 1,280 mm/year of rainfall compared to the San José del Tambo meteorological station at the base of the watershed, which receives 2,415 mm of rain per year, almost twice as much.¹⁴⁵ The low rainfall levels in the upper part of the watershed means that farmers have to irrigate, especially in the dry season.¹⁴⁶ Farmers near the stretch of river that will be dried out by the project's water diversion will likely need to irrigate as well when the project is complete, due to the desiccation of their soils.

Farmers in the lower part of the watershed whose land is removed from the stretch of river that will be dried out will likely not need to irrigate right away when the dam is complete, because sufficient moisture from condensation is available in present day conditions. It is likely, though, that within the 50 plus years of the concession's duration, irrigation will become a necessity in the lower elevations of the watershed as well. This is because of climate change's effect on the hydrologic cycle. According to the Territorial Zoning Plan (PDOT) of Cantón Chillanes for the period 2012 to 2022, "alarming climatic phenomena like: frosts, <u>droughts</u>, winds, harsh rain patterns, washouts and large landslides, are becoming more and more evident, frequent, and damaging to local agriculture, the local economy and even to local survival."¹⁴⁷ Patterns of climate change already at play will likely advance in the next 50 years, making the hydrologic cycle

¹⁴⁴ Walter Alecón, "Informe Visita San Pablo de Amalí y Sectores Aledaños," Oficio No. DE-07-0613, (CONELEC: 4 de marzo, 2007)

¹⁴⁵ "Estudio de Impacto Ambiental Definitivo de la Central San José del Tambo," 2004

 ¹⁴⁶ Visit to the upper part of the watershed, interviews with local farmers, Rachel Conrad, January, 2013.
 ¹⁴⁷ Esteban Cevallos, "Plan de Desarrollo y Ordenamiento Territorial (PDOT)," (Chillanes, Gobierno Autónomo Descentralizado Municipal del Cantón Chillanes, 2012)

increasingly unpredictable, and making irrigation necessary as a reliable water source for the farming sector. Irrigation will thus likely become a necessity for those who formerly relied on cloud/mist condensation and moist soils, and the widespread water privatization for Hidrotambo's dam will render this necessity unrealizable.

A beguiling tale

The technical manager of Hidrotambo wove a deceiving and contradictory tale for me about the effect of the concession on farmers' water use and the extent that farmers in the region irrigate. He began by denying that there will be any negative effect on farmers' water use due to their hydroelectric project. He tried to distract from the privatization with a somewhat logical sounding but deceiving argument: He said,

Electricity generation doesn't mean consumption of water. It simply means the use of water to generate electricity. The water is taken at one point in the river, and it returns to the river some distance down from the point where it was taken, with the same volume that was taken. The consumption of water for the hydroelectric project is, thus, *zero*. As there is no consumption, there is no effect on the water the people can use.¹⁴⁸

Mr. Gordillo was apparently using a lie that many hydroelectric developers in Ecuador use in justifying their projects.¹⁴⁹ He steered me to the idea that the project does not take net water away from the river and is therefore not consumption, while hiding the fact that most of the water above the project site will be off limits due to Hidrotambo's privatization. Later in our discussions, Mr. Gordillo contradicted himself and admitted that the water in their concession would be off limits to locals, though he falsely claimed that some of the water had also been assigned to agriculture.

¹⁴⁸ Ramiro Gordillo, Technical Manager of Hidrotambo S.A., interview, Rachel Conrad, Cumbaya, Ecuador, May 18th, 2012

¹⁴⁹ David Reyes, interview, Rachel Conrad, Quito, Ecuador, December, 2012.

When I asked Mr. Gordillo whether people in the watershed irrigate, he denied that people irrigate and further stated, once again, that there would be no negative effects for agriculture. He explained that,

[The Dulcepamba] is a river that comes down through a canyon in the mountain... to irrigate, [the local farmers] need pump systems, because the water is positioned at the bottom of the canyon. The people there don't use pump systems. So, [the river's] use for irrigation for agriculture is pretty limited...so we think that negative effects on this kind of agricultural activities is practically null with this hydroelectric project.¹⁵⁰

Mr. Gordillo conveniently avoided mentioning that even if not many people use the main river for irrigation, they use tributaries to irrigate by way of gravity. Every property I visited diverted water from tributaries above them through hoses to supply them for cooking, cleaning, showering, drinking water for themselves and their livestock, and in the upper part of the watershed, for irrigation. The company will block most of this.

I asked Mr. Gordillo how it could be that so many farmers live in the watershed and none of them irrigate, and only then did he admit that the farmers do irrigate. He said, "...the only way that they irrigate is from gravity, without using pumps...they use the water from tributaries that are higher in elevation than the riverbed."¹⁵¹ Knowing full well from research and visits to the watershed that Mr. Gordillo's company would block farmers above their dam in the watershed from diverting water from the tributaries, I asked Mr. Gordillo, "would there be less water for your hydroelectric project if farmers continue to use water from the tributaries?" He said, "probably this would happen." I asked him what his company would do about farmers' water use, and he then finally admitted in part that the watershed's water is indeed off limits to locals due to Hidrotambo's concession. He said, "There is a national water authority that regulates

¹⁵⁰ Ramiro Gordillo, interview, May 18th, 2012

¹⁵¹ Ibid., May, 2012

water use concessions. So, the hydroelectric has a specific volume of water that this authority will allow it to utilize. Thus, it is guaranteed that, that, they [the farmers] won't dry out the river and leave the hydroelectric without water....¹⁵²

There it was. He finally admitted that his company has appropriated local farmers' needed water resources. However, he then went on to warp the picture once again by making it appear that SENAGUA (the water authority he mentioned) has assigned' a volume of water to community members, too, in some sort of 'compromise.' He said, "...There has to be a compromise between agriculture and hydroelectricity generation... each one of us has to stick to the volume of water that the authorities have assigned us."¹⁵³ There are a few farmers who have received concessions to water in the watershed, but they add up to less than 500 liters (half of a cubic meter)¹⁵⁴, which equals about 2.6 standard sized bathtubs, filled to the brim. There is no *compromise* here between agriculture and hydroelectricity.

Finally, I asked Mr. Gordillo if there is enough water to share between farmers and the hydroelectric, and he replied confidently, "At the moment, of course! There is excess." Then, with much less confidence the second time, "At the moment, yes."¹⁵⁵ In 2007, at a community meeting with the provincial governor, a farmer expressed her anger at the true implications of Hidrotambo's concession. She said, "they've awarded [Hidrotambo] the waters, all the way from the headwaters. They're the owners of our water, Mrs. Governor! And what do our people live from in the highlands? *Irrigating their crops during the summer!* And what will the famous Hidrotambo do? During the

¹⁵²Ibid., May, 2012

¹⁵³Ibid., May, 2012

¹⁵⁴ "Inventario participativo de recursos hídricos" (Quito: SENAGUA) http://www.agua.gob.ec/inventarioparticipativo-de-los-recursos-hidricos/

¹⁵⁵ Ramiro Gordillo, interview, May 18th, 2012

dry season, they're going to say: Don't touch even a drop of my water! Because I need water to move my turbines! And, where will the displaced go? Will they be cast to the four winds?"¹⁵⁶ There is not enough water to share.

To redeem his project's beneficial nature after admitting that it would deny thousands of farmers water, Hidrotambo's manager perverted the idea of food sovereignty to mean growth in agro-industry, and thereby claimed that the hydro project was a necessity for "food sovereignty" and development. He said, "...to achieve food sovereignty, we need to generate a strong agricultural/animal production industry. This industry needs energy. If there is no energy, this industry cannot develop...in [the San José del Tambo] region, agro-industry doesn't exist. There are small landowners, and small pieces of land that produce what they can." I asked him, "but isn't that more sustainable than large production?" and he replied, "No. In the industrialized countries, agriculture is an industry...if it's not industry, it doesn't work...that industry needs energy...without energy there is no development...a country that cannot increase its energy consumption will not develop...."¹⁵⁷

"Food sovereignty" as it is defined in the Ecuadorian Constitution supports smallscale farming that is not energy intensive, and supports the very communities hurt by the logic of industrial development at all costs. Much of the agro-industry in Ecuador produces crops for export (bananas, coffee, etc) and therefore does not contribute whatsoever to food sovereignty. Mr. Gordillo perverted the concept of food sovereignty to justify an assault on the viability of *true* food sovereignty in the breadbasket of the country, all in the name of western-style industrial development.

 ¹⁵⁶ Local farmer, meeting with the governor of Bolívar, archival footage, February 28, 2007.
 ¹⁵⁷ Interview with Ramiro Gordillo, May 18th, 2012

Farmers already blocked from water use

Even though the dam is not yet operating and thus the company does not need any water yet, Hidrotambo and their government backers are exercising their power by blocking access to the Dulcepamba River. As early as 2008, people from both the upper and lower parts of the watershed complained of being blocked from water use by "Hidrotambo and their representatives."¹⁵⁸ A local farmer told the Universo newspaper in November 2012, "We can't even go to the river anymore to collect water, to fish, to bathe ourselves, because the policemen pursue us from the other side of the river."¹⁵⁹ Other testimonies revealed that company officials and SENAGUA officials have also blocked farmers' access to the water recently.¹⁶⁰

In a further illustration of SENAGUA's disregard for local farmers, local individuals and groups have applied for small water use concessions since Hidrotambo received their concession, and have either been denied or left waiting. A small primary school on the southern side of the river located below the dam applied for a concession from SENAGUA for a small quantity of water for their school's basic needs. The school would not take any water away from Hidrotambo's turbines, as it is located below the point where water is returned to the river, but even so they were denied access to water. Another local farmer applied for a concession to water and has not yet heard back from SENAGUA.¹⁶¹ We can only hope that he will be granted his basic right.

¹⁵⁸ "Amparo constitucional, proyecto San José del Tambo," (esfuerzo colectivo: 2007), p. 4

¹⁵⁹ "Construcción de hidroeléctrica enfrenta a comuneros y empresa," (San Pablo de Amalí, Bolivar: El Universo, 25 de noviembre, 2012), http://www.eluniverso.com/2012/11/25/1/1447/construccionhidroelectrica-enfrenta-comuneros-empresa.html

¹⁶⁰ "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza," p.17

¹⁶¹ Interview with local farmer, San Pablo de Amalí, Bolívar, Ecuador, Rachel Conrad, January, 2013

Water is not a 'resource.' Water is not a 'commodity.' Water is the universal source of life. --Campesinos struggling to protect their land and water from plunder by transnational mining companies in Intag, Ecuador

A local farmer exclaimed to me when I asked him about the concession, "...they tell us that nothing will happen, that the water is going to stay right where it is, that they're not going to take anything, but this is bogus propaganda. They don't even want to give us... the adjudications of water for irrigation. And...to benefit a handful of investors, thousands of people will suffer."¹⁶² The deeply intertwined social and environmental impacts of this hydraulic concession are far-reaching, long lasting, and glaringly unjust. An environmental psychologist from Acción Ecológica commented, "The scarcity of water provoked by this type of project can make a community's farming activities unviable, and it can even cause a community to be forced to leave their lands. It is not a surprise then, that the defense of water is implicitly tied to defense of land, territory, cultural identity, and life itself."¹⁶³ The locals, whose uses legally trump hydroelectric water use, have been denied water concessions for themselves, and virtually all of the water has been given to a last priority user.

A trend of displacement and urban poverty

The Dulcepamba farmers operate mainly outside of the monetary system, and thus even if Hidrotambo's privatized water were made available to them through sale from the company, farmers could not pay for it. As a community leader said in a meeting with the Ministry of Defense, "We need the water to survive! If we don't work the land, what will we eat? We don't have any other lifeline. We don't earn a salary, we don't have

¹⁶² Interview with a farmer from the region, San Pablo de Amalí, Bolívar, Rachel Conrad, April, 2012.

¹⁶³ "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza," p. 14

insurance...what will we live off of if and when they build this stupid project?¹⁶⁴ The mayor of Chillanes expanded on the vicious cycle created by water privatization. He said, "the businessmen, they'll keep benefitting from the water free of cost, for many years, and we will have to cross our arms and…let Hidrotambo utilize the water and-and see how they create hydroelectric energy and sell it back to us. In this cycle, how are we going to pay for energy if our fields don't produce anymore? How can we pay for electricity service if our families won't even be able to *live* here anymore?"¹⁶⁵

Hidrotambo and their government supporters have set the Dulcepamba watershed communities on a path towards urbanization that many rural *campesino* and indigenous communities are treading due to the commodification of nature in the name of development. The Permanent Working Group on Alternatives to Development pointed out in a 2012 report that, "The consequences of this capitalist assault on the last lands on Earth where people still subsist outside of the logic of unlimited accumulation, is felt the most in the peripheral regions of the world. It is there where the *campesinos* that have been expelled from their lands, now destined for more "profitable" uses, pass directly to urban poverty or indigence. And it is there where an increase in the price of basic foods translates immediately to hunger."¹⁶⁶ A rural lifestyle in which basic needs are satisfied becomes an urban lifestyle where the water and land that provides for those basic needs is nowhere to be found.

Millionaire business people

Who is behind this water grab, and do *they* need the water as much as the Dulcepamba watershed's farmers? A local farmer exclaimed to the governor of Bolívar in

¹⁶⁴ Farmer from the region, meeting with the Ministry of Defense, archival footage, 2007

 ¹⁶⁵ Interview with Ramiro Trujillo, mayor of Cantón Chillanes, Rachel Conrad, Bolívar, April, 2012
 ¹⁶⁶ "Más Allá del Desarrollo," Noviembre, 2011

a meeting, "Unfortunately, we are in a world where the small farmers, just because they are farmers, have always been stepped on. And all for money... for these millionaire businessmen. To the disadvantage of-of thousands of farmers."¹⁶⁷ The first of Hidrotambo's so-called millionaire investors is a multinational company based in Spain called Ingehydro S.L., subsidiary to Ingeteam Corporation S.A. Ingeteam S.A. is an electrical components company that specializes in electrical engineering and the development of electrical equipment, motors, generators and frequency converters, serving the energy, industrial, marine, and rail traction sectors across the globe. Ingehydro contributes ten percent to the group's hydroelectric investment.¹⁶⁸ The second investor is Ecoluz Canada Inc., a Canadian electric services company that provides investment services to an abundance of ventures. At the time when Hidrotambo formed, Ecoluz Canada Inc. was actually Electrogen S.A., an Ecuadorian owner and operator of multiple hydroelectric plants. Ecoluz Canada Inc. gained a majority interest in Electrogen S.A., on August 15, 2012.¹⁶⁹ Ecoluz Canada contributes 30 percent of Hidrotambo's hydroelectric investment. Interestingly, in an April 2012 interview, Hidrotambo's technical manager did not include Electrogen when he listed the investors, but he did say that one of the investors is, "an importer of General Motors cars...."¹⁷⁰ It is still a mystery who this car importer is, and what their share is in the company. The third known investor in this joint venture is Plasticaucho Industrial S.A., a large, private Ecuadorian rubber and plastics footwear manufacturing company, the largest company in Ecuador in

 ¹⁶⁷ Local farmer, meeting with the governor of Bolívar, donated archival footage, February 28, 2007.
 ¹⁶⁸ Reyes, David. "Informe sobre el proyecto de la central hidroeléctrica en San José del Tambo Canton

Chillanes Provincia Bolívar." (Quito: Acción Ecológica, June, 2012), p. 9

¹⁶⁹ "Electrogen S.A., Ecoluz Canada Inc., Deal No. 2447609040," Securities Data Company Worldwide Mergers & Acquisitions - Comprehensive Transaction Report, (Thomson Information Services Inc. August 15, 2012)

¹⁷⁰ Interview with Ramiro Gordillo, May 18th, 2012

their field and an exporter of footwear to Colombia and Peru.¹⁷¹ Plasticaucho contributes 30 percent of the joint venture's investments. These 'millionaires' all have established businesses with diverse investments and ventures. None of the companies or their executives will put their very survival and wellbeing at risk if they lose access to the Dulcepamba watershed's waters, so why should they profit from the water while thousands who truly depend on the water struggle to avoid misery given the loss of their lifeblood?

Violations of procedures and rights

A project which is so fundamentally unfair and abhorrent to the basic values of the Ecuadorean constitution could only gain approval and proceed through a host of violations of law, the Ecuadorean Constitution, and basic human rights, and that certainly has been the case here. Helped along by government officials who are thoroughly supportive of hydroelectric energy projects, Hidrotambo has run crashing through the procedural process for their project, cutting corners all the way without even a finger wagging from the responsible agencies. The company's hydroelectric contract, their EIS and environmental license, and their prior consultation process are replete with procedural violations and illegalities, and they have violated many laws and rights.

To start with, in the hydroelectric contract, Hidrotambo and CONELEC used population data on the Dulcepamba watershed from the 1990 census instead of the most updated census (2006), and in doing so the watershed's true population and therefore the extent of human impacts from the San José del Tambo project were minimized. The contract states that the watershed has a population density of approximately 35

¹⁷¹ Information from company website, and interview with Ramiro Gordillo, May 18th, 2012.

inhabitants per square kilometer, which translates to a total of 13,825 inhabitants.¹⁷² As cited above, the true population as confirmed by the National Institute of Statistics and the Census (INEC)¹⁷³, is approximately 45,000. By omitting 31,000 people from consideration as affected residents, Hidrotambo and CONELEC minimized the serious human impact of their project.

Illegal EIS and Environmental License

Hidrotambo received their environmental license¹⁷⁴ on September 30th, 2005, signaling the approval of their Environmental Impact Study and the go-ahead to construct and operate their project. They received a second environmental license on February 8th of 2006¹⁷⁵ for the transmission line that will interconnect the San José del Tambo project with the CEDEGE electric substation, owned by EMELRIOS S. A. Hidrotambo's environmental impact study seems to describe an entirely different project from what is actually being constructed. But despite countless discrepancies, the document was welcomed into the fold of shady Environmental Impact Studies with open arms.

To highlight a few of the inaccuracies, the EIS talks about the company doing, "a light clipping of the groundcover" but they have already left a much more violent mark on the landscape. They have deforested large areas and butchered other trees. Also, they have entered private property with heavy machinery, flattening crops. They have left behind cement pillars and holes made by dynamite that was exploded on these properties

¹⁷² "Amparo constitucional, proyecto San José del Tambo," (comuneros de San Pablo de Amalí) 2007, p. 4

¹⁷³ OFICIO Nro. 160 MV-0603, (Quito: Instituto Nacional de Estadísticas y Censos-INEC, 6 de junio, 2006)

 ¹⁷⁴ Espinoza Díaz *et al*, "Registro oficial 4 de noviembre, 2005," Aprobación de la Licensia Ambiental No. 004/005 del hidroeléctrico San josé del Tambo, (Tribunal Constitucional: 4 de noviembre, 2005)
 <u>http://www.derechoecuador.com/index2.php?option=com_content&do_pdf=1&id=1598#anchor243382</u>

¹⁷⁵ Javier Astudillo Farah, "Aprobación de la Licensia Ambiental No. 001/06, para la construcción y operación del Proyecto de L/T que interconectará la futura Central Hidroeléctrica San José del Tambo con la S/E CEDEGE en operación de EMELRIOS S. A.," (Tribunal Constitucional: 2006) http://www.derechoecuador.com/index2.php?option=com_content&do_pdf=1&id=480#anchor406363

without permission from the property owners or related authorities, and without the necessary transit easement and other legal documents.¹⁷⁶Additionally, the Study affirms that it will use the flows of the Dulcepamba River, but it does not recognize that the Dulcepamba is formed by the waters of the Salungiri and Limón del Carmen rivers, which in turn collect water from all of the tributaries in the upper watershed. This convenient omission steers the reader away from the company's appropriation of an entire watershed's waters. Regarding wildlife, the EIS is similarly ridiculous in its assertions. As mentioned above in the discussion of the ecological flow, fish will not survive the almost dry riverbed past the diversion. These are just some of the EIS's convenient omissions and inaccuracies.

Prior consultation process violated

As part of the Environmental Impact Study, Hidrotambo is obligated to consult the local community, and then to report on the citizen participation that occurred. Hidrotambo advertised meetings with the affected communities in the newspapers, as the law demands, but instead of advertising in newspapers that locals might read (La Tribuna of San José del Tambo, El Vocero de Bolívar, el Amigo del Hogar)¹⁷⁷, they put their announcements in newspapers¹⁷⁸ that locals had never heard of¹⁷⁹—which belong to other provinces. Therefore, very few people got word of the prior consultation meeting, and those who did attend were residents of distant communities that will not be affected by the dam.¹⁸⁰ A local community member who did attend alleges that these non-local

¹⁷⁶ "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza," p.9

¹⁷⁷ Farmers from the region, meeting with the Ministry of Defense, archival footage, 2007

¹⁷⁸ The Bugle of Los Ríos province, the Andes newspaper of Riobamba province.

¹⁷⁹ "Amparo constitucional, proyecto San José del Tambo, 2007," p. 11

¹⁸⁰ "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza," p. 5

attendees were brought in by the company to create the appearance of citizen participation.¹⁸¹

Overall, in this meeting and at other times, Hidrotambo received signatures approving the project from less that half a percent the population of the area.¹⁸² Signatures at the meeting were obtained underhandedly by Hidrotambo officials telling attendees that they were "just taking attendance,"¹⁸³ not that they were asking for approval for their project. None of the signatures came from the most affected community, San Pablo de Amalí. Additionally, neither representatives from CONELEC nor the Ministry of the Environment attended the prior consultation meeting, as the law requires.¹⁸⁴ A frustrated farmer from San Pablo de Amalí laid out the problem at a meeting with the Ministry of Defense: "They want to build the dam here without anyone even realizing what's happening! If there isn't citizen participation, this project will be a failure. I'm telling you. This [lack of citizen participation] is the worst error, what costs us so much suffering, so much fighting, and even the lives of many people."¹⁸⁵ Prior consultation is a right in the Ecuadorian Constitution, one that has been repeatedly violated by the Alianza PAIS government as they fervently implement their extractivist agenda on *campesino* and indigenous lands.

Land expropriation and private property violations

Many families' properties and crops have been and/or will be damaged by actual incursion on their land by the San José del Tambo project. Machinery has gone 164 feet

¹⁸¹ Local farmer, community meeting with Ministry of Defense, donated footage, San Pablo de Amalí, 2007

¹⁸² "Represados documentary with English subtitles," Acción Ecológica, (Quito: Youtube, minute 00:43 of part 3, donated archival footage, 2007) ¹⁸³ Amparo constitucional, proyecto San José del Tambo, 2007, p. 10

¹⁸⁴ Ibid., p. 10

¹⁸⁵ Farmer from the region, meeting with the Ministry of Defense, archival footage, 2007

into one resident's land to dig a canal that will bring water from the river to the holding tank.¹⁸⁶ The tubing for the project will pass directly through the houses of two other individuals, and as such their houses will likely be razed. Neither of these two residents have even been included in legal expropriation proceedings, and another individual whose land has been affected is not included either.¹⁸⁷ There has been no fair process for any of the affected individuals. Hidrotambo has applied for the expropriation of some of these properties in court. If the land is indeed expropriated by the court, it will be declared land for "public utility" to benefit the project.¹⁸⁸ To date none of the judicial proceedings have been concluded. Despite not having any authority to enter property that still belongs to the local farmers, Hidrotambo's construction crews have trespassed many times with heavy machinery and caused significant damage to farmers' crops and lands.

As with other aspects of the project, the company has spread misinformation- in this case, in order to advance the expropriations. Hidrotambo offered \$50,000 in compensation to a man who, after accepting, found out the offer referred to sucres rather than dollars.¹⁸⁹ Sucres became obsolete in Ecuador in 2000 when dollarization occurred, as described in Chapter 1. They have no value. A community member expressed his anger at such injustice: "We haven't sold anything to them…and they haven't even paid us a cent, and…they come through with their machines, breaking-toppling, plots of cacao, orange and plantain groves, everything, to the ground."¹⁹⁰

¹⁸⁶ "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza," p. 9

¹⁸⁷ Ibid., p. 9

¹⁸⁸ Ibid., p. 9

¹⁸⁹ Interview with farmer from the region, Rachel Conrad, January 17th, 2013.

¹⁹⁰ Interview with farmer from the region, Recinto Vainillas, Rachel Conrad, April, 2012.

Army incursion, Human Rights violations

The most visible and cruel manifestations of the San José del Tambo project are violent human rights violations perpetrated by the Ecuadorian Army and the National Police. In October 2006, Hidrotambo contracted the Army Corps of Engineers of Ecuador, a government agency, which is part of the army, to construct their hydroelectric project, for \$4,383,730.52.¹⁹¹ Little did the locals know that the *army* part of this institution would be expressed to a much greater extent than the *engineer* part. From late 2006 until 2008, people living in and around San Pablo de Amalí experienced multiple forms of military repression on a regular basis, experiences that left them with deep physical and psychological scars. When the Army Corps of Engineers found that locals would not simply stand there and let their livelihoods slip away, they called in their colleagues in the Armed Forces to strong-arm the peaceful protestors. The soldiers violated private property rights and other basic human rights as they barged into houses, tear-gassed, shot, physically violated, and robbed the locals.

A community leader expressed, "They certainly came in with all of the necessary force, including bombarding the houses of the community leaders, the school, everyone here...they would come here to the community every other afternoon."¹⁹² Another individual said at a meeting in 2007, "They even enter into our houses!...they enter into the houses to assault us ... They assaulted me!"¹⁹³ Another man explained to a Ministry of Defense official in 2007, "...50 soldiers, they entered my brother's house. I have the police report here...then, they start to-to intimidate my brother, to put the gun right here

¹⁹¹ "Contrato de construcción: Hidrotambo S.A. y el Cuerpo de Ingenieros de Ejército," (Quito: 16 de octubre, 2006)

¹⁹² Interview with farmer from the region, San Pablo de Amalí, Rachel Conrad, April, 2012

¹⁹³ Community member, donated archival footage, San Pablo de Amalí, 2007

[pointing to his neck].... And they even throw tear gas cans inside the house. And, they take \$7,000.¹⁹⁴ They take this money, and also, they grab an 18-month-old child, also in the police report, and they hit him. They scratch his face, and then they go and throw him in a mud puddle in front of my other brother's house."¹⁹⁵

The Armed Forces used tear gas and rubber bullets multiple times when confronted by community members who demanded that they leave the area. Two men were shot in the face and they each lost vision in one eye. One of those men also lost a kidney. Others suffered serious bullet wounds as well. The Ecuadorian Institute for Children and Families (INNFA) came to San Pablo de Amalí to investigate the military aggression and reported that the Armed Forces would set up checkpoints where local children picked up a bus to school, and they would search the children for weapons. The report stated that the children are, "blocked by the soldiers who search all of the people there, including the little girls, and they touch all parts of their bodies…"¹⁹⁶ Alfredo Palacio was president at the time the Armed Forces were present in the Dulcepamba watershed, and as commander-in chief, he is complicit in the repressive acts.

¹⁹⁴ "Agresión en la propiedad privada," Informe de la policiá nacional del Ecuador, servicio rural, Bolívar no. 11, (Bolívar: Policía Nacional, 23 de enero, 2006)

¹⁹⁵ Community member, donated archival footage, San Pablo de Amalí, 2007

¹⁹⁶ "Represados documentary with English subtitles" (Quito: Acción Ecológica, Youtube, part 3, donated archival footage, 2007)



Figure 4-"Campesinos organized in defense of our lands-NO to extractivism! San Pablo de Amalí, Photo source: el Universo, 2012

Resistance period 1: 2003 to 2008

From the beginning, when residents of the watershed learned that a hydroelectric dam would block their water use and dry out part of their river, they worked tirelessly to organize peaceful resistance to the project. Resistance has been primarily carried out by the community of San Pablo de Amalí, although people from other communities in the watershed are actively involved in direct action, court cases, and political advocacy as well. This is partly because the effects of the project are the most visually and physically obvious to people living in or around San Pablo de Amalí. The project construction is either constantly visible or actually on their land, and the majority of project-related violence has been committed against community members from San Pablo. While residents of the watershed have been blocked from water use, this is not a common occasion (as there is no reason for Hidrotambo to block use before completing their project) and therefore the effects of the watershed know that their water is at risk, they do not feel as much urgency to act as San Pablo residents feel.

Direct action

Direct action, combined with political advocacy, resulted in temporary successes

for the Dulcepamba *campesinos*, although only after several years of periodic physical and psychological assault. Resistance at every step of the way prevented the project construction from advancing. In February of 2006, the first company contracted by Hidrotambo to build the project, Coandes, tried to start construction, and was blocked by one hundred campesinos who prevented their machinery from entering the project site.¹⁹⁷ One amazingly inspiring woman has been instrumental in spreading information to the rest of the watershed about the issue, and due to her organizing efforts, a determined group of women from throughout the watershed created a network of communication to organize road blockages whenever the construction company tried to enter their lands.¹⁹⁸ She told me with tears in her eyes, "I was the person who united these 72 communities. I am proud to have done so.... [This situation] definitely saddens me...because they have really made us suffer..."¹⁹⁹ Numerous community members were subjected to judicial proceedings for their peaceful resistance.²⁰⁰

After continued opposition from the communities, construction activities were suspended in April of the same year.²⁰¹ Hopes that threats to their lands and water access were over were dashed in October of 2006 when, as described above, Hidrotambo employed an intimidating and violent contractor, the Army Corps of Engineers, to push the project through in the face of opposition. Continued participation in direct action took immense bravery on the part of local *campesinos*, because, after the Army Corps became involved, protest was answered with aggression (described above) and further judicial

¹⁹⁷ "Afectación Ambiental y Socioeconómica de la Construcción de una Central Hidroeléctrica en la Zona de Impacto:El Caso del Proyecto Hidroeléctrico Angamarca" p. 62

¹⁹⁸ Interview with farmer from the region, Recinto Vainillas, Rachel Conrad, April, 2012

¹⁹⁹ Interview with local farmer, San José del Tambo, Rachel Conrad, video recording, April 2013

²⁰⁰ "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza", p. 6

²⁰¹ Ibid., p. 4

actions. Several leaders were temporarily detained for "rebellion and other crimes.²⁰²"

With hopes of greater success in court than they had had through direct action, community members brought several cases against the company. In November of 2004, they brought the first case to Court 20 in Quito against the project. The case was lost. Those affected next took their case to the Constitutional Court in 2007, where they used the writ of *amparo*²⁰³ (a remedy for the protection of constitutional rights) to address rights violated by the project proponents. They lost in Constitutional court as well.

After repeated losses in Court, community members filed complaints with government ministries, and met with many public officials—including the mayor of Bolívar, representatives from the Ministry of Defense, the Public Defender, the Ecuadorian Institute for Children and Families (INNFA), and others, to advocated for recognition of their violated rights.

A long-awaited victory?

Despite losses in court, the affected communities' constant opposition and political advocacy was finally heard and acted upon, just around the time that president Correa came into office and the country was 're-founded' with Constitutionally expressed values of greater community participation in local resource management. It seemed that the new articulation of values, rights, and participation in Ecuador would pave the way to a more peaceful future in the Dulcepamba watershed. The Armed Forces were expelled from the region, by the Ministry of Defense in 2008²⁰⁴ and the San José del Tambo project was suspended that same year. Hidrotambo asked CONELEC to end their

²⁰² Ibid., p. 6

²⁰³ Art. 95 of the 1998 Constitution, in agreement with article 46 of the Organic Law of Constitutional Control

²⁰⁴ "Construcción de hidroeléctrica enfrenta a comuneros y empresa," 2012

hydroelectric generation contract, as they were not going to continue construction. The Chamber of Commerce of Quito carried out an arbitration and mediation process, which finally resulted in the annulment of the contract in 2011.²⁰⁵ The National Constituent Assembly granted general amnesty in March and July of 2008 to those people in the watershed who had been criminalized,²⁰⁶ in order "...to rectify judicial errors and unjust sanctions faced by innocent and politically persecuted people..." who had protested against projects and state policies that affect natural resources.²⁰⁷ Peace returned to the quiet towns that dot the Dulcepamba watershed. For several years, farmers, animals, rivers, crops, and the forest coexisted once again in an ancestral equilibrium. Annual *Carnaval* celebrations during those years were celebrated with extra spirit and unity, and a CD was released that featured songs of resistance to Hidrotambo, placing the Dulcepamba communities' struggles in the annals of history to inspire others to resist.

Back with no shame

However, a land with so much flowing water could not just be left alone by a company blind to the ultimate importance of human dignity. Hidrotambo's proponents in Quito pulled themselves up once again, motivated by visions of income, progress, development, and success borne on the wind from the distant Dulcepamba watershed. They returned to their friendly government *compadres* in 2012 to ask for another chance to exploit the watershed. The newly articulated values of the Ecuadorian state were fundamentally betrayed when, on March 8, 2012,²⁰⁸ Hidrotambo's hydroelectric contract

²⁰⁵ "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza" p.6

²⁰⁶ Ibid., p. 6

²⁰⁷ "So that no one can demand anything' criminalizing the right to protest in Ecuador?," 2012

²⁰⁸ Trujillo, Manuel *et al.* "Petición al Sr. presidente constitucional de la república Rafael Correa Delgado. (Quito: 9 de Julio, 2012).

was renewed by CONELEC, and the company wasted no time in hiring a new construction company and finding new men with guns to play the repressive role that the Army had played before. Their new constructor is Daimi Ecuador, S.A., and their new men with guns are the National Police. The new timeline for operation, laid out in the contract, leaves a year for construction of the civil works (between June, 2012 and July, 2013), designates July 1st, 2013 for the start of electromechanical equipment tests, and October 1st, 2013 as the initiation of commercial operation.²⁰⁹

Paradoxically, President Correa actually campaigned on the promise that local communities must be the ultimate decisionmakers when it comes to the San José del Tambo project. In a visit to San Pablo de Amalí in 2006 while on the campaign trail, he planted hope in the hearts of worried community members.

I just want to say to you all one final thing..." he said, "...about this Hidrotambo issue. About the problem of hydraulic concessions. First, water will not be privatized! Water is a public resource, for all Ecuadorians, above all for the poorest people: the *campesinos*. Our government will never allow water to be privatized! And with respect to the Hidrotambo dam, we believe, ladies and gentlemen, that those who should approve these kinds of projects are *you*, the affected communities. Because it is *you* who have the right to approve a hydroelectric plant, on your land, affecting your environment. If you say NO! to this project, the project will not be built! If you give it your approval because you are the ones in control, well, in that case it'll be built.²¹⁰

But since his time on the campaign trail, President Correa's views on water privatization

and his openness to true citizen participation have diminished greatly.

Illegal contract renewal and prior consultation

As stated in a report written by the Ecuadorian NGO Acción Ecológica in June of

2012, the new contract is, in fact, illegal. A new and different contract like the one that

²⁰⁹ "Contrato de Permiso de Generación para la Construcción, Instalación y Operación del Proyecto Hidroeléctrico San José del Tambo", (CONELEC: 8 de marzo del 2012)

²¹⁰ Campaign speech, president Rafael Correa, archived footage, 2006

Hidrotambo has received is not permitted unless accompanied by an updated environmental impact study and a new environmental license. Neither of these documents have been updated or revised.²¹¹ Also, the company requested that their 50-year hydroelectric generation contract be extended to "the duration of the useful life of the project."²¹² The law clearly states that a contract of this length is illegal, and even so their request was granted by CONELEC. Regulation number 003-11, issued by CONELEC and approved on April 14th, 2011, states that 5 to 10 MW private hydroelectric generation projects can receive a generation contract for anywhere between 23 and 40 years, but no longer.²¹³ Furthermore, all of the illegalities and inaccuracies related with the previous contract still apply.

In addition to acquiring an illegal contract, Hidrotambo once again violated the prior consultation process. The company returned to the watershed on March 24th, 2012 to carry out a required community consultation in which they would present their new contract. The director of CONELEC, other public institutions, as well as representatives from Hidrotambo,²¹⁴ arrived with police protection and a group of approximately 30 individuals from far away communities. Just as was done years before, the individuals from distant communities participated in the meeting to create an appearance of 'socialization' and citizen participation. No residents of San Pablo de Amalí participated.

²¹¹ David Reyes, "Informe sobre el proyecto de la central hidroeléctrica en San José del Tambo Canton Chillanes Provincia Bolívar," Junio, 2012, bullet point 3 y "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza," p. 8

²¹² "Informe sobre el proyecto de la central hidroeléctrica en San José del Tambo Canton Chillanes Provincia Bolívar," p.15

²¹³ "Contrato de Permiso de Generación para la Construcción, Instalación y Operación del Proyecto Hidroeléctrico San José del Tambo," 2012

²¹⁴ Besides representatives from CONELEC and Hidrotambo, Paola Marola Andino Alarcón, Head of the Environmental Unit, Ángel Olivio Bayas Durán, Governor of Bolívar province, Javier Horacio Valencia Zambrano, Community Subsecretary of Water, and Daniel Orlando Villacís Chávez, Leader of CZ-Guaranda Senagua (source: Comisión de Paz y Verificación para el caso San Pablo de Amalí, 2013)

The people from other communities began to yell offensive words at the San Pablo de Amalí locals, accompanied by cheers in favor of the company.²¹⁵ President Correa has not responded to letters explaining these blatant violations of prior consultation.

Violations of the Constitution and international human rights over nine years

At every step of the way, Hidrotambo has taken national and international Human Rights as well as the Rights of Nature to be akin to recommendations which they can chose not to follow, and their resulting misconduct has for the most part been allowed or even rewarded by an increasingly extractivist-minded government. Beyond the Right to Prior Consultation, the company has allegedly violated Property Rights, the Human Right to Water, the Rights of Nature, and the Right to Soberanía Alimentaria and *Sumak Kawsay*, among others.

Water law

Hidrotambo has violated Ecuadorian water law in several ways over the past nine years. When the project was initiated (in 2003), water law in Ecuador was decidedly different than it is today, as is described in Chapter 1. The privatization of water was not explicitly banned as it is today, and the pursuit Food Sovereignty was not included in water use priorities. At that time, the project proponents should have complied with the priorities set out by the Water Law (established in 1972), which gives first priority to human use.²¹⁶ They were also obligated to comply with requirements related to the water concession, including prior consultation. As outlined above, neither were priority use

²¹⁵ Letter sent on May 4th, 2012 by the San Pablo de Amalí community organization to president Rafael Correa.

²¹⁶ "Título IV: De los Usos de Aguas y Prelación, Artículo 34," Ley de Aguas: Número 369, General Guillermo Rodrigo Lara, Presidente de la República, http://www.oas.org/usde/environmentlaw/waterlaw/documents/Ecuador-Ley_de_Agua_(1972).pdf p. 49

rights for water respected nor was prior consultation carried out.

New contract, new laws

Parties involved in the newly initiated San José del Tambo project (Hidrotambo S.A., CONELEC, SENAGUA, and the Ministry of the Environment), must conform to the new laws, rights, and procedures established with the 'refounding' of Ecuador in 2008. By signing a new contract in 2012, both Hidrotambo and CONELEC have the responsibility to comply with the new water laws in which the privatization of water *is* explicitly banned and communities like those in the Dulcepamba watershed, part of "the bread basket of Ecuador," are especially prioritized for water use rights because they contribute significantly to the country's Food Sovereignty.

The San José del Tambo hydroelectric project has been justified as essential on the path to energy sovereignty—a strategic goal laid out in the 2008 constitution that is seen as a building block for development. However, the idea inherent in this justification, that energy sovereignty somehow trumps the human right to water, is fundamentally flawed when the constitution is viewed as a whole. Article 15 of the 2008 Constitution states, after discussing clean energy projects, that, "Energy sovereignty shall not be achieved to the detriment of food sovereignty nor shall it affect the right to water."²¹⁷An industrial project that will block access to water for 72 farming communities in my opinion infringes upon both food sovereignty *and* the right to water.

Sumak Kawsay

Hidrotambo must also now respect the right to *Sumak Kawsay* and the Rights of Nature, something the company has utterly failed to go given the extractive nature of their project. Have residents of San Pablo de Amalí been able to live the Good Way of

²¹⁷ "Constitution of 2008 in English: The Constitution of the Republic of Ecuador," 2011.

Living, in harmony with Nature, in the face of repression, community division, and the appropriation of their life-sustaining resources? And what about the many other communities in the watershed, especially those located in the upper watershed who will lose access to water for drinking, cooking, cleaning, animals, and irrigation that is all essential to their wellbeing? Will Nature be respected in a dried out river where aquatic creatures will meet their graves, or on lands deforested for the construction of a canal, tubing, a machine house, access roads, and more? Hidrotambo has ignored the rearticulation of values and laws held in the new Constitution, as have their government supporters, in the Dulcepamba watershed and across the country.

Police Bullying, Criminalization, and Intimidation

Since the 2012 renewal of Hidrotambo's contract, the marriage between company and state has become more pronounced, in contrast to the earlier period immediately following the new Constitution when the government expelled the Army, supported the cancellation of the project, and granted amnesty to those who had participated in protests. Now, while the project is still officially a private venture, National Police and government officials have actively supported the project through violence, intimidation and the use of divisive tactics. Since March of 2012, the National Police have accompanied constructors, company employees, and government officials onto community lands as they attempt to advance the building process. The police have arbitrarily detained farmers, committed physical aggression, and made threats to locals, all in order to protect the company's aspirations. The judiciary has also upheld the company/state interests in hydroelectric power by supporting the illegitimate criminalization of even more project opponents than were criminalized in the years of the

102

Army Corps and the first contract. Government officials have intimidated locals and spread rumors and discord among the communities. Effective protest has been stifled by this tightening and perverse public-private alliance: anyone who speaks their mind is either ignored, injured, criminalized, or a combination of the three.

On July 11th, 2012, Hidrotambo's machinery together with dozens of police entered the construction areas, destroying several families' crops and threatening locals. The machinery approached a 72-year-old woman's house with the intention of flattening her home in order to clear the way for tubing. The woman stood in front of the machinery to save her home. A group of police surrounded her and her handicapped son, and began to hurt them both, physically and with verbal intimidation.²¹⁸ Several community members ran to help them, which led to confrontations with the police that left several people injured. One 14-year old boy filmed the incident on his cell phone, and was injured and yelled at by the policemen for doing so.²¹⁹ Heavy machinery destroyed part of the elderly woman's crops on this day as well.²²⁰

The community reported this and other police aggressions to the Inspector General of the National Police,²²¹ and the Ministry of the Interior ordered the National Police headquarters to send a commission to investigate. Hours before the commission arrived, a group of police and company workers traversed the watershed and physically and verbally attacked its residents. When people defended themselves, the police used tear gas on them, and continued on to destroy a bridge that the community uses to cross

²¹⁸ "FECAB-BRUNARI: Noticias principales Bolívar," (Fecabrunari: 22 agosto, 2012)

²¹⁹ "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza," p. 9

²²⁰ "Construcción de hidroeléctrica enfrenta a comuneros y empresa," 2012

²²¹ "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza," Anexo 9

the Dulcepamba River.²²² When the investigative commission finally arrived, community members from the whole watershed were gathered to describe the aggressions, but the commission only interviewed Hidrotambo's personnel. Locals were instead asked to give their testimonies to a *policeman* of all people, and to an assemblyman who is part of the Alianza PAIS party. The Mayor of Chillanes wanted to provide testimony as well, as he had observed some of the police aggression, but was not given the chance at this time either.²²³ No redress for police brutality has resulted from the commission's investigation.

On October 29th, 2012, "people associated with the company" beat up and threatened the 24-year old son of a community leader.²²⁴ Anger and fear mounted from such hostile encounters and the incursion of construction machinery. In response, on October 30th 2012, 200 locals and allies from social movements joined together, a result of weeks of planning, in San Pablo de Amalí to realize a symbolic takeover of the machine camp. Their protest boasted an unprecedented amount of participants, but in the end, no concrete advances were made against this powerful public-private alliance. Not only did the company refuse to comply with community requests, but they also responded to the protest with violence, intimidation, and detentions.

During the protest, the Universo national newspaper reported that, "One of the inhabitants affirms that at the most recent protest, they were dragged along the ground by a group of five policemen. 'My parents, who are seniors, tried to help me, but the police just hit them, too,' they said."²²⁵ On the day after the machine camp occupation, FECAB-BRUNARI, the Federation of Campesino Organizations of Bolívar, reports that the police

²²² Ibid., p.10 ²²³ Ibid., p. 11

²²⁴ Ibid., Anexo 12

²²⁵ "Construcción de hidroeléctrica enfrenta a comuneros y empresa," 2012

continued to exhibit arrogance and to abuse the locals.²²⁶ At 8:00am that next morning, approximately 200 police, together with Hidrotambo employees, invaded the house of the president of the San Pablo de Amalí community as well as other houses in the community. A police lieutenant began to intimidate and frighten children, women, and elders, and he then invaded the house of a community member (without any kind of warrant) and stole a cartridge clip from the resident that is used for hunting. This same lieutenant had agreed the day before, in front of the entire community occupying the machine camp, that he would not commit any act of repression against the community.²²⁷

Exposed in the same report by FECAB-BRUNARI, around 9:30am that morning, the Teleamazonas TV channel arrived (a rare occurrence for a news outlet to make the long trek to San Pablo de Amalí), and community members were eager to expose the blatant injustices that had just occurred. When community members arrived to give interviews, two policemen dragged and hit one woman, and detained two senior citizens on orders given by the same unscrupulous police lieutenant. The two were handcuffed, and forced to lie face down for three hours before they were released.²²⁸ To add insult to injury, Hidrotambo employees and policemen went on to invade another community member's property on the same day, without any legal permission.

Since October, the company has entered the watershed many times, accompanied by police, to aggressively advance their project.²²⁹ In mid-April of 2013, the machinery entered the property of the same elderly woman (discussed above) and toppled her crops,

²²⁶ "Otra vez prepotencia y abuso policial en San Pablo de Amalí," (Bolívar: Federación de Organizaciones Campesinas de Bolívar: FECAB-BRUNARI, 31 de Octubre de 2012)

²²⁷ "Otra vez prepotencia y abuso policial en San Pablo de Amalí," 31 de Octubre, 2012

²²⁸ "Ibid., octubre, 2012

²²⁹ "Revocan prisión preventativa en el juicio de terrorism contra dirigentes en el caso San Pablo de Amalí," (Bolívar: Fecab-Brunari, 5 de diciembre de 2012)

as well her outhouse and chicken coop.²³⁰ Conversations with this woman's daughter-inlaw revealed that Hidrotambo continues to work in near to the elderly woman's home, and they were expected to topple her entire house sometime in late April or early May.

Criminalization of social protest

As part of a nation-wide increase in the criminalization of social protest spurred by the Alianza PAIS government's extractivist agenda, allegedly false accusations of violence, sabotage, and terrorism have been registered against 20 people from San Pablo de Amalí since June 29th, 2012.²³¹ Two community leaders, who are some of the most vocal and instrumental individuals in organizing resistance against this extractive project, have unsurprisingly been the most actively criminalized thus far since the company reentered in 2012. On November 12th, 2012, in the 5th district court of criminal trials in Chillanes, an order for 'preventative imprisonment' was issued against these two leaders of the San Pablo de Amalí community. They received this order for allegedly having committed acts of 'sabotage' and 'terrorism.' The two have only protested peacefully, and this judicial order is therefore a violation of the Constitutional Right to Resistance, the Right to Organization and Protest, and protection against political persecution.²³² The two leaders were forced to go into hiding to protect their lives.²³³

In a powerful move of solidarity, 200 people traveled from San Pablo and other communities on December 5th, 2012, to gather outside of the criminal tribunal in

²³⁰ "Desplazamientos," (Quito: Comisión Ecuménica de Derechos Humanos-CEDHU, April, 2013) <u>http://vimeo.com/64245941#at=0</u>

 ²³¹ "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza," p. 10

²³² "Constitution of 2008 in English: The Constitution of the Republic of Ecuador," 2011.

²³³ "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza" p. 10

Guaranda, Bolívar, in protest of the criminalization of these two leaders. The protestors, "...with strength in their voices, demanded freedom for their companions."²³⁴ To everyone's delight, the 'preventative imprisonment' orders were revoked.²³⁵ It seemed for a moment that the community's complaints were being listened to. But soon enough, the State responded with full force, slapping charges on the solidarity protestors themselves, and re-trying the leaders. Fifteen individuals who protested the two leaders' imprisonment received judicial accusations and have been ordered to pay \$200,000 conjointly.²³⁶ The court called a new trial, which resulted in renewed charges for the two *campesinos*, once again for 'terrorism' and 'sabotage.' One of the two leaders expressed to a reporter, "What we feel is indignation, because *justice* is not *just* for us."²³⁷

The new charges against the two community leaders were followed up on February 26th, 2013 in Cantón Chillanes by a preparatory hearing and a formulation of the final ruling.²³⁸ It was ruled that the two individuals must be imprisoned. According to their lawyer, they would face four to eight years in prison. The lawyer expounded, "this is a contradiction of the Right to Resistance consecrated in our Constitution and yet another example of the criminalization of defenders of water."²³⁹ These two leaders requested alternate measures to imprisonment from the court, and fortunately their request was

²³⁴ "Revocan prisión preventativa en el juicio de terrorism contra dirigentes en el caso San Pablo de Amalí," diciembre, 2012

 ²³⁵ "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza", p. 3

²³⁶ Trujillo, Ramiro, Meeting with the mayor of Chillanes, Rachel Conrad, January, 2013

²³⁷ "San Pablo de Amalí: Perseguidos Políticos – Criminalización de la lucha social," (Guaranda: Federación de Organizaciones Campesinas de Bolívar, FECAB-BRUNARI, 27 de febrero de 2013)

²³⁸ "San Pablo de Amalí: Perseguidos Políticos – Criminalización de la lucha social," febrero de 2013

²³⁹ "ECUADOR: Aumenta número de campesinos acusados de terrorismo." Agencia Tegantai: Ballenitasi.org, 2012, http://www.ballenitasi.org/2012/11/ecuador-aumenta-numero-decampesinos.html

granted.²⁴⁰ I have not found out what these measures will be, but when examining other cases, common alternative measures are banning individuals from participation in any form of protest, and mandating regular check-ups with the court. One of the criminalized leaders commented on their sentencing, "What happened yesterday is revenge from the prosecutors and members of the police force, accusing us without any proof of crimes that we have not committed."²⁴¹ Since Hidrotambo's contract renewal, many other Dulcepamba watershed inhabitants have been criminalized as well. In June of 2012, several landowners tried to peacefully impede Hidrotambo's invasion of their property, and as a result they were illegally detained for over 24 hours, and hit by the policemen. One of those individuals is handicapped.²⁴²

Criminalization of social protest, as shown in Chapter 1, is currently widespread in Ecuador, and the judiciary has often been complicit with efforts to criminalize dissidents. According to a Peace and Verification Commission that investigated the San José del Tambo case, "The majority of administrators of justice involved have not showed signs of acting independently. This is verified by their agility in resolving cases brought by the State or individuals related to the company, against community leaders and local policymakers, in which they favor criminalizing people who have mobilized in defense of their right to water. They accuse these people of terrorism, sabotage, and other crimes. [The judge's lack of independence] is also verified in that they discard cases brought by community members without sufficient justification, and the judges majorly

 ²⁴⁰ Reyes, David, Email communication, Rachel Conrad, Acción Ecológica, Quito, March 21st, 2013
 ²⁴¹ "San Pablo de Amalí: Perseguidos Políticos – Criminalización de la lucha social," febrero de 2013

²⁴² "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza" p. 9

delay in processing the community member's cases."²⁴³

The lack of judicial independence in court cases related to the San José del Tambo project may be related to the fact that president Correa gained increased control over the judiciary in 2011. Human Rights Watch reports that president Correa obtained a popular mandate in 2011 "for constitutional reforms that significantly increased government powers to influence the appointment and dismissal of judges."²⁴⁴ The mandate allowed Correa to dissolve the Judicial Council, a body composed of independent jurists responsible for the selection, promotion, and dismissal of judges. The president, the legislature (in which Correa has majority support), and the Transparency and Social Control Function, which is a citizens' branch established in the 2008 Constitution, came together to appoint a "tripartite transitional council," who would select judges over a period of 18 months. This transitional council dismissed scores of judges in August and September of 2011, which may have intimidated the remaining judges into supporting Correa in their judicial decisions. In September, 2011, "at the request of the transitional council, Correa declared a 'state of emergency in the judicial branch,' to resolve the 'critical situation' of the justice system."²⁴⁵ Correa's decree created "a 'national mobilization, especially of all the personnel of the judicial branch.' Human Rights Watch suggests that a lack of "clarity about the meaning of 'mobilization' could threaten judge's independence by suggesting they must get behind government goals or risk dismissal."²⁴⁶ Correa had the power to choose one of the five members of the judicial council that replaced the one that was dissolved, and two of the other members on the new council are

²⁴³ Ibid., p. 41

²⁴⁴ "World Report 2012: Ecuador 2011," (Human Rights Watch: January, 2012) http://www.hrw.org/worldreport-2012/world-report-2012-ecuador ²⁴⁵ Ibid., 2012

²⁴⁶ Ibid., 2012

the Correa's attorney general and public defender. In such an intimidating climate, it is likely that judges would think twice about supporting the protestors of the San José del Tambo hydroelectric project, which president Correa so ardently supports.

Intimidation

Besides outright violations of human rights and unjust criminalization, the publicprivate alliance working to forward the San José del Tambo project has diversified their tactics by intimidating key members of the opposition and by deliberately sowing seeds of division among community members. The mayor of Chillanes, Ramiro Trujillo, is a victim of this intimidation. For years, he has stood against the hydroelectric project and the human rights violations experienced by San Pablo de Amalí community members. In two visits with the mayor, I observed the time and care he took to talk with anyone and everyone, and the sincerity with which he listened and responded. People told me that he barely ever takes time off and that his health has suffered from such long hours. Mayor Trujillo has made multiple visits to San Pablo de Amalí and on those visits he has observed firsthand the police intimidation and aggression experienced by community members. Mr. Trujillo decried to me the highway robbery of his constituents' water: "As farmers in the breadbasket of Ecuador," he said, "without water, we cannot produce food. Without water, we wouldn't be anything, the earth wouldn't produce, and we'd all have to go to enlarge the belts of...misery that surround the big cities."²⁴⁷ As a reward for his humanity and hard work, Mayor Trujillo has been subject to court proceedings concerning his support for the communities.²⁴⁸

²⁴⁷ Ramiro Trujillo, interview, Chillanes, April, 2012.

²⁴⁸ "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza," p. 10

In addition to being criminalized, the mayor has been scared into submission to Alianza PAIS by several actions taken by the proponents of the hydro project. In late 2012, Mayor Trujillo was invited to a dinner with members of Rafael Correa's political party, Alianza PAIS, which was also attended by key government officials including the vice president of Ecuador, Lenín Moreno Garcés. At the dinner, the Alianza PAIS politicians began to pressure Mayor Trujillo to "wear the shirt of Hidrotambo."²⁴⁹ Mayor Trujillo stood up for the communities at the dinner, responding that he had seen for himself the injustices of the project, and would not support these human rights abuses.²⁵⁰ Several days after I met with the mayor and other community members in January of 2013, word arrived that two armed men had allegedly entered the city hall in Chillanes and sought the mayor out. They were arrested before any violence occurred. While the evidence is unclear as to who hired these men, community members have speculated that they were hired either by Hidrotambo or the Alianza PAIS proponents of the dam.²⁵¹

In late January of 2013, word arrived that the intimidation had become too much for the mayor to withstand. To avoid further confrontation and to protect himself, Mayor Trujillo had left his indigenous political party (Patchakutic) and joined the Alianza PAIS party. The mayor commented that he would not betray the communities, but the most he would do is to ask that they not be criminalized for their protest anymore.²⁵² He would not actively defend the communities anymore in their overall fight against the hydroelectric project and for their rights to water and *Sumak Kawsay*.

²⁴⁹ Conversations with community members and Mayor Trujillo, January 2013.

²⁵⁰ Ibid., January 2013

²⁵¹Conversations with community members and David Reyes of Acción Ecológica, January 16, 2013

²⁵² Anonymous source, email communication, February, 2013.

A man from San Pablo de Amalí recounted another frightening instance of intimidation to me. As I listened to his story, I was hit once again by the gravity of the repression that has become a constant specter in the lives of people who resist simply because they want to live peaceful lives. Sometime in late 2012, people from the local Campesino Social Security Center made 200 copies of the film documentary *Represados*, which outlines the injustices surrounding the San José del Tambo project. They began to hand the documentary out to locals who came by, asking them to watch it to see what is threatening their region. Soon, an unidentified individual came around and announced that if they did not stop distributing the documentary, they would be killed.²⁵³ In a political and judicial climate that does not support victims of extractive projects, recipients of such intimidation cannot look to the state for protection or legal support.

Media suppression and community division

What role has the media played in publicizing this case? As outlined in Chapter 1, the Ecuadorian media has been increasingly censored and controlled in recent years—part and parcel of a trend towards social exclusion of rural and indigenous peoples to maintain the extractivist model. The Hidrotambo case is no exception, and hence very little has been revealed about the injustices in Ecuadorian media. Two articles on the project have been published in mainstream media,²⁵⁴ and one mainstream television channel carried a two-minute clip on the issue.²⁵⁵ The rest of the media generated has been from small environmental and social justice oriented online-only publications or

 ²⁵³ San Pablo de Amalí community member, San José del Tambo parish, January, 2013
 ²⁵⁴ "Construcción de hidroeléctrica enfrenta a comuneros y empresa," 2012 y "Orden de prisión a dos opositores de proyecto," (El Universo: Noviembre, 2012) http://www.eluniverso.com/2012/11/14/1/1447/orden-prision-dos-opositores-proyecto.html

²⁵⁵ "Hidro tambo enfrentamientos," Teleamazonas Guaranda, November 1, 2012, http://www.youtube.com/watch?v=sqnc8CaqFIY

blogs, obviously with limited readership. Part of the reason for lack of coverage is outright physical prevention from carrying out interviews, as described above with the handcuffing and detention and of two elderly individuals looking to carry out interviews with Teleamazonas. Other explanations for this gap in media coverage are less obvious.

One less visible reason for the vast information gap about the San José del Tambo project's transgressions is that news outlets are increasingly afraid to take on controversial stories—especially to reveal government-supported suppression—because of the ever more common criminalization of reporters and media institutions (discussed in Chapter 1). Another important factor in the lack of media coverage is that San Pablo de Amalí is not very accessible. It is several hours away from large cities where mainstream media is based, and getting there necessitates long trips on dirt roads. Television stations and newspapers might decide to ignore requests to cover the story due to a combination of mounting fears of criminalization and consideration of the time, resources, and inconveniences involved in traveling to San Pablo de Amalí.

Efforts to divide the communities

What better way is there to overcome community resistance than to spread misinformation and foment division? Hidrotambo and government officials have done just that in recent years, in concert with other tactics of outright violence and intimidation. They have told lie after lie, making it confusing for locals to pick through all of the information coming at them, to verify the truth, and unite around that truth. The aforementioned human rights commission reported that San Pablo community members have alleged that "the Executive Director of CONELEC and Mr. Eduardo Speck Andrade, the manager of Hidrotambo S.A., threaten and deceive the community,

113

going from house to house."²⁵⁶ One San Pablo resident explained what these two men tell community members regarding their violated private property:

The project is going to continue. Look, [sir or ma'am], you are the only person left to solve this problem. Let's make a deal, how much do you want us to pay you, because the rest of the affected land owners, like for example [community members names], have already accepted, and we have even already paid them their money [to use their land]. You don't want to be alone by not making a deal with us. If you do [want to be alone in this], we are going to continue with the expropriation proceedings.²⁵⁷

In addition to spreading lies and threats about land expropriation, representatives of CONELEC have reportedly made trips to the watershed to disseminate the message that Hidrotambo's hydroelectric generation contract is actually less than a 50-year contract, and that anyone who has told them it lasts for 50 years or longer is lying.²⁵⁸ All official documents confirm that the contract does indeed do not just last for 50 years; they last for the durable life of the project.²⁵⁹ Various government and company officials have spread the word that everyone in the region will receive 50 years of free electricity from the company, and that Hidrotambo would implement a community sustainable development plan that would involve several projects including a health clinic.²⁶⁰ Nowhere in official documents does it say that community members will receive free electricity, and when I asked technical manager Ramiro Gordillo, "If you generate electricity and [try to] sell it to these people, are they going to have enough money to buy the electricity?," he made no mention of free electricity and replied, "I don't know...I don't know...I don't

²⁵⁶ "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza" (Anexo 6) p. 7

²⁵⁷ Ibid., (Anexo 6) p. 7

²⁵⁸ Conversations with several farmers from the region, San José del Tambo, January, 2013.

²⁵⁹ "Contrato de Permiso de Generación para la Construcción, Instalación y Operación del Proyecto Hidroeléctrico San José del Tambo", Marzo, 2012 y "Estudio de Impacto Ambiental Definitivo de la Central San José del Tambo," 2004

²⁶⁰ Interview with community member, San Pablo de Amalí, April, 2012

know...²⁶¹ The promised community development programs have been conspicuously absent for years since the first promises were made both in writing²⁶² and orally to community members about seven years ago. The utter lack of any reality to the promises of community development is symptomatic of the greater alienation of Hidrotambo's economic goals from the lives of those its project will directly affect.

Hidrotambo's efforts to divide the community have been fruitful, for formerly strong and united friends and families have been fractured due to disagreements about the dam. In 2012, a leader of San Pablo de Amalí said, "In recent times, the company has returned...but they have come this time with other forms of....fighting... of discussing things here with our community. What they have started doing is to have authorities from the Central Government come here to divide the community. With the strategy of turning us against one another.²⁶³ In my trips to the region, I encountered people in town who would not speak to those who are resisting the dam, and I was told that there is regular hostility between the supporters and the protestors. The division also cuts across family lines, something that has been particularly devastating for community members. The brother of one of the community members who I spent time with has "sold out" to Hidrotambo by supporting the dam and working on its construction, and the brothers' relationship has suffered greatly as a result.²⁶⁴

²⁶¹ Ramiro Gordillo, interview, May 18th, 2012

²⁶² "Clean Development Mechanism Project Design Document Form (CDM-SSC-PDD): San José del Tambo Hydroelectric Project, Version 03, (United Nations Framework Convention on Climate Change –UNFCCC: June 2007), p.33

²⁶³ Interview with community member, San Pablo de Amalí, April, 2012

²⁶⁴ Interview with community member, San Pablo de Amalí, January of 2013.

The changing face of resistance

In an increasingly extractivist-minded political environment, where the state ignores community advocacy and protest, uses divisive tactics, and criminalizes those who speak out against extractive activities, potential to defeat Hidrotambo today may be significantly lower than it was years ago. As described in Chapter 1, increasing conflict between socio-environmental movements and the state, spurred by the state's use of extractive development to accumulate capital for its social programs, has led to a decided closure of political space for those struggling to maintain land, water, and wellbeing.

Before 2012 when Hidrotambo's contract was renewed the Alianza PAIS government upheld its promises to cultivate participatory democracy, at least to a certain extent. Persistent, brave, and well organized, the community of San Pablo de Amalí protested the project and repression by the Armed Forces through non-violent direct action and political advocacy (as well as in court, but with less success), and a year into Correa's presidency, his government responded to the outcry, as described above, removing the Armed Forces and annulling Hidrotambo's hydroelectric contract.²⁶⁵

Today, however, a lack of process equity—i.e., differential enforcement of laws and regulations—²⁶⁶ has become a greater issue in Ecuador. Since the rebirth of the Hidrotambo project in 2012, letter after letter and report after report has been sent to local and national officials.²⁶⁷ Several letters were sent directly to president Correa as well. In discussing their inability to stop recent police brutality, a community member

²⁶⁵ "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza," p. 6

 ²⁶⁶ Susan L Cutter, "Race, Class, and Environmental Justice," Progress in Human Geography, (Columbia SC: University of South Carolina, 1995).

²⁶⁷ The Office of the Ombudsman, the Ministries of the Interior and of Electricity, Conelec, the Inspector General of the National Police, the Secretariat of Management Transparency, courts, and others. (source: Comisión de Paz y Verificación para el caso San Pablo de Amalí, Annex 11)

commented, "their versions count. Our versions don't count."²⁶⁸ It seems that anyone who speaks out publically will not be listened to and instead is at great risk of being criminalized. The government has become increasingly supportive of hydroelectric development at all costs over the years since Hidrotambo's dream was born, and the state is more and more willing to criminalize, intimidate, or otherwise incapacitate those who stand in the way. Today, therefore, it would be immensely difficult for community members to oust the police or the company in the way they ousted the Armed Forces and achieved the annulment of Hidrotambo's contract in 2009.



Figure 2: locals occupying the machine camp. Courtesy of David Reyes, Acción Ecológica, 2013 Life and Resistance in San Pablo de Amalí

Can you start to imagine now, what life in San Pablo de Amalí has been like for the past nine years? Can you imagine what might happen to your trust in government and in the police? Or what it is like to feel that the law is never on your side? What would the knowledge that two key leaders of your community were in hiding, or in danger of going to prison, do to the collective psyche of a tight-knit community? What would happen to your nerves, to your health, to your children, to your outlook on life? An environmental psychologist visited the region as part of the peace commission to listen to people's

²⁶⁸ Interview with local farmer, San Pablo de Amalí, Bolívar, Ecuador, Rachel Conrad, January, 2013

stories and to report on the psychosocial impacts of the San José del Tambo project on local residents. She said that, "...the need to install a permanent alert system has on one hand strengthened community cohesion, but on the other hand, it has caused psychoemotional disturbances expressed in processes of chronic stress, anxiety, distress, and mental suffering, directy related to uncertainty [about the future] and to the expressions of violence."²⁶⁹ Fear of losing the water that sustains *campesino* agriculture in the region is a constant psychological weight. Imagine having to wonder where you and your whole community will go, and how they will find land, work, food, and community support when water access becomes a thing of the past. The psychologist concluded, unsurprisingly, that, "...at this time, the community's mental health is characterized by exponentially increased levels of Depression and Anxiety in comparison with populations in 'normal' conditions."²⁷⁰

Resistance: 2012 to present

The communities of the Dulcepamba watershed have tried to defend their lands and waters with peaceful direct action since Hidrotambo's 2012 return. But new rules of the game have weakened the power and viability of social protest, what with frequent police violence and strong backing from a government that sees 'extremist environmentalist' communities (see Chapter 1) like this one as an impediment to state development interests. So, after almost nine years, what keeps these people going? I asked this question to an elderly man who has been actively involved in the struggle since the beginning, and he told me with such beautiful care in his eyes and amazing strength for an eighty-or-so-year-old, "we will eventually die. And the children? They have just

²⁶⁹ "Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza," p. 12

²⁷⁰ Ibid., p. 12

arrived on this planet! They are the ones that are going to have to deal with all of the damage that they are going to cause with the hydroelectric project...that's why we fight."²⁷¹ Another man said, "Just like our parents left us an inheritance, we also want to leave an inheritance for our children, so that they don't feel cheated, or like their parents abandoned them."²⁷² With inspiring resilience, community members have outlined new strategies to continue the struggle in the best way possible considering increasing repression and decreasing citizen participation.

New Strategies: The Strength of Coalition Building

You can blow out a candle But you can't blow out a fire Once the flames begin to catch The wind will blow it higher --Peter Gabriel, singer/songwriter, "Biko," 1980

Locals have realized that because many of the key leaders from San Pablo have been criminalized, their current strategy of mostly local resistance is not sustainable or ultimately effective. They have thus begun to look outwards, beyond their community to people in other parts of the watershed, and beyond their watershed to social, environmental, and political organizations within Ecuador and abroad. When I asked what their new strategies are in the face of increasing government-backed violence and criminalization, a community leader said, "to our friends with whom we share the same problems, let us join together! And we will have much more strength! For what? So that at least they respect our rights as human beings, and also the rights of Nature."²⁷³

To spread local awareness, residents of the lower part of the watershed plan to make a journey from the highest elevations to the lowest elevations. During the journey,

²⁷¹ Interview with community member, recinto Vainillas, April, 2012

²⁷² Community member, San Pablo de Amalí, donated archival footage, 2007

²⁷³ Interview with community member, San Pablo de Amalí, April, 2012

they will stop at different communities throughout the watershed to discuss the issue and to create a solidarity network.

Despite the setbacks in publicizing the injustice due to media suppression, community members and their supporters at Acción Ecológica and other organizations have been in communication with leaders of CONAIE and have secured a date for a large press conference—in Quito so as to be accessible to the media—that will be sponsored by CONAIE. Community members will make the eight our trek from the San José del Tambo region to Quito to make their story known. The press conference will take place some time in May, 2013 and will hopefully receive large-scale coverage.

Nationally, coastal peoples-crabbers, oyster gatherers, cockle fisher people and clammers- are fighting the industrial shrimp farms that continue to destroy mangroves whose diverse ecosystems have for generations given locals sustenance and work. Other communities on the coast have organized to protect small farmers who are being threatened by large agribusiness and other industries. Many communities and coalitions are fighting tirelessly to hold back national and transnational mining companies from contaminating the waters they depend on for drinking, bathing, cleaning, small scale farming, and for their animals. Yet other communities are fighting against similarly repressive hydroelectric projects. Thousands are fighting contamination and the repressive activities that come with petroleum extraction on indigenous lands in the Amazon. The community of San Pablo de Amalí and other Dulcepamba watershed residents have reached out to organizations formed around these similar struggles for water, land, and wellbeing, and to my understanding, these budding coalitions are a tremendous source of hope for all parties involved.

120

The Coalition of Organizations of Autonomous Small Farmers of the Coast (also called "Tierra y Vida") has expressed strong support for the people affected by the San José del Tambo project. In a declaration published the day after the October 30th and 31st police abuses in San Pablo de Amalí, Tierra y Vida proclaimed, "the Coalition 'Tierra y Vida' expresses its most energetic rejection [of the San José del Tambo project]. Acts like these constitute a flagrant violation of the most elemental human rights. We demand the immediate cessation of this harassment and the retreat of the police force." They went on to say, "under no circumstances can it be justified to violate rights which are established in the Constitution and in international laws and agreements, especially if the violation is for extractive purposes."²⁷⁴

A delegation from San Pablo de Amalí went to the coastal city of Guayaquil to attend the Assembly of Organizations, Communities and Nationalities of the Coast, which occurred in late 2012. They joined more than 600 people,²⁷⁵ and were able to network, sharing their stories as well as listening to the stories of other struggles. The Federation of Campesino Organizations of Bolívar, FECAB BRUNARI, has published several declarations against the human rights abuses and the project in general.²⁷⁶ Community members are also working to form ties with CONAIE, Ecuador's largest and most politically powerful indigenous organization, and Ecuarunari, the organization of the Kichwa people of the Andes region, which is part of CONAIE. Two community members from San Pablo de Amalí traveled to Quito in late 2012 to talk with the two most influential individuals in the indigenous movement: the president of CONAIE,

²⁷⁴ "Tierra y Vida se Solidariza con la Lucha de Camunidad de San Pablo de Amalí," (Guayaquíl: Unión de Organizaciones de Pequeños Agricultores de la Costa, 1 de noviembre de 2012)

²⁷⁵ Community meeting in San Pablo de Amalí, audio recording, Rachel Conrad, January 15, 2013

²⁷⁶ "Otra vez prepotencia y abuso policial en San Pablo de Amalí," 31 de Octubre, 2012

Humberto Cholango, and the president of Ecuarunari, Delfín Tenesaca. They asked for CONAIE to send a delegation to San Pablo de Amalí to learn about what is happening and to provide support. It remains to be seen whether support will arrive.

San Pablo community members have also formed an organization to express their interests and concerns, which is called the "San Pablo de Amalí Campesino Community Defense Committee for the Dulcepamba River and its Tributaries." Their organization has joined in solidarity with other struggles, creating strong networks of mutual support. Many of the above listed organizations sent representatives to support residents of the Dulcepamba watershed in their symbolic takeover of Hidrotambo's machine camp. Some sent representatives to join in the protest of the criminalization of leaders of San Pablo de Amalí outside the court in Guaranda. Community leaders affected by several of the most damaging Ecuadorean hydroelectric projects (like the Río Grande dam and the Baba Dam) have traveled to San Pablo de Amalí and offered support to the affected community members. Representatives from San Pablo de Amalí have in turn gone to gatherings and meetings in a variety of affected communities, including in Chone, Manabí Province, to support *campesinos* fighting the government's Río Grande dam.²⁷⁷ Hopefully San Pablo residents' connection to other movements will transform the community's mood from a feeling of hopelessness to one of empowerment, and ultimately generate enough powerful dissent to impel the Alianza PAIS government to respond to their demands.

With direct action and legal pathways increasingly difficult to maneuver in the current repressive atmosphere, one of the community's new strategies is to appeal to international human rights organizations with the hope that they might see beyond the

²⁷⁷ The two affected groups were at the Meeting of Defenders of Water in San Luis de Pambil in April, 2012 which I also attended. They have also visited eachother's lands.

justifications for the project that have been generated within the extractivist economic model. On August 21, 2012, a Peace Commission, made up of eight Ecuadorian human rights and environmental organizations joined in solidarity with the community.²⁷⁸ Representatives from these organizations visited San Pablo de Amalí to gather information about the situation. The Commission compiled testimonies, and out of sincere concern for the numerous complaints received about aggression, persecution, and litigation, the Commission wrote a comprehensive report that about the violations of Human Rights and the Rights of Nature in San Pablo de Amalí. The report has recently been delivered to the United Nations and the Inter-American Court on Human Rights.

Work has also been done to spread information about the San José del Tambo injustice to environmental and human rights NGOs around the world. U.S. NGO Food and Water Watch has helped to disseminate a sign-on letter of international solidarity to groups fighting the same extractive practices across the globe. International Rivers, another U.S. NGO has offered advice and support to Acción Ecológica in Ecuador, for their work on the San José del Tambo hydroelectric issue.

My small part in this

I hope to contribute to the Dulcepamba community's fight by continuing to network with human rights and environmental groups in the U.S. and elsewhere about the issue, and by working on a socio-environmental study of the Dulcepamba watershed for a year between July, 2013 and July, 2014. The purpose of the study is to gather information

²⁷⁸ Acción Ecológica, Comisión Ecuménica de Derechos Humanos (CEDHU), Centro de Derechos Económicos y Sociales (CDES), Foodfirst Information and Action Network (FIAN-Ecuador), Fundación Regional de Asesoría en Derechos Humanos (INREDH), Unión de Organizaciones Tierra y Vida, Comité Permanente por la Defensa de los Derechos Humanos (CDH Guayaquil), Red de Ecologistas Populares, Red Latinoamericana de Afectados por Represas y en Defensa de sus Ríos, (REDLAR).

about the flow volume in the Dulcepamba River, farmer's water use, their sources of water, irrigation management, their crop types, and more. The data will provide a concrete picture of the local farmer's need for water. I will work with community members to gather and compile this data so that it can be utilized by farmers to challenge Hidrotambo's water use rights in court or through direct complaints to SENAGUA.

Alternative economy

Community members are looking to start a small tourist operation and other local production ventures, which would strengthen their economy and their agency to stand up to Hidrotambo and the government. The cost of traveling to other towns or cities to protest the criminalization of their leaders or to join in meetings with other groups, etc., has been prohibitive at times. Disposable income would give the locals the ability to finance such things, and potentially to pay for lawyers. A community member told me about a waterfall with high mineral content that is known locally for its healing capacities, which could become a tourist attraction. An engineer from Chillanes wrote in the territorial zoning plan for the area, "The possibility to invest in value-added activities can be found within rows of cacao and corn [in the Dulcepamba watershed]. The Ecuadorian Institute of Popular and Solidarity Economics (IEPS-Bolívar) proposes to implement a cacao storage center in San José del Tambo."279 Locals would make cacao paste and other products from the stored cacao to sell locally and nationally. Other efforts being carried out to strengthen the local economy are the creation of "agroecology" production and commercialization networks" and local trade networks.²⁸⁰

Local, regional, and international network building, media outreach, a watershed

²⁷⁹ "Plan de Desarrollo y Ordenamiento Territorial (PDOT)," p.10
²⁸⁰ Ibid., p. 11

analysis, and the formation of small solidarity economy operations have the potential to build enough awareness and power to influence Hidrotambo and the government to drop their ill-fated and extractive project. President Correa and his Alianza PAIS government may begin to feel mounting pressure to let go of their image of San Pablo de Amalí residents as "childish environmentalists," and to instead truly recognize the struggle of people who have stood for and articulated their rights and values for almost nine years. The strength of a united community that is tied to other communities locally, nationally, and internationally through strong coalitions is a force to be reckoned with. A farmer rallied communities in the watershed by saying, "They will not win against our communities, ladies and gentlemen. Because community is the ultimate authority! It surpasses all other authority, all documents, all laws...we are going to make the power of community prevail!" After sharing a long story of protest, a local farmer said resolutely, "We have always been united. And they will not sway us. They wont- because they say they are going to-they want to buy us off. But not even for gold or silver will we sell out."281

²⁸¹ Interview with community member, April, San Pablo de Amalí, 2012



Figure 8 "Clean Energy for Everyone!" San José del Tambo hydroelectric project. Photo credit: Teleamazonas, 2012

Chapter 3: the 'Clean' Development Mechanism: Carbon Reductions or Industrialization and Repression?

"History has seen attempts to commodify land, food, labour, forests, water, genes and ideas. Carbon trading follows in the footsteps of this history and turns the earth's carbon-cycling capacity into property to be bought or sold in a global market. Through this process of creating a new commodity – carbon – the Earth's ability and capacity to support a climate conducive to life and human societies is now passing into the same corporate hands that are destroying the climate... Carbon trading will not contribute to achieving this protection of the Earth's climate. It is a false solution which entrenches and magnifies social inequalities in many ways..."

-- The Durban Declaration on Carbon Trading

There is an entity in addition to Hidrotambo S.A. and the Ecuadorian government

that supports the San José del Tambo hydroelectric project. The United Nations Clean

Development Mechanism (CDM) also supports the project under much of the same false

logic and developmentalist rhetoric used by the Ecuadorian government and Hidrotambo.

The CDM, a market mechanism created to reduce global greenhouse gas emissions that

came out of the United Nations Framework Convention on Climate Change (UNFCCC)'s

Kyoto Protocol, has approved the San José del Tambo project as a clean development

project. In doing so, the CDM opened up the opportunity for Hidrotambo to sell credits, earned by purportedly reducing carbon dioxide emissions through their clean project, to industrialized countries and their companies in global carbon markets. Not only does registration as a clean development project provide Hidrotambo with extra income, it also gives the company social and political clout by framing their hydroelectric project as "clean development."

The Kyoto Protocol was condemned to fail by an addition that Al Gore and the U.S. delegation to the UNFCCC convention insisted upon in the final moments of negotiation. As a condition of considering the *possibility* of joining the Kyoto Protocol (which the U.S. never joined in the end), the U.S. delegation demanded that market mechanisms be included in the Protocol to allow "flexibilities" for the industrialized countries to meet their reduction commitments. The idea behind the market mechanisms is that because greenhouse gases are well-mixed in the atmosphere, it does not matter where emissions reductions come from. As it may be cheaper for a country or company to reduce emissions in some other place due to cheaper land values, better tax incentives, more lenient laws, etc, industrialized countries and their companies should be able to "outsource" their required emissions reductions to capitalize on efficiency and to avoid costs. They would fund clean, green development projects in other locations, and then equate the emissions avoided by these clean projects with an amount of greenhouse gases that they can continue to emit. Such "clean" projects can be hydropower dams, efficiency improvements in coal-fired power plants, wind farms, methane-reduction projects in

127

cement factories and mines, biomass power plants, etcetera. The most common project type by far is hydropower dams.²⁸²

The U.S. insisted that the best way to represent the allowances for industrial countries to continue to emit based on the emissions reductions in the global South they funded was in the form of tradeable permits to emit. This means that a permit can be sold and traded on a global carbon market, which would mean even greater economic efficiency due to the permit's high liquidity. Three "flexible mechanisms" were created out of the United States' idea for market mechanisms—International Emissions Trading (IET), Joint Implementation (JI), and the CDM.

While IET and JI facilitate the outsourcing of emissions reductions to mitigate climate change in a supposedly economically "efficient" manner within countries of the global North, the CDM, launched in 2005, facilitates emissions reduction outsourcing exclusively from countries in the global North to countries in the global South. The CDM has become a very significant part of compliance with Kyoto-mandated emissions reductions for industrialized countries. It is by far the largest global carbon offsetting system.²⁸³ There are 6,755 clean projects currently registered with the CDM, according to the UNFCCC. Between 2005, when the first CDM credits were issued, and 2012, the CDM generated over one billion Certified Emissions Reduction credits (CERs).²⁸⁴ Each CER is supposed to represent one ton of avoided CO₂ emissions. Beyond allowing the global North to reach their emissions reduction targets in an economically "efficient"

²⁸² "Rip Offsets: The Failure of the Kyoto Protocol's Clean Development Mechanism," (Berkeley, California: International Rivers, November, 2008), p. 2.

²⁸³ Ibid., p.3

²⁸⁴ "Intro to the CDM," (Carbon Market Watch: 2013), <u>http://carbonmarketwatch.org/learn-about-carbon-markets/intro-to-the-cdm/</u>

manner, the CDM aims to simultaneously assist "developing" countries to achieve "sustainable" or "clean" development.

How can a mechanism created to address global climate change through clean development support harmful and extractive projects like the San José del Tambo project? Why does a hydroelectric project that not only perpetrates social and environmental injustices, but also arguably does not even reduce global greenhouse gas emissions, continue to be supported by the CDM? In this Chapter, I will first explain the ways in which the CDM fails to effectively reduce global greenhouse gas emissions, and I will then discuss the harmful impacts of CDM projects on local communities in the global South through green-washed extractive development. I will illustrate the false logic and perverse incentives within the mechanism that lead to these negative outcomes with an analysis of the CDM's support for the San José del Tambo hydroelectric project.

Business as usual in the global North and dirty projects in the global South

The CDM is so clearly a failure that many of its old defenders have, "deserted the cause,"²⁸⁵ and a growing multitude of "economists and prominent climate scientists have joined the chorus of criticism..."²⁸⁶ Its market-based solutions to climate change allow the global North to continue "business as usual" greenhouse gas emissions, and while the logic is that those emissions are being offset in the global South, the projects supported in the global South often do not actually reduce emissions, or they reduce emissions less than promised. Thus, the global North continues to emit gases beyond their Kyoto allowances while assuring the world that they have offset those emissions, but more often

²⁸⁵ Tim Webb and Terry Macalister, "Carbon Trade Wrong, Says Lord Browne," (UK: *The Guardian*: March 8, 2009), http://www.guardian.co.uk/business/2009/mar/08/oilandgascompanies-carbonemissions.

²⁸⁶ This group includes James Hansen, Jeffrey Sachs, Joseph Stiglitz, William Nordhaus, Kevin Anderson and Gregory Mankiw among others. (Source: Lohmann, *la Neoliberalización del Clima*, 2012)

than not their supposed offsets are false. David Victor, head of Stanford's Energy and Sustainable Development Program, believes that, "between a third and two thirds" of CDM offsets do not represent actual emission cuts.²⁸⁷ In this way, the CDM not only fails to reduce global greenhouse gas emissions, it also promotes an *increase* in global emissions.

Why don't clean development projects in the global South reduce global greenhouse gas emissions? The principal reason is that the designation of projects as greenhouse gas reducers is based on defective logic: the logic of "additionality." Each CDM project must go through a United Nations registration process that is designed to ensure "real, measurable and verifiable" emission reductions that are "additional" to what would have occurred without the project. The requirement for additionality is crucial, because if a project was going to be implemented anyway, without the CDM's help, no real global offset is being made. However, while crucial, "additionality is [the CDMs'] most fundamental flaw."²⁸⁸ This is because there is no sound way to show that a project would not have been implemented without the CDM's help, nor is it possible to assuredly show that a project is actually reducing emissions and not just contributing to growth. Importantly, because the principal goal of the participants in a capitalist carbon market is to profit from the generation and trading of credits and not to mitigate climate change, project developers tend to make dishonest claims and hide key information in order to convince the CDM that they are "additional," and therefore qualify for CDM approval.

²⁸⁷ "Stanford Study May Stir Debate On Limiting Costs In Climate Bills," Carbon Control News (carboncontrolnews.com). Posted March, 7 2008.

²⁸⁸Joanna Cabello, "The Politics of the Clean Development Mechanism: Hiding Capitalism Under the Green Rug." (Steffen Böhm & Siddhartha Dabhi (eds): Chapter 18, 2009)

Financial Additionality

It is very difficult to show that a project's proponents could not have financed their project without the CDM. This is because the financial transparency of the project's investors is low and so there is not enough information provided in project applications (Project Design Documents or PDDs) to decide whether CDM funding is really make or break for a project. For example, Hidrotambo S.A. promises that their project would be impossible to implement without the CDM funding, but they provide extremely weak justification for their claim.

Hidrotambo states in their PDD that one of the reasons that the project could not exist without CDM funding is that there is a "scarcity of financial resources for like hydro projects in Ecuador," because, "national banks are not interested and do not want to finance long-term projects..." and because of the, "...perception of foreign investors that Ecuador is a risky country to invest in." They refer to Ecuador's low Fitch credit ratings to prove the disinclination of foreign investors.²⁸⁹ On the contrary, Hidrotambo itself includes two foreign investors, the company has received loans from at least two national banks, and the vast majority of small and large hydroelectric projects in Ecuador are successfully funded, or owned and funded, by foreign investors. It is hard to believe that the company experienced prohibitive difficulty in finding enough investment for their project.

To prove that they cannot obtain sufficient loans, Hidrotambo includes a short email in their PDD Annex from International Bank, which had originally loaned Hidrotambo six million dollars for six years with an eight percent interest rate. The letter

²⁸⁹ "Project Design Document for the SJTHP: United Nations Framework Convention on Climate Change Clean Development Mechanism." (Quito, Ecuador: UNFCCC, March 21, 2007) p.10

states, "according to your requirements, we must inform you that, taking into account the deterioration of business in Ecuador, the financial conditions originally agreed upon with Hidrotambo S.A...have suffered an important cutback in amount and maturity." "Obviously, for the same reason," they say, "there will be an increase in the interest rate."²⁹⁰ It is anyone's guess whether one sub-optimal loan condition from one bank is representative of Hidrotambo's non-partner investment experience overall, and it is also impossible to tell from the information provided whether one sub-optimal loan means that the 19 million dollar project is not viable without CDM funding. Hidrotambo has received loans from other lenders. One of those lenders is Banco Bolivariano, which provided two million dollars over three years.²⁹¹ Whether there are other loans to support the four investors is unknown due to lack of transparency.

Additionally, the Ecuadorian government actively supports hydroelectric projects as part of its national strategic agenda, with financial incentives such as giving hydroelectric generation plants priority to be dispatched into the national grid above fossil fuel-based electricity generations plants, and extremely cheap water concessions. The Ecuadorian government has been actively pursuing hydroelectric energy production since before the CDM was implemented, and the government's National Electrification Plan makes no mention of the CDM's support as a reason for implementing hundreds of hydroelectric projects. The reason for implementing hydroelectric and thus displacing fossil fuel generation is that hydroelectric energy production is cheaper than fossil fuelbased electricity production, partly due to the above-mentioned subsidies, but also overall

²⁹⁰ Ibid., Annex 5, Appendix 1.

²⁹¹ "Acta de Directorio de Hidrotambo S.A. correspondiente el jueves 7 de Julio de 2005," (conseguido del UNFCCC, 2005), http://cdm.unfccc.int/Projects/DB/TUEV-SUED1187627873.55/ReviewInitialComments/XWC05H6BVEC628K73Z94R9KA5TF9VP

it is a cheaper form of energy production in Ecuador (See Correa's quotes, Chapter 1). Considering that Hidrotambo purchased the Dulcepamba watershed's water at an outrageously cheap price (see Chapter 2) compared to the benefit they will gain from its waters, and considering the company has several loans, four principal investors, and strident government support, it is hard to believe that financial conditions are prohibitive to the realization of the project without CDM funding. Additionality is not a claim Hidrotambo can make on any level.

Baselines to prove additionality

To qualify for the CDM, in addition to proving their need for financial support, CDM project proponents must prove that their project will not simply add some sort of clean production to the world, but it will also displace some dirty production. For each CDM project, the project proponents must describe a hypothetical baseline world without the project and then choose a number of GHG emissions associated with this world. Then, they must demonstrate that the project reduces emissions from the level in the baseline world. The number of carbon credits (CERs) that the project can sell is obtained by subtracting the emissions in the world with the project from the emissions in the baseline world. It is questionable whether this highly theoretical construct can actually prove that a project is causing emissions reductions.

The San José del Tambo project claims that with the help of the CDM, it will reduce emissions from a baseline world by replacing fossil fuel electricity production in Ecuador with hydroelectricity. It has not been proven that this project would replace fossil fuel electricity, rather than just increase total electricity production for industrial growth. The Ecuadorian government has planned since before the CDM existed to

133

construct an excess of hydroelectric plants in order to facilitate industrial growth and profit from electricity exports (see Chapter 1). There is thus no proof that the San José del Tambo project will replace dirty energy, and not just serve industrial growth or the upcoming energy export sector. While it is possible that the project is replacing fossil fuels, there is no way to prove this, although such proof is a requirement of CDM registration.

Non-financial additionality

Project proponents can also list non-financial reasons that they need CDM support, to further prove their additionality. They must prove that the CDM can remove an obstacle that has impeded the implementation of their project. The obstacles or "non-financial barriers" to their project listed by Hidrotambo in their PDD are weakly founded at best and insulting at worst. The two main non-financial barriers listed are "institutional barriers" and "interest group barriers."

Hidrotambo lists the following "institutional barrier" in their PDD: The, "...bureaucratic process to get all the necessary permits and licenses for hydroelectric projects takes significantly longer than it typically does for thermal [fossil fuel-based] projects, causing discouragement and frustration."²⁹² Hidrotambo provides an example of the year and six months that it took to obtain the interconnection agreement with Emel Ríos (the transmission substation that Hidrotambo's electricity will travel to), which should have taken only, "a couple of months."

One delay in the process due to bureaucracy is no proof that the project would not be built without CDM support and funding. It is well known that hydro is a major

²⁹² "Clean Development Mechanism Project Design Document Form (CDM-SSC-PDD): San José del Tambo Hydroelectric Project, Version 03." p.12

component of the Ecuadorian energy agenda, and is therefore prioritized politically and financially in the country. For example, the Ecuadorian National Center for Energy Control, CENACE, had established priority dispatch rules favoring small-scale hydroelectricity before Hidrotambo applied to the CDM in 2006. These rules favored plants that use "non-conventional renewable energies" including hydroelectric generation, as long as their generation did not exceed two percent of the installed capacity of all of the electricity generation that goes to the wholesale electricity market in Ecuador.²⁹³ Since April 14 of 2011, renewable energy projects can still receive this priority dispatch status if they constitute no more than six percent of the national grid's electricity. The San José del Tambo project is small enough that it would easily receive this benefit. While it may have been frustrating to wait for an interconnection agreement, Hidrotambo did not just sit around during this time—they began construction of their project, and therefore did not suffer significant losses from waiting.²⁹⁴ On the whole, institutions in Ecuador prioritize hydroelectricity, and therefore Hidrotambo's plea for CDM funding because of "institutional barriers" is unconvincing.

Hidrotambo's second non-financial barrier, "interest group barriers" is the most absurd of its non-financial justifications for additionality. Hidrotambo says that "interest groups" are impeding the construction of their project through protest, and they therefore are a barrier that the CDM could help them to overcome. Hidrotambo defines interest groups involved in the project as, "certain political parties and left-wing organizations" and says that these groups have, "opposed the implementation of renewable energy

²⁹³ Betancourt, Byron, "Energías renovables no convencionales," Consejo Nacional de Electricidad, Cartagena, febrero de 2009. Pp. 6, 7, 8, y 14.

²⁹⁴ Eduardo Speck Andrade, "Response to Request for Review for the CDM Project Number 1298," <u>http://cdm.unfccc.int/Projects/DB/TUEV-</u> <u>SUED1187627873.55/ReviewInitialComments/RRYSV8DNN9VKAIR01BJNBT1JMG8AZ0</u>

projects by the private sector" in the past, and have currently been active in the San José del Tambo project area protesting the project. Hidrotambo defines these groups as a "barrier" to implementing their project, and requests CDM support to overcome them.²⁹⁵ The PDD paints resistance as coming from outside groups, and does not recognize that the bulk of protest against the project is coming from community members in the watershed. It frames community organizing against this injustice as an unfounded and sabotaging move. Instead of addressing the social and environmental reasons for protest, Hidrotambo asks a United Nations body to support them in overcoming protestors, in the name of "clean development," no less.

To prove that there is resistance to the project that Hidrotambo needs the CDM to help overcome, the company includes in their PDD a Police Informative Report from January, 2006 which states that, "approximately 300 people gathered in the parish square [in San José del Tambo] in relation to the construction of the San José del Tambo Hydroelectric Project. While some people were in favor of the project implementation, others protested openly against it, making clear that they would continue to fight against the project's implementation."²⁹⁶ The article paints a picture of a community that is evenly divided between support and rejection of the project. Many discussions and interviews with community members and time spent in the region have helped me to understand that this is not the case—many more are in opposition. A CONELEC report on a visit to the region concluded that, "with the exception of the inhabitants of Piscurco, the rest of the inhabitants of the communities [in the watershed] oppose the construction of the Hidrotambo project, declaring that they would even be ready to give their lives to

²⁹⁵ "Clean Development Mechanism Project Design Document Form (CDM-SSC-PDD): San José del Tambo Hydroelectric Project, Version 03," p.12

²⁹⁶ Ibid., p.12

achieve this objective."²⁹⁷ The PDD also includes a newspaper article from January, 2006 that refers to a political party, "opposing the hydroelectric projects being implemented in the province," and another article from March, 2007 which describes a group called "National Coordinator for the Defense of Life and Sovereignty," "demonstrating in full opposition to hydroelectric and mining projects."²⁹⁸ It is difficult to understand why the Ecuadorian and international CDM authorities agreed with Hidrotambo that protests are barriers to the project that the CDM could or should help to eliminate.

To top it all off, the technical manager of Hidrotambo told me outright that his company does not need funding or support from the CDM. In an interview, Ramiro Gordillo, technical manager of Hidrotambo S.A., revealed to me that despite the explanations of need and pleadings for CDM support included in their Project Design Document, the truth is that the company does not need CDM funding. I asked Mr. Gordillo, "would it be profitable to do the hydroelectric without the CDM funding?" and he responded, "Ehh, yes. Yes, it would be profitable...[CDM funding] helps the hydroelectric project, but it is a small amount of help."²⁹⁹ As Barbara Haya of International Rivers found in her research, it is surprisingly easy to find CDM project developers who openly admit that they would have built their projects anyway, regardless of CDM subsidies and support.³⁰⁰ In conclusion, the San José del Tambo project was vague, deceptive, and outright insulting in their Project Design Document, and the project is not additional and therefore should not qualify for CDM funding.

²⁹⁷ "INFORME VISITA SAN PABLO DE AMALI y SECTORES ALEDAÑOS", 2007.

²⁹⁸ "Clean Development Mechanism Project Design Document Form (CDM-SSC-PDD): San José del Tambo Hydroelectric Project, Version 03," p.12

 ²⁹⁹ Interview with Ramiro Gordillo, technical manager, Hidrotambo S.A. Quito, Ecuador. May 18, 2012.
 ³⁰⁰ "Rip Offsets: The Failure of the Kyoto Protocol's Clean Development Mechanism," 2008.

Repression under the guise of sustainable development

Hidrotambo tries to present their hydroelectric project as helpful to the local communities. They claim that the project is complemented by the application of a, "reasonable Environmental Management Plan, which will enable compliance with Ecuadorian environmental regulations, protect the river basin natural resources within its influence area, and benefit its communities."³⁰¹ The community benefits are elaborated upon: "Impacts are expected to be dramatically reduced by the application of a sensible community relations program which includes an information campaign, creation of sustainable community development programs...projects that can represent a benefit to the local population...and the application of a hiring program within the project activities within the communities in the area of influence. Sustainable development programs shall be applicable for the duration of the project, and are in fact underway at the moment of the development of this document."³⁰² Not one part of the promised "sustainable development programs" existed at the time of the PDD elaboration, and the only aspect that has been carried out in the six years since these promises were made is the hiring program, which has provided some community members with short-term, low wage jobs.

In addition to promising that there was an existing community development program in 2006 that is still nowhere to be seen, Hidrotambo does not even mention the violence and plunder of *campesino* lands that was occurring during the PDD writing and approval process. The Armed Forces repression outlined in Chapter 2 was occurring at this time, and there is not even an allusion to the use of tear gas, injuries from bullets, feeling-up of children, robberies of community members by military personnel, or

 ³⁰¹ "Clean Development Mechanism Project Design Document Form (CDM-SSC-PDD): San José del Tambo Hydroelectric Project, Version 03," 2007
 ³⁰²Ibid., p.13

unwarranted invasion of houses. There is no mention that these farmers will lose access to water for human use, irrigation, and for their animals once the project is built.

Prone to corruption in a market-based system

Market measures to address climate change like the CDM do not actually incentivize addressing climate change; they incentivize making a profit from the sale of emissions reduction credits. Countries, companies, brokers, and verifiers involved in the market value short-term capital accumulation much more than actual climate change reduction and are thus prone to corruption driven by these perverse incentives. Researcher Larry Lohmann states in his book on carbon markets, "buyers want to snap up cheap pollution rights; sellers want to make money flogging them. It doesn't matter to either whether the setup actually does any good for the climate or not."³⁰³ Hundreds of projects and millions of carbon credits are thus accused of being fraudulent—"swindles to sustain business as usual, or worse."³⁰⁴

Hidrotambo sees the opportunity to make more money from their project through the CDM, so they have lied their way into CDM funding. Hidrotambo executives are not the only people who stand to profit from the CDM: the third party verifiers (consultants approved by the United Nations to decide whether the project complies with CDM requirements) will profit as well, especially if they approve projects, because hopeful CDM project proponents elsewhere will hire verifiers with a reputation for approving projects. This perverse incentive shines a light on why Hidrotambo's verifier, TUV-SUD of Germany, would also participate in creating and approving a deceptive PDD.

³⁰³ Larry Lohmann, "Six Soundbites on Climate Markets," (The Cornerhouse, UK: 2008), p. 4, http://www.thecornerhouse.org.uk/sites/thecornerhouse.org.uk/files/Soundbites2.pdf

³⁰⁴ "Mercados de Carbono: La Neoliberalización del Clima," p.211

Willem Buiter, Chief Economist at Citigroup, wrote, "the new industry of verification of deceptive carbon reductions is growing with leaps and bounds. The quantities of money involved are immense; and, the opportunities for traps, bribes and corruption are unlimited. The idea of compensation has given birth to a monster."³⁰⁵ This helps explain how even minor efficiency improvements in gaslines, fossil fuel generation plants,³⁰⁶ coal mines,³⁰⁷ and oil wells³⁰⁸ have been approved as "clean development projects" by the CDM.

Funds emitting industries in the global South and harms existing sustainable economic activity

The CDM not only allows countries and their industries in the global North to buy their way out of making real emissions reductions, it also directly or indirectly funds *other* emitting industries in the global South. The *other* emitting industries are the clean project developers themselves. The majority of these clean project developers do not exclusively develop clean industry; they also work in other, more polluting industries. The CDM is therefore channeling money to industrial developers, many of them large emitting industries, to build "clean" projects that would have been built anyway. Is this how we will overcome global climate change?

In the case of Hidrotambo, the CDM is channeling funds to a conglomeration of large companies that produce emissions-intensive plastic shoes and boots (Plasticaucho), fund fossil-fuel electric plants (CIE, Ingeteam, and Ecoluz), and develop electrical equipment, motors, generators and frequency converters to serve the energy, industrial,

³⁰⁵ Buiter, Willem, "Carbon Offsets: Open House for Waste, Fraud, and Corruption," (Maverecon: 2007) <u>http://blogs.ft.com/maverecon/2007/07/carbonoffsets.html/</u>

³⁰⁶ Katherine Brahic, "Green' Funding for Coal Power Plants Criticised," (*New Scientist*, February 2009).

³⁰⁷ "Yanquan Coal Mine Methane (CMM) Utilization for Power Generation Project," (Shanxi Province, China), http://cdm.unfccc.int/Projects/DB/TUEV-SUED1169658303.93

³⁰⁸ Timothy Gardner, "Blue Source To Capture Kansas C02, Up Oil Output," (Reuters, August 22, 2007), <u>http://www.planetark.com/dailynewsstory.cfm/newsid/43843/story.htm</u>

marine, and rail traction sectors worldwide (Ingeteam). Through the rhetoric of "clean development," the CDM is supporting a project that will likely impel an increase in greenhouse gas emissions by channeling money to polluting industries, as well as by incapacitating sustainable food production. Hidrotambo's water privatization will lead to an extreme reduction in local food production, which will likely hasten the already troubling shifts occurring in Ecuador towards carbon-intensive industrial agriculture and carbon intensive food importation. Why couldn't a climate change program instead support small farmers like those in the Dulcepamba watershed who produce healthy food without huge emitting machinery and energy-intensive and polluting fertilizers and pesticides, and who create very few emissions from transporting food to local markets in comparison with large agro-industrial exporters?

Of the approximately 60 existing and 226 planned hydroelectric projects in Ecuador, nine are currently registered with the CDM.³⁰⁹ Of these nine projects currently supported by the CDM in Ecuador, four that I know of, including the San José del Tambo project, have been marked with grave conflicts between the developer and the local community. Others may also be marked with conflict, but I have not yet encountered information about them.

The owner of one of these projects, the Calope or "Enermax" project, generates electricity solely for one corporation in Ecuador: la Favorita. La Favorita is one of the largest corporations in Ecuador, and one of the largest landholders in the country.³¹⁰ The corporation owns most of the supermarket chains in Ecuador (Supermaxi, Megamaxi,

³⁰⁹ Buri, Alexandra, Ing., "Proyectos Registrados Ante la Junta Ejecutiva MDL. Coordinadora de la Autoridad Nacional MDL. (Ministerio del Ambiente. Quito, Ecuador: Marzo, 2013)

³¹⁰ Ricardo Buitron, "Reconquista del espacio latinoamericano. Corredores biológicos y corredores multimodales en el Ecuador" (CLACSO: 2007), p. 11 http://biblioteca.clacso.edu.ar/ar/libros/becas/semi/2004/buitron.pdf

Akí, Gran Akí, la Favorita). They also dominate the construction materials and home improvement sector (Kywi, Mega Kywi, Sukasa, Todo Hogar), and they own several disposable consumer products chains –a Christmas store (Salón de Navidad) and several toy stores. They own electronics stores (TVentas, Radio Shack) baby product stores, and more. La Favorita also owns industrial meatpacking plants (Agropesa), industrial bread products factories (Maxipan), and an industrial chicken producer (Pofasa).³¹¹ The CDM is paying an Ecuadorian industrial market monopolizer to generate electricity for industrial corporate production. Is that going to mitigate climate change?

The Calope project has privatized vast amounts of water for their dam, which diverts the Calope and Pilaló rivers towards their turbines, affecting water access for the *campesino* and indigenous cantons of La Maná and Pangua y Pujilí. Protesting community members have been unfairly criminalized for defending their land, water, and wellbeing.³¹² La Favorita would have built their hydroelectric plant without CDM funding, as the corporation has plenty of capital for start-up costs, and the plant is no sacrifice for the environment: it is cheap. The dam saves the company approximately 19% in energy costs compared to purchasing fossil-fuel derived electricity.³¹³ The Calope CDM project is therefore not additional, and thus does not contribute to global greenhouse gas emissions reductions above or beyond business as usual. Like the Hidrotambo project, it also is harming rural farming communities that live low-emissions lifestyles and produce low-emissions healthy food to feed the country.

³¹¹ Ana María Acosta, "La privatización de los espacios públicos, la recreación y el estómago –Nuevas resistencias, jóvenes e informales," (INREDH: Quito, Enero, 2011)

³¹² "Criminalización de la protesta social. Un recuento desde el retorno a la democracia" (Programa Andino de Derechos Humanos (PADH): Quito, Ecuador 2012), endnotes. <u>http://www.uasb.edu.ec/padh_contenido.php?cd=3911&pagpath=1&swpath=infb&cd_centro=5&ug=pu #24</u>

³¹³ "La privatización de los espacios públicos, la recreación y el estómago –Nuevas resistencias, jóvenes e informales," 2011

The *campesino* communities close to the Apaquí project, another CDM project, have organized resistance due to the fact that the project's owner, Current Energy of Ecuador, has privatized an entire watershed and has denied access to water for many local farming communities.³¹⁴ Communities surrounding the CDM Hidroabánico project also joined together in resistance, because the project ruined forest, aquatic, and farming ecosystems, and flooded several neighborhoods and an airport in the city of Macas.³¹⁵ The Hidroabánico project generates electricity for Coca Cola, KFC, and a transnational mining company.³¹⁶

A mechanism that promotes further industrialization inevitably leads to greater global consumption and carbon emissions, which will never be fully offset by clean energy production. In the Dulcepamba watershed, this pattern will play out if the dam is not cancelled. Hidrotambo's hydroelectric project will displace a small-scale farming population that currently contributes significantly to low emissions food production in the country. Hidrotambo's turbines will provide electricity for mainly industrial users, whose activities will increase overall global industrial activity and consumption of resources. And, many of the displaced farmers will likely end up leaving farming behind and move to large cities where they will use more resources and consume more than they do in a *campesino* lifestyle.

³¹⁴"Temen Quedarse Sin Agua," (periódico La Hora, La Paz, Marzo: 2007), <u>http://www.lahora.com.ec/index.php/noticias/show/547051/-</u> 1/Temen quedarse sin agua.html#.UX2sJRzOJIO

³¹⁵"Ecuador: lucha en Jimbitono en contra de hidroeléctrica: solidaridad urgente de movimientos sociales de Cuenca" (Biodiversidad en Am'rica Latina y el Caribe, Macas: 2006), <u>http://www.biodiversidadla.org/Principal/Secciones/Noticias/Ecuador_lucha_en_Jimbitono_en_contra_de_hidroelectrica_solidaridad_urgente_de_movimientos_sociales_de_Cuenca_</u>

³¹⁶ Ibid., 2006

An irredeemable mechanism

Who loses from the CDM scheme? And who benefits? The principal beneficiaries of the CDM are those industry owners, verifiers, and financial traders who profit from the scheme. The global public, increasingly at risk from climate change, loses, because the mechanism does not lead to global net carbon emission reductions. Local communities lose because these projects support the commodification of their resources, to be bought and sold by those who play the game of global capital. Farmers in the Dulcepamba watershed, for example, do not even know that the CDM exists, as none of the prior consultation required by the CDM occurred.³¹⁷ All that they experience is repressive violence and the robbing of their resources through water privatization. A market-based mechanism, as shown above, does not incentivize climate change mitigation; it incentivizes capital accumulation from carbon offsetting and trading. A market-based mechanism also does not incentivize community-based solutions to climate change; it only incentivizes industrial solutions.

The CDM's role as a primary mode of climate change reduction for the Kyoto Protocol distracts from the systemic change that must occur. So, what to do? Lohmann writes, "by insisting that the Carbon Market is regulatable and that small rule or design changes can address its major issues, the market gains more and more territory when it should actually be in a decorous and tidy retirement."³¹⁸ Because the problems with the United Nations CDM are not owed just to bad implementation or isolated wrongdoers, but instead the very existence of a North-South carbon free market mechanism is counter-

³¹⁷ Interview with farmer from the region. San Pablo de Amalí, Ecuador. January, 2013.

³¹⁸ Mercados de Carbono: la Neoliberalization del Clima, p. 287.

productive and unjust, the problems can only be resolved by eliminating the carbon market itself.

Potential to remove CDM funding from the San José del Tambo project

Although the CDM market has suffered from an over-supply in credits recently, and there has been talk of its self-destruction due to resulting decreased financial viability, it is unlikely that the CDM will be eliminated before Hidrotambo can benefit from it. Therefore, I will also recommend a way in which interested parties can challenge Hidrotambo's unjust registration with the CDM.

One way to challenge Hidrotambo's CDM registration is to take advantage of the project's delays and resulting need for re-validation, to submit comments to the validator, the Ecuadorian CDM office, and the CDM Executive Board, about the many inaccuracies and omissions in the PDD. The San José del Tambo project has not so far avoided any of the C0₂ emissions that Hidrotambo promised to cut during its first accreditation period (2008-2015), because the project is not yet functioning. As a result, the Ecuadorian National CDM coordinator explained to me that Hidrotambo's project will have to be revalidated if it wishes to receive emissions reduction credits when it does begin to function. She told me that, "Hidrotambo must ask their validator to revise their PDD. The validator must report to the CDM Executive Board that the project has been delayed, and any changes in the project conditions." At this time, "the validator [TUV-SUED] will do a field visit and a document revision."³¹⁹ Finally, she noted that her CDM office will do a field visit in addition to the verifier's field visit, and they will do a document revision to complement the verifier's document revision. She said, "...the Executive Board will

³¹⁹ Interview with Alexandra Buri, Ecuadorian National Coordinator of the UN Clean Development Mechanism, Rachel Conrad, Quito, Ecuador, January 2013.

request a 'notification of observation' from the Designated National Authority (DNA)," her office. "Usually," she said, "we visit all projects for which the Executive Board has requested this observation. And we always review the Environmental Impact Study."³²⁰

The CDM National Coordinator, who is new to the job, did not even know at the time when I interviewed her about the military and police aggression, violations of private property, the number of farmers who will lose access to water, Hidrotambo's new illegal hydroelectric generation contract, or their outdated environmental licenses.³²¹ For several weeks during the re-verification process that Hidrotambo will have to go through, the verifiers will take public comments, ³²² and they should be informed of these matters. Flooding the CDM with public comments may convince them that the injustices occurring in the Dulcepamba watershed warrant annulling the San José del Tambo project's CDM registration.

Climate change solutions from marginalized communities and the global South

Despite possibly good intentions behind the Kyoto Protocol's market mechanism and a hope that it would be a less burdensome way for industrialized countries to reduce their emissions, the CDM has failed to significantly reduce global net greenhouse gas emissions and has harmed many rural communities along the way. Any alternative to the Clean Development Mechanism to mitigate climate change cannot be based primarily on market mechanisms that incentivize growth and industrial development. Solutions must instead be based on lower consumption and low impact economic activity. Communities that are themselves contributing very little to climate change or other environmental problems should not bear the brunt of misguided projects that allow industry to avoid true

³²⁰ Ibid, 2013

³²¹ Ibid., 2013.

³²² Ibid., 2013.

emissions reductions. Instead, the global North must stop displacing emissions reductions and begin to make real structural changes. According to the United States Energy Information Administration, primary energy consumption in the U.S. was nearly 19% of world total primary energy consumption in 2010.³²³ The climate burden should not be centered on the global South as it is with the CDM.

While the burden of reducing carbon emissions should be primarily on the global North, the main source of those emissions, initiatives from the global South that provide an alternative to carbon-intensive development should be supported. Many rural *campesino* and indigenous communities of the global South have put forward positive approaches to climate change, but their approaches and proposals have been undermined by the dominance of carbon trading, the centerpiece of global policy on climate change. Lohmann explains that the, "math of compensation tends to eliminate alternatives to addressing climate change proposed by the less powerful and less wealthy."³²⁴ For instance, Food Sovereignty, a proposal from rural communities of the global South for a just way to mitigate climate change, has been pushed under the table in favor of industrial and technological market "solutions" to climate change. The same is true of the Yasuni ITT Initiative, a project created as an alternative to traditional carbon markets³²⁵ by indigenous communities of the Amazon and Ecuadorian social movements. The idea was that Ecuador would keep approximately 850 million barrels of oil, located in the ITT-

³²³ "How Much of the World's Energy Does the United States Use?" (United States: U.S. Energy Information Administration, 2010) <u>http://www.eia.gov/tools/faqs/faq.cfm?id=87&t=1</u>

³²⁴ Mercados de Carbono: la Neoliberalization del Clima, p. 305

³²⁵ Esperanza Martinez, et al. "Dejar el crudo en tierra o la búsqueda del paraíso perdido. Elementos para una propuesta política y económica para la Iniciativa de no explotación del crudo del ITT," (Polis, Revista de la Universidad Bolivariana, Volumen 8, Nº 23, Quito, Ecuador: 2009), p.1. <u>http://www.scielo.cl/pdf/polis/v8n23/art19.pdfhttp://www.bce.fin.ec/documentos/PublicacionesNotas/C</u> <u>atalogo/Cuestiones/XXIV-II-05Aviles.pdf</u>

petroleum blocks in the east of Yasuní National Park in the Amazon, in the ground in return for financial support from the international community.³²⁶

The important aspects of the Yasuní ITT Initiative that contribute to just solutions to climate change are that it does not let industrialized countries off the hook in reducing their own emissions, and that there is no construction or commoditization of Nature involved that would harm local communities. The Yasuní ITT Initiative is based on the idea of ecological debt, that industrialized countries are indebted to the global South for the historical plunder of their lands and their enormous historical contribution to climate change. Industrialized countries have accumulated stores of capital over time from their polluting ways, while countries like Ecuador have not made the same kinds of monetary profit from polluting. Industrialized countries are therefore asked to pay to support biodiversity, to reduce carbon emissions, and to respect indigenous lands in the Amazon. They are not given any sort of offset credit in return, as this would allow business-asusual emitting in the global North and absolve the industrialized countries of their ecological debt. The Ecuadorian government adopted the indigenous community's Yasuní ITT proposal in 2007, and has been advocating for contributions from the global North. The initiative is not on track to receive the 3.6 billion dollars that Ecuador has asked to be donated before 2024, and will thus likely fail as a climate change mitigation mechanism.

Lohmann writes, "...in response to the manifested failure of a perpetual race behind the *ghost of development*, Buen Vivir emerges with strength and power as an

³²⁶ Susan Nysingh, "The Yasuní-ITT initiative: Dreaming of Keeping Oil in the Soil," (University of Michigan, April, 2012), <u>http://deepblue.lib.umich.edu/bitstream/handle/2027.42/90914/Nysingh_Thesis_SNRE_April_17title_page%5B1%5D.pdf;jsessionid=16CEC740038A1FCCBECDDD40B9F7450B?sequence=1</u>

alternative to development...in sum rejecting the conceptual nuclei of the idea of conventional development understood as linear progress, which is at the roots of the capitalist cult.³²⁷ If *Sumak Kawsay* were truly pursued through government land reform, efforts to create a 'solidarity economy,' respect for the Rights of Nature, the Human Right to Water, Food Sovereignty, and initiatives like Yasuní ITT, the Ecuadorian government would not allow for the commodification of Nature inherent in carbon markets. Climate change mitigation initiatives proposed by marginalized communities of the global South like the prioritization of Food Sovereignty and the Yasuní-ITT Initiative should be valued by the Ecuadorian government and the international community as alternatives to failed market mechanisms and as just ways to address climate change.

³²⁷ Mercados de Carbono: La neoliberalización del clima, p.18

Conclusion: Pathways Forward

The 2008 Constitution is an incredible achievement by Ecuador's social movements. The country's 'refounding' with progressive and inclusive ideals is, however, an unfinished project. Despite all of the severe disappointments in the realization of these ideals, their existence in the Constitution provides hope that they can still be better realized with the help of coalitions and social movements active in Ecuador today. As Boaventura de Sousa Santos says, as a fruit of the constitutional process in Ecuador, "We have today concepts and ideas that we didn't have ten years ago and that cannot be wasted, like the concept of Buen Vivir, the concept of Pachamama, of the rights of Nature..."³²⁸ The social movements that struggled to bring about an end to extreme neoliberalism and to infuse progressive and inclusive ideals into the Constitution at the turn of the century will not settle for the perversion of their ideals.

While there was hope that continued struggle would not be needed after 2008, local groups such as those I have described in the Dulcepamba watershed have continued a coordinated struggle out of necessity, and they have brought that struggle to new levels. As illustrated in Chapter 2, communities in the Dulcepamba watershed are acting to address extractivist development by reporting abuses to the United Nations and the Inter-American Court on Human Rights, by creating and participating in local, national, and international coalitions formed around issues of extractive practices, and by starting to build small-scale, low-impact economic activities as an alternative economic model.

Beyond the actions already taken to challenge the San José del Tambo project, an important technical tool to challenge illegal water privatization is water level gauge

³²⁸ Eduardo Gudynas, "El buen vivir más allá del extractivismo" Prólogo a: La maldición de la Abundancia, por Alberto Acosta. (Quito, Ecuador: SwissAid y AbyaYala, 2009).

stations, which could provide accurate readings of the amount of available water in a river in order to prevent overestimations, which serve privatizers. Gauge stations have yet to be built or renovated on many of the nation's rivers. However, simple ways to measure flow volume that take as little as a meter stick, an orange, and some simple calculations can be utilized before permanent gauge stations are built, to challenge hugely inaccurate measurements such as those that informed Hidrotambo's concession. Communities from the Dulcepamba watershed might also benefit from joining global efforts to critique market-based solutions to climate change such as the CDM. Groups that have actively criticized the CDM such as International Rivers and the Corner House may be able to support the Dulcepamba watershed communities in challenging the San José del Tambo project's registration with the CDM.

As outlined in Chapter 1, the rapid implementation of hydroelectric energy production is not for the purpose of serving people and the environment as president Correa asserts; it is being implemented to export and to serve large-scale and high-impact production, including mining. Hydroelectric production, along with mining, petroleum extraction, and other extractive activities are highly questionable and likely unsustainable sources of revenue for the state. Their grave human and environmental impacts are a roadblock to the sustainable and widespread wellbeing that *Sumak Kawsay* offers.

As has been shown in this paper, multiple means of resistance are necessary to address extractive practices, because these practices are impelled by powerful interests including private companies, state governments, international development-oriented bodies, and the capitalist market-based system as a whole. While it may seem impossible to overcome these forces, it also once seemed impossible that a country dominated by

151

foreign capitalist interests and a powerful national elite would adopt a Constitution that articulated progressive ideals of wellbeing and inclusivity and offered a departure from the long neoliberal night. This only came about because of massive popular struggle. My hope is that social movements that have come this far, and that are not sitting still to allow their great achievements to be perverted, will be able to achieve a true implementation of the ideals that they fought for, through renewed popular struggle.

Works Cited

Acosta, Alberto, *et al*, "Más Allá del Desarrollo," Grupo Permanente Sobre Alternativas al Desarrollo, (Quito: Fundación Rosa Luxembourg/Abya Yala: Noviembre, 2011) <u>http://rio20.net/wp-content/uploads/2012/07/mas-alla-del-desarrollo_30.pdf</u>

"Acta de Directorio de Hidrotambo S.A. correspondiente el jueves 7 de Julio de 2005," (conseguido del UNFCCC, 2005), <u>http://cdm.unfccc.int/Projects/DB/TUEV-</u> <u>SUED1187627873.55/ReviewInitialComments/XWC05H6BVEC628K73Z94R9KA5TF</u> <u>9VP</u>

Adriana Puruncajas, "La privatización del agua camina a pasos agigantados en el país," (Beirut: RedVoltaire, 3 de noviembre, 2006), http://www.voltairenet.org/article143903.html

Adrienne Roberts, "Privatizing Social Reproduction: The Primitive Accumulation of Water in an Era of Neoliberalism" Antipode Vol. 40 No. 4 (Canada: Antipode, 2008)

"Agresión en la propiedad privada," Informe de la policiá nacional del Ecuador, servicio rural, Bolívar no. 11, (Bolívar: Policía Nacional, 23 de enero, 2006)

Alberto Acosta, "Sólo imaginando otros mundos, se cambiará éste - Reflexiones sobre el Buen Vivir" (Universitá di Roma Sapienza, CIDES-UMSA: Italy, 2011)

Alberto Acosta y Decío Machado, "Movimientos comprometidos con la vida. Ambientalismos y conflictos actules in Latinoamérica," (Revista OSAL: 9 de Septiembre, 2012)

Alberto Acosta y Esperanza Martínez (Comp.), *Plurinacionalidad Democracia en la diversidad*, (Editorial Universidad Bolivariana, Santiago, Chile: 2009)

Alfredo Mena Pachano, "La investigación y desarrollo de energías renovables en el Ecuador, análisis crítico," (Quito, Corporación para la Investigación Energética, 2006)

Alvarado Moreno, Paola Margarita, "Afectación Ambiental y Socioeconómica de la Construcción de una Central Hidroeléctrica en la Zona de Impacto: El Caso del Proyecto Hidroeléctrico Angamarca", (Universidad San Francisco de Quito: Quito) Mayo de 2009 http://repositorio.usfq.edu.ec/bitstream/23000/702/1/91109.pdf

"Amparo constitucional, proyecto San José del Tambo," (comuneros de San Pablo de Amalí) 2007

Amy Kennemore and Gregory Weeks. "Twenty-First Century Socialism? The Elusive Search for a Post-Neoliberal Development Model in Bolivia and Ecuador," Bulletin of Latin American Research. Vol. 30, No. 3, (North Carolina: University of North Carolina at Charlotte, 2011) Ana María Acosta, "La privatización de los espacios públicos, la recreación y el estómago –Nuevas resistencias, jóvenes e informales," (INREDH: Quito, Enero, 2011)

Arturo Escobar, *Encountering Development: The Making and Unmaking of the Third World*, (New Jersey: Princeton University Press, 1994)

Barrera M, Victor *et al*, "Manejo integrado de los recursos naturales para la agricultura de pequeña escala en la subcuenca del Rio Chimbo-Ecuador: Aprendizajes y enseñanzas," (Virginia: Virginia Tech University, 2008).

Betancourt, Byron, "Energías renovables no convencionales," Consejo Nacional de Electricidad, Cartagena, febrero de 2009.

Bono de Desarrollo Humano y Pensiones," (Ecuador: Ministerio de Inclusión Económica y Social), <u>http://www.pps.gob.ec/PPS/PDS/BDH/INF/InformacionyServicios.aspx</u>, sitio acedido 5 de Abril, 2013

Buiter, Willem, "Carbon Offsets: Open House for Waste, Fraud, and Corruption," (Maverecon:2007) <u>http://blogs.ft.com/maverecon/2007/07/carbonoffsets.html/</u>

Buri, Alexandra, Ing., "Proyectos Registrados Ante la Junta Ejecutiva MDL. Coordinadora de la Autoridad Nacional MDL. (Ministerio del Ambiente. Quito, Ecuador: Marzo, 2013)

"Caso San Pablo de Amalí/Central Hidroeléctrica San José del Tambo: Situación de los Derechos Humanos y de la Naturaleza" (Quito: Comisión de Paz y Verificación para el caso San Pablo de Amalí, Marzo, 2013)

"Centrales cercanas a areas de explotación minera," mapa, (Quito: Acción Ecológica, 2011)

"Clean Development Mechanism Project Design Document Form (CDM-SSC-PDD): San José del Tambo Hydroelectric Project, Version 03, (United Nations Framework Convention on Climate Change –UNFCCC: June 2007)

"Concesión Hidráulica para Hidrotambo S.A. para la Central Hidroeléctrica San José del Tambo," (Agencia de Aguas de Guaranda: 20 de noviembre, 2003)

Constituciones de 1998" (Washington D.C.: Political Database of the Americas) http://pdba.georgetown.edu/constitutions/Ecuador/ecuador98.html#mozTocId771894

Constitution of 2008 in English: The Constitution of the Republic of Ecuador," Political Database of the Americas, (USA: Georgetown University), Last Updated: January 31, 2011.

"Construcción de hidroeléctrica enfrenta a comuneros y empresa," (San Pablo de Amalí,

Bolivar: El Universo, 25 de noviembre, 2012),

http://www.eluniverso.com/2012/11/25/1/1447/construccion-hidroelectrica-enfrentacomuneros-empresa.html

- "Contrato de construcción: Hidrotambo S.A. y el Cuerpo de Ingenieros de Ejército," (Quito: 16 de octubre, 2006)
- "Contrato de Permiso de Generación para la Construcción, Instalación y Operación del Proyecto Hidroeléctrico San José del Tambo", (CONELEC: 8 de marzo del 2012)
- "Correa bewails China negotiations," (China: Taipei Times, December 7, 2009), http://www.taipeitimes.com/News/worldbiz/archives/2009/12/07/2003460330
- "Criminalización de la protesta social. Un recuento desde el retorno a la democracia" (Programa Andino de Derechos Humanos (PADH): Quito, Ecuador 2012), endnotes. <u>http://www.uasb.edu.ec/padh_contenido.php?cd=3911&pagpath=1&swpath=infb&cd_centro=5&ug=pu#24</u>
- David Reyes, "Fundamentos de rechazo, objeción y desconocimiento al: Estudio de Impacto Ambiental Definitivo de la Central San José del Tambo," (Acción Ecológica: Quito, Abril, 2007)

David Reyes, "Las represas como mecanismo de privatización del agua, apropiación de las tierras y venta del aire," (Abya-Yala: Quito, Agosto 2010),

Del Pozo, Tge H., Ing., "Informe Técnico No. AG.G-2003-33" del Informe del Perito y Notificación de Adjudicación de Agua," (Agencia de Aguas de Guaranda: 17 de febrero, 2003)

"Desplazamientos," (Quito: Comisión Ecuménica de Derechos Humanos-CEDHU, April, 2013) <u>http://vimeo.com/64245941#at=0</u>

"ECUADOR: Aumenta número de campesinos acusados de terrorismo." Agencia Tegantai: Ballenitasi.org, 2012, <u>http://www.ballenitasi.org/2012/11/ecuador-aumenta-numero-de-campesinos.html</u>

"Ecuador busca exportar energía limpia," (Canal Azul 24: Quito) Agosto del 2013, <u>http://www.canalazul24.com/?p=19134</u>

Ecuador: lucha en Jimbitono en contra de hidroeléctrica: solidaridad urgente de movimientos sociales de Cuenca" (Biodiversidad en Am´rica Latina y el Caribe, Macas: 2006),

http://www.biodiversidadla.org/Principal/Secciones/Noticias/Ecuador_lucha_en_Jimbito no_en_contra_de_hidroelectrica_solidaridad_urgente_de_movimientos_sociales_de_Cue nca "Ecuador lucha por los pueblo ancestrales: Correa," (Quito: teleSURtv, 10 de agosto, 2012), <u>http://www.youtube.com/watch?v=7qH-sit9TqI</u>

"Ecuador's most spectacular waterfall threatened by Chinese-funded hydroelectric project," (U.S.: International Rivers, March, 2013) <u>http://www.internationalrivers.org/resources/ecuador-s-most-spectacular-waterfall-threatened-by-chinese-funded-hydroelectric-project</u>

Edmundo Flores and Tim Merrill, "Recent Economic Performance," *Ecuador: A country study,* (Washington, D.C.: Library of Congress Federal Research Division, 1989).

Eduardo Gudnyas, "Alternativas al Desarrollo Después de la Elecciones en Ecuador" (Acción y Reacción: Marzo, 2013) <u>http://accionyreaccion.com/?p=565</u>

Eduardo Gudynas, "El buen vivir más allá del extractivismo" Prólogo a: La maldición de la Abundancia, por Alberto Acosta. (Quito, Ecuador: SwissAid y AbyaYala, 2009).

Eduardo Speck Andrade, "Response to Request for Review for the CDM Project Number 1298," <u>http://cdm.unfccc.int/Projects/DB/TUEV-</u> <u>SUED1187627873.55/ReviewInitialComments/RRYSV8DNN9VKAIR01BJNBT1JM</u> <u>G8AZ0</u>

El agua, un derecho humano fundamental, (Quito, Ecuador: CEDHU, Agosto del 2009), site accessed March 25, 2013, <u>http://www.rebelion.org/docs/113450.pdf</u>

"El Cambio Climático en el Ecuador," (ForoClima, INAMHI: Quito, 2013) http://www.inamhi.gob.ec/foroclima/2013/Foros%20Nacionales/IV%20Foro/C.%20CLI MATICO%20EN%20EL%20ECUADOR%20%28MA.%20JOSE%20GALARZA%29.p df

- "Electrogen S.A., Ecoluz Canada Inc., Deal No. 2447609040," Securities Data Company Worldwide Mergers & Acquisitions - Comprehensive Transaction Report, (Thomson Information Services Inc. August 15, 2012)
- Entrevista a Alberto Acosta: La 'revolución ciudadana,' el modelo extractivista y las izquierdas críticas, Franck Gaudichaud, (Upsidedown World: 2013) http://www.rebelion.org/noticia.php?id=163177

Entrevista con Boaventura de Sousa Santos, "Economía verde: la conciencia máxima del capitalismo," (America Latina en Movimiento: 2012) http://alainet.org/active/50095&lang=es

"El Plan Nacional para el Buen Vivir," (Ecuador: Un esfuerzo colectivo: Sitio acedido el 19 de abril, 2013), <u>http://plan.senplades.gob.ec/un-cambio-de-paradigma</u>

"El potencial hidroeléctrico del Ecuador se duplicó en 6 años," Ministerio de Electricidad

y Energía Renovable. 7 de febrero, 2013. <u>http://www.energia.gob.ec/el-potencial-hidroelectrico-del-ecuador-se-duplico-en-6-anos/</u>. Sitio visitado el 20 de marzo, 2013.

- Esperanza Martinez, *et al.* "Dejar el crudo en tierra o la búsqueda del paraíso perdido. Elementos para una propuesta política y económica para la Iniciativa de no explotación del crudo del ITT," (Polis, Revista de la Universidad Bolivariana, Volumen 8, Nº 23, Quito, Ecuador: 2009) <u>http://www.scielo.cl/pdf/polis/v8n23/art19.pdfhttp://www.bce.fin.ec/documentos/Publ</u> <u>icacionesNotas/Catalogo/Cuestiones/XXIV-II-05Aviles.pdf</u>
- Espinoza Díaz *et al*, "Registro oficial 4 de noviembre, 2005," Aprobación de la Licensia Ambiental No. 004/005 del hidroeléctrico San josé del Tambo, (Tribunal Constitucional: 4 de noviembre, 2005) <u>http://www.derechoecuador.com/index2.php?option=com_content&do_pdf=1&id=15</u> 98#anchor243382
- Esteban Cevallos, "Plan de Desarrollo y Ordenamiento Territorial (PDOT)," (Chillanes, Gobierno Autónomo Descentralizado Municipal del Cantón Chillanes, 2012)
- "Estudio de Impacto Ambiental Definitivo de la Central San José del Tambo," (CONELEC: Septiembre, 2004)
- "FECAB-BRUNARI: Noticias principales Bolívar," (Fecabrunari: 22 agosto, 2012)
- Fernanda Vega, "¿Tránsito civilizatorio o modernización capitalista?" (La Tendencia, FLACSO, Abril/Mayo del 2012)
- "Ficha técnica del proyecto San José del Tambo," Estudio de Impacto Ambiental Definitivo de la Central San José del Tambo, (Quito: CONELEC, 2004)
- "Freedom of Press in Ecuador: A Chill Descends," (Quito: The Economist, July, 2011) http://www.economist.com/blogs/americasview/2011/07/freedom-press-ecuador

"Glaciers: Andean glaciers could disappear in upcoming years, study says," Climate Wire, (E&E Publishing: January, 2013)

Gloria Chicaiza, "El Enclave Minero de la Cordillera del Condor" (Ecuador: Acción Ecológica, 2010) <u>http://cdhal.org/sites/cdhal.org/files/doc/document/enclave-minero-cordillera-del-condor-enclave-minero-cordillera-del-condor.pdf</u>

Gottinger, Paul, "Correa and Ecuador's Left: An Interview with Marc Becker" (New Left Review, February, 2013), <u>http://upsidedownworld.org/main/ecuador-archives-49/4123-correa-and-ecuadors-left-an-interview-with-marc-becker</u>

"Hidro tambo enfrentamientos," Teleamazonas Guaranda, November 1, 2012, <u>http://www.youtube.com/watch?v=sqnc8CaqFlY</u>

"How Much of the World's Energy Does the United States Use?" (United States: U.S. Energy Information Administration, 2010) http://www.eia.gov/tools/faqs/faq.cfm?id=87&t=1

Huanacuni Mamani, F. "Buen Vivir / Vivir Bien Filosofía, políticas, estrategias y experiencias regionales andinas," (Coordinadora Andina de Organizaciones Indígenas, Lima, Peru: 2010).

"Impactos de la Minería en el País," Boletín Verde No. 67, (Quito, Acción Ecológica: 1999) <u>http://www.accionecologica.org/alerta-verde-el-boletin-de-ae/1278-67-impactos-de-la-mineria-en-el-pais</u>

"Intro to the CDM," (Carbon Market Watch: 2013), http://carbonmarketwatch.org/learn-about-carbon-markets/intro-to-the-cdm/

"Inventario participativo de recursos hídricos" (Quito: SENAGUA) http://www.agua.gob.ec/inventario-participativo-de-los-recursos-hidricos/

James Petras, "Ecuador: Left-Center Political Regimes versus Radical Social Movements." (Global Research: Center for Research on Globalization) February 12, 2013.

Javier Astudillo Farah, "Aprobación de la Licensia Ambiental No. 001/06, para la construcción y operación del Proyecto de L/T que interconectará la futura Central Hidroeléctrica San José del Tambo con la S/E CEDEGE en operación de EMELRIOS S. A.," (Tribunal Constitucional: 2006) http://www.derechoecuador.com/index2.php?option=com_content&do_pdf=1&id=48 0#anchor406363

Joanna Cabello, "The Politics of the Clean Development Mechanism: Hiding Capitalism Under the Green Rug." (Steffen Böhm & Siddhartha Dabhi (eds): 2009) Chapter 18

Katherine Brahic, "Green' Funding for Coal Power Plants Criticised," (*New Scientist:* February 2009)

Larry Lohmann, "Six Soundbites on Climate Markets," (The Cornerhouse, UK: 2008) <u>http://www.thecornerhouse.org.uk/sites/thecornerhouse.org.uk/files/Soundbites2.pdf</u>

Laurel E. Phoenix, Lynn Walter, Critical Food Issues: Problems and State-of-the-Art Solutions Worldwide, (ABC-CLIO, Santa Barbara, CA: 2009)

Letter sent on May 4th, 2012 by the San Pablo de Amalí community organization to president Rafael Correa.

"Los glaciares en Ecuador se encogen: Riesgo para la soberanía alimentaria," Noticias del Cambio Climático (Edita Entrepueblos: 2007) http://www.wrm.org.uy/actores/CCC/Boletin001.pdf

Lynne Phillips, *The Third Wave of Modernization in Latin America: Cultural Perspectives on Neoliberalism.* (Lanham, MD: Rowman & Littlefield) 1998

- Marc Becker, "Building a Plurinational Ecuador: Complications and Contradictions," (Socialism and Democracy: August, 2012) <u>http://www.yachana.org/research/ulcuango.pdf</u>
- Marc Becker, Indians and Leftists in the Making of Ecuador's Modern Indigenous Movement (North: Carolina: Duke University Press, 2008)
- Max Mader and André Rothenbuler, Editors, *How to Challenge Illegitimate Debt: Theory and Legal Case Studies,* (Aktion Finanzplatz Schweis, Basel, Switzerland: 2009)

Mijeski and Beck, *Patchakutik and the Rise and Decline of the Ecuadorian Indigenous Movement* (Ohio, U.S.: Ohio University, 2011)

- OFICIO Nro. 160 MV-0603, (Quito: Instituto Nacional de Estadísticas y Censos-INEC, 6 de junio, 2006)
- "Opportunities in the Electric Sector, 2011," (Globaltrade.net, 2011) <u>http://www.globaltrade.net/f/market-research/text/Ecuador/Energy-Coke-Oil-Gas-Electricity-Opportunities-in-the-Electric-Sector.html</u>

"Otra vez prepotencia y abuso policial en San Pablo de Amalí," (Bolívar: Federación de Organizaciones Campesinas de Bolívar: FECAB-BRUNARI, 31 de Octubre de 2012)

- Pablo Davalos, Entrevista Por Verónica Gago y Diego Sztulwark, Pablo Dávalos: "El centro del problema no es el neoliberalismo, es el capitalismo." 29 de junio, 2011, <u>http://www.pagina12.com.ar/diario/dialogos/21-165993-2011-04-11.html</u>
- Patricio Escobar, "The New Labor Market: The Effects of the Neoliberal Experiment in Chile" (Latin American Perspectives: April 2013) http://lap.sagepub.com/content/30/5/70.extract

Paúl Mena Erazo, "Ecuador apuesta su crecimiento a la minería a gran escala," (Quito: El País Internacional, 12 de enero, 2012) http://internacional.elpais.com/internacional/2012/01/12/actualidad/1326385590_917311. html

Professor Erin Daly, H. "Ecuadorian Court Recognizes Constitutional Right to Nature," (Wilmington, DE: Widener Environmental Law Center, Widener University, July 2011).

- "Programa de gobierno de la unidad plurinacional de las izquierdas," (esfuerzo colectivo: 14 de enero, 2013) <u>http://albertoacosta2013.com/plan/</u>
- "Proyectos de Generación Eléctrica Paralizados," (Quito: CONELEC, Febrero 20, 2012) <u>http://www.conelec.gob.ec/images/documentos/doc_10120_Generación%20en%20Construcción%20Paralizados%20Febrero%202012.pdf</u>

Rachel Conrad, *Represados*, film documentary, (Youtube: June, 2012), <u>http://www.youtube.com/watch?v=Y2DnL76BJY8&list=PLlQdGA3gyJbneIkc3ZdcC</u> <u>L3m_58-95X11</u>

Rafael Correa, interview, "Rafael Correa: Ecuador's Path" (The New Left Review 77, September-October, 2012), <u>http://newleftreview.org/II/77/rafael-correa-ecuador-s-path</u>

"Revocan prisión preventativa en el juicio de terrorism contra dirigentes en el caso San Pablo de Amalí," (Bolívar: Fecab-Brunari, 5 de diciembre de 2012)

Reyes, David. "Informe sobre el proyecto de la central hidroeléctrica en San José del Tambo Canton Chillanes Provincia Bolívar." (Quito: Acción Ecológica, June, 2012), bullet point 1

"Rip Offsets: The Failure of the Kyoto Protocol's Clean Development Mechanism," (Berkeley, California: International Rivers, November, 2008)

Ricardo Buitron, "Reconquista del espacio latinoamericano. Corredores biológicos y corredores multimodales en el Ecuador" (CLACSO: 2007) <u>http://biblioteca.clacso.edu.ar/ar/libros/becas/semi/2004/buitron.pdf</u>

"Salta en Ecuador el conflicto del agua," (Quito: Ecuador Inmediato, Febrero de 2007), <u>http://www.ecuadorinmediato.com/index.php?module=Noticias&func=news_user_view&id=54981&umt=salta_en_ecuador_conflicto_del_agua</u>

"San Pablo de Amalí: Perseguidos Políticos – Criminalización de la lucha social," (Guaranda: Federación de Organizaciones Campesinas de Bolívar, FECAB-BRUNARI, 27 de febrero de 2013)

"Stanford Study May Stir Debate On Limiting Costs In Climate Bills," Carbon Control News (carboncontrolnews.com). Posted March, 7 2008. Not online.

Susan L Cutter, "Race, Class, and Environmental Justice," Progress in Human Geography, (Columbia SC: University of South Carolina, 1995).

Susan Nysingh, "The Yasuní-ITT initiative: Dreaming of Keeping Oil in the Soil," (University of Michigan, April, 2012), <u>http://deepblue.lib.umich.edu/bitstream/handle/2027.42/90914/Nysingh_Thesis_SNR</u> E April 17-

title_page%5B1%5D.pdf;jsessionid=16CEC740038A1FCCBECDDD40B9F7450B?se guence=1

Temen Quedarse Sin Agua," (periódico La Hora, La Paz, Marzo: 2007), <u>http://www.lahora.com.ec/index.php/noticias/show/547051/-</u> <u>1/Temen quedarse sin agua.html#.UX2sJRzOJIQ</u>

Thomas Leonard, "Encyclopedia of the Developing World," (London: Taylor & Francis: 2006)

"Tierra y Vida se Solidariza con la Lucha de Camunidad de San Pablo de Amalí," (Guayaquíl: Unión de Organizaciones de Pequeños Agricultores de la Costa, 1 de noviembre de 2012)

Tim Webb and Terry Macalister, "Carbon Trade Wrong, Says Lord Browne," (UK: *The Guardian*: March 8, 2009), http://www.guardian.co.uk/business/2009/mar/08/oilandgascompanies-carbon-emissions.

Timothy Gardner, "Blue Source To Capture Kansas C02, Up Oil Output," (Reuters, August 22, 2007), http://www.planetark.com/dailynewsstory.cfm/newsid/43843/story.htm

"Título IV: De los Usos de Aguas y Prelación, Artículo 34," Ley de Aguas: Número 369, General Guillermo Rodrigo Lara, Presidente de la República, <u>http://www.oas.org/usde/environmentlaw/waterlaw/documents/Ecuador-</u> Ley de Agua (1972).pdf

Trujillo, Manuel *et al.* "Petición al Sr. presidente constitucional de la república Rafael Correa Delgado. (Quito: 9 de Julio, 2012).

Vandana Shiva, *Staying Alive: Women, Ecology, and Survival in India*, 1st Edition, (New Delhi: Kali for Women, 1988) http://www.arvindguptatoys.com/arvindgupta/stayingalive.pdf

Walter Alecón, "Informe Visita San Pablo de Amalí y Sectores Aledaños," Oficio No. DE-07-0613, (CONELEC: 4 de marzo, 2007)

"World Report 2012: Ecuador 2011," (Human Rights Watch: January, 2012) http://www.hrw.org/world-report-2012/world-report-2012-ecuador

"Yanquan Coal Mine Methane (CMM) Utilization for Power Generation Project," (Shanxi Province, China), <u>http://cdm.unfccc.int/Projects/DB/TUEV-</u> <u>SUED1169658303.93</u>

Zaitchik, Alexander, "To Get to the Gold They Will Have to Kill Every One of Us: The

most-storied warrior tribe in Ecuador prepares to fight as the government sells goldladen land to China," (Salon, February 10, 2013).

Zhagui, Lizardo, "Cuestionan informe official ante Naciones Unidas Sobre Criminalización a Defensores de la Naturaleza," (Agencia Ecologista de Información: Tegantai. 15 de Noviembre, 2012).

"13.4.3 Water Resources" Chapter 13, Latin America, IPCC 4th Assessment Report, (Geneva, Switzerland: 2007) section 13.4.3, http://www.ipcc.ch/publications_and_data/ar4/wg2/en/ch13s13-4-3.html

Archival footage covered:

Meetings in San Pablo de Amalí, archival footage, 2007,

Campaign speech, president Rafael Correa, archival footage, 2006

Local farmers, meeting with the governor of Bolívar, archival footage, February 28, 2007.

Local farmers, meeting with the Ministry of Defense, archival footage, 2007

Interviews: 17 total

1. Interview with Alexandra Buri, Ecuadorian National Coordinator of the UN Clean Development Mechanism, Rachel Conrad, Quito, Ecuador, January 2013.

2. Interview with engineer David Reyes, Audio recorded, Rachel Conrad, Quito, Ecuador, January 2013.

3. Interview with Acción Ecológica employee, Meeting of Defenders of Water, San Luís de Pambil, filmed by Rachel Conrad, April, 2012

4. Interview with David Batker, telephone, Rachel Conrad, April 30th, 2013

5. Interview with Ramiro Gordillo, Technical Manager, Hidrotambo S.A., Rachel Conrad, (Cumbayá, Ecuador: May 18, 2012)

6. Interview with David Reyes, Rachel Conrad, electronic correspondence, November, 2012

7. Interview with Ramiro Trujillo, mayor of Cantón Chillanes, Bolívar, Rachel Conrad, April, 2012

- 8. Interview with David Reyes, Acción Ecológica offices, Quito, Ecuador, Rachel Conrad, December, 2012
- 9, 10, 11, 12, 13, 14: Interviews with farmers from the region, Rachel Conrad, April, 2012.
- 15. Interview with community member, recinto Vainillas, April, 2012

16, 17, 18. Interviews with farmers from the region, San José del Tambo parish, January, 2013