

## A Path Toward Peace: Mining and Sustainable Development in Intag, Ecuador

India Brahm '19, Patrick Robinson '19 | University of Virginia

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Nestled in the lush cloud forests of Ecuador's Imbabura province sits the megabiodiverse<sup>1</sup> Intag valley. Since the mid-1990s, Intag has been the scene of a violent conflict involving three transnational mining corporations, several agricultural communities, and the Ecuadorian state. In the past, Inteños have ousted two mining companies via protests and other direct action measures. With the backing of the newly-developmental Ecuadorian regime, CODELCO, a Chilean transnational, has recently become the first to establish a sustained presence in the region. The mining project remains in the "exploratory" phase, with copper extraction set to begin this year. Projected consequences include the forced relocation of at least four communities, mass desertification, the extinction of several species, and severe deterioration of local water quality.<sup>2</sup>

Some community members have been enticed by high wages and the promise of economic opportunity to work for CODELCO. Many, however, espouse a vision of peace and development that stands in marked contrast to that promoted by the state. This is *Sumak Kawsay*, an indigenous Andean cosmivision that emphasizes environmental preservation and regeneration, satisfaction of basic needs, political decentralization, participatory democracy, and respect for indigenous knowledge, culture, and territory.<sup>3</sup> Defensa y Conservación Intag (DECOIN), an organization founded in the 1990s in response to proposed mining activity, is a principal proponent of this vision of peace. It supports several local initiatives, such as a coffee cooperative and ecotourism project, that advance its vision of an alternative development strategy for the region.

Both India and Patrick have lived in South America and are fluent in Spanish. In the spring of 2018, Patrick lived in this community for several weeks establishing relationships and conducting field research. Many Inteños are concerned that the initiation of extraction in 2019 will reignite local tensions, threaten the agricultural livelihoods and ecotourism activities that serve as the primary source of income for many people, and do irreparable harm to Intag's traditional culture, cooperative social relations, and rich ecology. We therefore understand our project as an intervention that supports existing initiatives and the development of sustainable economic opportunity, thereby contributing to a vision of peace based on *Sumak Kawsay*.

### I. **Project Vision #1: Expand the documentation of water quality degradation**

*A. Objective and Methodology:* Local activists, municipal employees and DECOIN have established a campaign to test the water quality at 13 distinct points in *La Reserva Comunitaria de Junín* (a principal locus of mining activity) every month. Activists record measurements of pH, conductivity and total dissolved solids (TDS) in parts per million. However, the tests have been cut back from twice to once per month due to a shortage of financing. Documentation of this sort is essential; environmental damage must be recorded if the communities are to successfully petition for a change. Ecuador's constitution is among the most progressive in the world; it stipulates both the "Rights of Nature," and the basic human right to a clean environment, including clean water. Some activists hope to mobilize this documentary evidence to bring a case to the Inter-American Court of Human Rights or Ecuador's Constitutional Court.

We propose to increase the frequency of documentation of water quality in Junín from once to twice a month. We will cover project expenses including breakfast and lunch for municipal employees, a daily wage for a community guide, and equipment maintenance. Advanced exploration, which entails drilling deep perforations in the earth that contaminate the water table, has recently expanded to the nearby communities of Cuellaje and Cerro Pelado as well. Accordingly, we will expand the documentation of water quality to these areas. We will work closely with DECOIN to purchase new testing equipment, consult with community members to plan a water testing route, choose specific testing points, and identify, train, and pay community members to undertake this documentation. We will fund this activity for a total of six months.

*B. Result:* By expanding the documentation of environmental degradation in Intag, we seek to empower local communities to protect their natural resources and exercise political agency within the legal framework of the state rather than through militant action. This approach will mitigate the risk of future violent conflict and promote constitutional justice.

### II. **Project Vision #2: Strengthen existing economic alternatives to extractivist activity**

<sup>1</sup> Refers to an area that harbors a high percentage of the world's endemic species. The Tropical Andes Biodiversity Hotspot is the most diverse of the world's 36 hotspots according to the Critical Ecosystem Partnership Fund. Ecuador is one of 17 megabiodiverse nations according to Conservation International.

<sup>2</sup> Japan International Cooperation Agency (JICA), Metal Mining Agency of Japan (MMAJ). "Informe Final sobre la Exploración Mineral de Cooperación Técnica en las áreas de Junín y Cuellaje, Republica del Ecuador." Marzo 1996. 1-539.

<sup>3</sup> Caria, Sara, and Rafael Domínguez. "Ecuador's Buen Vivir: A New Ideology for Development." *Latin American Perspectives*, vol. 43, no. 1, Jan. 2016, pp. 18-33; Merino, Roger. "An Alternative to 'Alternative Development?': Buen Vivir and Human Development in Andean Countries." *Oxford Development Studies*, vol. 44, no. 3, 18 Feb. 2016, pp. 271-286.

*A. Objective and Methodology:* DECOIN and other organizations have established a network of income-generating activities as alternatives to mining work, including an organic coffee cooperative, ecotourism project, and women's artisan collective. However, the scope of these initiatives is mostly limited to regional markets. To strengthen the coffee cooperative, we propose to leverage our existing ties to Charlottesville coffee retailer Grit to facilitate a strategic partnership between Grit and *La Asociación Agroartesanal de Caficultores Rio Intag* (AACRI). Grit has expressed an interest in pursuing this type of supply chain partnership. During our first weeks in Intag, we will collect data on aspects of local coffee production and sale including the associated costs, pricing, and output that would make a pilot program tenable. Then, we will propose a short-term pilot contract for Grit to purchase and resell AACRI coffee. In the process, we will learn how we can extend this type of partnership to other retailers to create the beginnings of an export market in the mid-atlantic region. To help defray the upfront cost of initial market exploration, we will allocate a small subsidy to AACRI so the start-up costs are not prohibitive. Here, India will draw upon her three years of experience with the Charlottesville Angel Network conducting due diligence on the viability of new ventures and connecting them to capital. By creating access to a relatively affluent and socially-conscious market in Charlottesville, these measures will establish a platform to increase the income of coffee producers and strengthen AACRI's potential as an alternative to mining work. Because the women's artisan collective, *Mujer y Medio Ambiente*, produces organic agave-fiber bags to package AACRI coffee, these measures will also augment the income of its members, expand economic opportunity for women in the region, and open the possibility of future partnership with this organization.

*B. Result:* These attempts to strengthen existing sustainable economic alternatives to mining work will prevent conflict in Intag by augmenting the income of some of those whose livelihoods are most immediately threatened by environmental degradation. Further, they will become the building blocks of a sustained peace in the region by demonstrating that a community development strategy based on environmental conservation and compatible with agricultural lifeways is possible.

***Project Sustainability:*** We intend these initial two months as the beginning of a long-term engagement between UVA students and faculty and the affected communities. We are currently engaged in establishing an internship program with DECOIN through the Office of Global Internships, and have already formed an undergraduate research team that includes two 2nd-year students to study the conflict. These measures, combined with our efforts to market AACRI coffee in Charlottesville, will result in long-term student engagement and project sustainability. The involvement of David Edmunds, Director of the Global Development Studies program and our faculty advisor, will also help ensure project continuity; Edmunds has facilitated sustained student engagement with local communities all over the world by recruiting successive cohorts of students to participate in research. Moreover, we plan to leverage our relationships with the International Studies Office, Global Studies Department, and McIntire School of Commerce to lay the groundwork for a J-term course that will bring a group of UVA students to the Junin ecolodge once a year. During our time in Intag, we will work with local ecologists, DECOIN and UVA Professor of Sustainable Development Brad Brown to develop a curriculum that addresses the social and environmental consequences of extractivist activity, the ecology of the region and the multiple dimensions of its political conflict. We will also identify suitable local professionals necessary to implement the course. Thus we hope to provide a valuable educational experience for UVA students and generate income for the 30 co-owner-operators of the Junin ecolodge, thereby further fulfilling our second objective of strengthening sustainable economic alternatives to mining work.

Upon our withdrawal, we will leave behind water testing equipment and a network of engaged citizens trained to record water quality measurements in their communities. We will fund their work for an additional four months after our departure from the country, during which time we will explore alternative funding sources and encourage future UVA teams to allocate funds to finance this documentation. Once we have supported the AACRI-Grit partnership and UVA J-term program in their initial stages, we believe that they will develop into financially-viable and self-sustaining projects that require only periodic monitoring and evaluation programs undertaken by key stakeholders to identify strategic adjustments.

***Conclusion and Evaluation:*** By promoting a legal action and economic development strategy based on local initiatives, compatible with environmental conservation, and aimed at preserving territorial autonomy and democratic self-determination, we believe we can help engender a regional peace based on *Sumak Kawsay*. In order to assess the human dimension of our engagement, our monitoring and evaluation framework will include a qualitative dimension, which will seek to evaluate our interventions via interviews and focus groups with key local stakeholders. In order to assess our material impact, will also include a quantitative dimension, which will enable future teams to gauge our success via key metrics such as the regularity with which water quality readings are taken in given communities and the commercial value of AACRI coffee sold in Charlottesville and beyond.