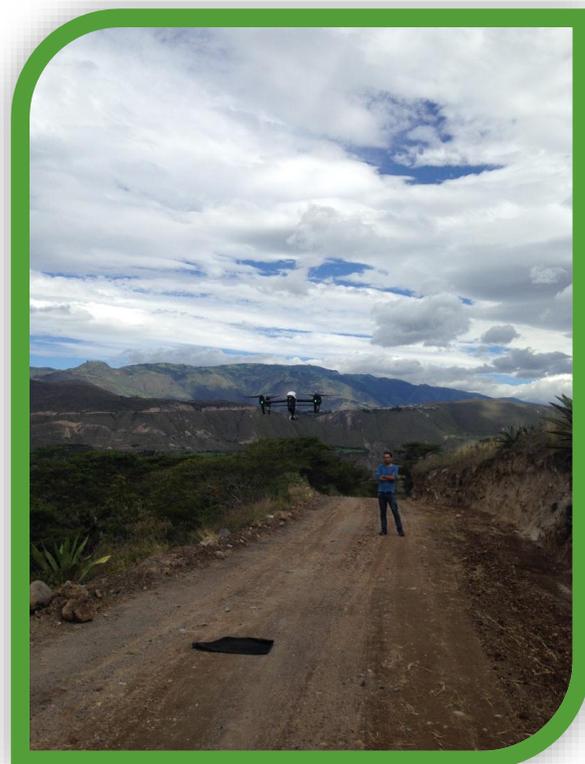


# Risk assessment and inclusive planning: a study of the community of Tapiapamba in Yachay Knowledge City



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## Project Overview

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Department: Geography

Organization: Territorial Management Division,  
Yachay EP

Location: Yachay, Imbabura, Ecuador

Mentor: Dr. Sarah Moser

Fellowship Duration: June 1, 2016—July 15, 2016



## About the McBurney Fellowship Program

Through McGill's Institute for Health and Social Policy, the McBurney Fellowship Program supports students in international service programs related to health and social policy in Latin America. McBurney Fellows serve abroad in organizations working to meet the basic needs of local populations. One key aspect of this fellowship is its mandate to make a significant contribution to improving the health and social conditions of poor and marginalized populations through the delivery of concrete and measurable interventions. Students and their mentors identify issues, make connections with local organizations, and develop a strategy for the fellowship. The views expressed in this document are the opinions of the fellow, and do not necessarily reflect the opinions of the IHSP.

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## Fellowship Overview

As a new city being constructed in northern Ecuador in an attempt to move Ecuador's economy away from the Quito-Guayaquil dominance, Yachay promises to improve the quality of life in the province of Imbabura where it is being built. This effort starts in the very plot of land where Yachay is currently being built, a plot that envelops or borders seven pre-existing communities: Santa Rosa, Armas Tola, Las Mercedes, San Antonio, San Vicente, El Puente, and Tapiapamba. Rather than push these pre-existing communities out of the way and displace their residents, as many new cities around the world do, Yachay rather seeks to improve their quality of life and incorporate them into Yachay's larger projects. This mission begins with assessing the current state of the communities and conveying this information to the management of the city of Yachay.

## Objectives

Our objective was to do a social and structural assessment of the community of Tapiapamba, and to then relay this information to the Office of Territorial Management where we were working. This mission was designed to hear the complaints of the residents of Tapiapamba as well as assess the state of their infrastructure in order to aid in the company's future interventions.

## Background/Context

Of the seven communities within or bordering the plot of land where Yachay is being built, Tapiapamba is the most vulnerable. Approximately 200 years old (according to the community's current president Duval Mina), the current population of Tapiapamba is around 270 residents, the majority of whom work as laborers at Yachay. Of all of the communities, Tapiapamba is also the farthest away from Yachay's metropolitan core, where construction is currently focused and where most of the other communities are located, making it the most difficult community to assist and the one which will require the most direct (and likely expensive) assistance in the future.

One can break down the issues faced by Tapiapamba into three categories: physical risks, environmental risks, and social problems. Within physical risks -- referring to

problems in Tapiapamba's infrastructure -- the two biggest issues are the lack of adequate access roads and the inadequate state of housing. The state of access roads were one of the biggest concerns expressed by the community, with both main roads for driving and walking being almost completely made of loose dirt (with one exception being the main road of Tapiapamba, which is made of cobblestone for one section near the center of town). This makes many parts of the community extremely inaccessible, an issue that has further consequences for matters such as trash collection and accessibility to disabled residents, and in general makes life more difficult for members of the community. As for housing, although there is a range in the state of housing in Tapiapamba, it is virtually all deficient. Most urgently, many houses have holes in the roofs or walls, exposed foundations, and other miscellaneous problems, such as exposed piping. All of these issues leave the houses vulnerable and will only become exacerbated as time goes on.

The community's environmental issues can be broken down into cliffs, dust in the air, waste management, and sewage problems. As a community built on a mountainside, the cliffs of Tapiapamba are its most obvious issue, and are what often strike people when they first enter the community. The housing is tiered, so almost every housing plot has a slope either behind and/or in front of it, which, coupled with serious erosion, makes these plots extremely vulnerable, especially if the area experiences an earthquake like the one that recently devastated Ecuador's coast.

Additionally, because most of these cliffs are unprotected, they (along with other uncovered land) introduce large amounts of dust into the air, which can present serious health issues to members of the community, especially the children who primarily play in dusty areas. Thirdly, much of the ground in Tapiapamba is covered in trash since there are no receptacles throughout the community and trash is only collected in one spot near the main road (about three quarters of the way down the mountain), an area which community members living higher up can find inaccessible. This trash, on top of being aesthetically unappealing, presents health issues to the community, and makes the land less fertile for growing. Finally, the community's sewage system is inadequate, leaving many tubes exposed and often broken and allowing sewage to leak onto the ground. This presents health risks for surrounding vegetation and for community members who live close by.



The community's social issues can also be broken into four categories: unemployment, a lack of resources for people with disabilities, the lack of public space and green spaces, and the lack of a nursery. Unemployment is the issue that residents mentioned most when we asked them about the community's major problems, and is so serious that many people have had to leave Tapiapamba to search for work. While many people are able to work for Yachay, they have not received jobs to the extent that they were promised, which affects not only life within the community but also residents' perceptions of Yachay itself. The lack of resources for people with disabilities is tied into Tapiapamba's larger problems of inaccessibility, and is an issue that Yachay will have to fix in conjunction with the local government of the Canton of Urcuquí, in which Yachay and Tapiapamba are located. The lack of public space and green spaces in Tapiapamba deters social interaction between the community's residents, and especially leaves few places for children to play, forcing them to instead play in dirt-filled areas where the dust can cause respiratory problems. Finally, the lack of nursery is felt in the number of children that could be found in Tapiapamba during the days that we visited, when most children would have been in school. The nursery in Tapiapamba is in ruins and a new one has not popped up in its place, leaving many children around the community whose parents or grandparents must stay home to watch, which can add an extra burden if those parents could otherwise be seeking much-needed employment.

### Activities

During our time working for Yachay, we made five trips to Tapiapamba to collect our data. During each trip we would ask residents what they felt were the largest issues facing the community, and about their hopes for the future of their relationship with Yachay. Additionally, we took GPS points to later make maps of community for Yachay to use, and collected both written and photographic information based on the risks listed above (see "Background/context") that we could later organize and give to Yachay.

When not in Tapiapamba, we worked out of the Office of Territorial Management, compiling our information into files on each of the community's inhabited lots that were then given to Yachay and can be used to help direct the company in taking further action. Each document contained general information about the plot of land, identified specific risks, and included photos of the structures in each lot. This information was also organized into a final comprehensive report that summarizes the files, and a Powerpoint presentation which we shared with the rest of the office to familiarize them with the issues facing Tapiapamba.

## Challenges and Successes

We were able to create 90 different risk-assessment reports for homes and public spaces in the community, providing a detailed template for the Territorial Management division to consult when deciding which interventions to carry out in the area.



In addition to the individual reports, we created maps to indicate public spaces, primary roads, dangerous cliffs, and the general distribution of homes in the settlement. We compiled our maps and observations into a written proposal, and a Powerpoint presentation which we presented to our

colleagues in our final week in Yachay.

During the course of our investigation we had proposed having a town-hall style meeting with the whole community to learn more about their concerns and what they would like to gain from their relationship with Yachay, but because of scheduling difficulties we were not able to have this meeting. Instead, our first-person accounts were achieved through one-on-one interviews as we conducted structural reviews on our five visits to the community.

## Questions Raised

The division of our time between actual fieldwork (trips to Tapiapamba) and time spent in the office was adequate, so we had enough time to write up our findings. Moreover, we received assistance and mentorship from all our colleagues, but we had one person with whom we worked primarily on the Tapiapamba project. This was helpful because we were able to go to him with all our questions and he provided just the right amount of oversight while allowing us to formulate our own questions and work independently.

The time spent in Yachay could have been more efficiently allocated to conducting our field research as much of our time in the first two weeks was spent doing independent research to contextualize the situation of Yachay and Tapiapamba. Had we spent more

time in Tapiapamba, we would have been able to conduct even more thorough research to include in the final proposal given to Territorial Management Division.

### Training and Mentoring

During our first week in Yachay, we were given extensive material to familiarize ourselves with the context and master plan of the city. Our colleagues made themselves available to us to answer any questions we had.

Before we began creating individual risk-assessments for each plot of land, our colleague sat down with us to create a sample one, going through each section step-by-step to make sure that we understood the format and what kind of information to include. We conducted one sample site assessment together to practice consistency in the method of data collection we would be using in Tapiapamba.

We had a number of Skype meetings with our mentor, Sarah Moser, during the course of our fellowship. We would report on our observations and experiences and Sarah would pose questions for us to answer and identify areas where we could do further research. She also helped us to focus our research and identify key people who we should be talking to in order to get relevant information. Furthermore, we were in constant communication through WhatsApp.

Prior to our departure, we had met with Sarah to discuss how Yachay came into being, the major players involved, as well as its importance in the national context. Sarah had visited Yachay before and conducted prior research on the project and this background knowledge was very helpful when navigating the first few weeks in the city and framing our questions to employees of the company.

### What did you learn?

In Yachay, we were able to witness the extensive negotiations needed to accomplish large scale projects. The Territorial Management Division worked closely with the municipal government of Urcuqui, various farmers associations, as well as the Community Outreach Division. Specific to New Cities is the question of jurisdiction between the public enterprise that controls the city and the municipal government which controls the territory surrounding the city. It was especially interesting to observe this dynamic first hand. We were surprised by how extremely long term and slow moving constructing a new city is. Yachay is not far along in its development timeline considering how long it has been in the building process.

Our mentor during the program taught us many informal interviewing techniques and ways to collect information from the members of the community in ways that did not feel invasive or paternalistic. In terms of applied skills, we all became much more

familiar with the use of QGIS as a mapping software and our ability to process collected data improved.

Because of the nature of the office, much of what we did was improvised once we got to the field. It was important in this setting to be flexible with plans and goals because of the interconnectedness of the work and the amount we relied on other people's inputs and skills. It is difficult to discern if this is a product of New Cities, or Ecuador, or our specific environment, but learning to adapt to the constantly changing requirements was crucial in the process of our internship.

### **Community Implications and Further Work**

The Territorial Management Division benefited because we were able to do a comprehensive review of the area in a short amount of time, something which they themselves admitted they wouldn't have been able to do because the department has few members who manage numerous projects at the same time.

The people of Tapiapamba benefited because it was the first time that people of Yachay had visited there to hear and record their concerns in their own words. In the past, representatives from Yachay and the municipal government had visited and made promises which were never realized, something they resented. We made clear that we were not there to promise any specific interventions, but rather to catalogue the range of deficiencies in their community in order to design a comprehensive solution

The potential realized impact is unclear because of the lack of stability in Yachay and the lack of funding. The community of Tapiapamba would likely benefit if the risks detailed in the proposal were acted upon.

#### **How might your fellowship make a difference for the people you worked with?**

The primary stakeholders involved in our project were the residents of Tapiapamba and our colleagues at the Territorial Management and Community Management Departments of Yachay EP. The residents of Tapiapamba valued our work because we spoke with them honestly and expressed an interest in their daily concerns about their community. Without making promises of specific interventions, we made a commitment to listening to their concerns, documenting them thoroughly, and conveying them to the Territorial Management division with targeted proposals.

#### **What would the next steps be to translate your findings into policy action?**

The initiative of Yachay to include the communities surrounding the city is impressive for New Cities and is necessary to achieve the level of progress and innovation they aspire to have. It is important for Yachay to continue to include the input of the

surrounding communities and a formal and regular forum should be developed to do so. This would be facilitated by the Community Outreach Division and would include members from all other divisions involved as well as the presidents of each community in an open town hall setting.

### **Program Evaluation**

This fellowship allowed us to practice the skills learned in geography classes (data collection, map-making skills, urban social theory), in a real-world setting. It was a valuable experience to frame questions, plan what data we would need to collect, design interviews and construct maps in a short timeframe.

We valued the opportunity to travel to a new country and practice our Spanish language skills in a field of our academic and professional interest. We found that the immersion was a really great experience, and forced us to apply ourselves in order to have deeper conversations with people and further the goals of our research project.

We also valued the experience of working in a small, DIY, office environment. It was especially inspiring to see direct action being taken by every member of the office.

#### **Any advice for future fellows?**

If you are afraid of dogs, this trip is not for you! There were tons of stray dogs in and around Yachay, and especially ferocious ones in the community of Tapiapamba (twooper household!).

Be open to doing a variety of different tasks during your fellowship, and when given the chance to step out of the office and go into the field, say yes (on one of our trips we spent the day outside learning about drone photography and watching one in action). If you feel like your talents are not being utilized, ask for more work around the office. In general, people were excited to show us what they were working on and to train us in what they needed help on.

#### **How useful was it to interact with other fellows?**

We regularly had brainstorm sessions about our progress so far and what tasks we should be working on in order to complete our project in the timeframe we had. Tasks were delegated to each of the fellows in order to accomplish the research we needed in the time we were given. It would have been very difficult to complete the project individually.

#### **Any suggestions for how to improve the program?**

Although not completely necessary, we would recommend that the details of the internship were specified prior to departure to ensure efficiency of the work done in the limited time abroad.

**Was your project part of a larger/ongoing program? If so, what are the next steps?**

The next steps would be for the Territorial Management division to do a cost-analysis for the different interventions we proposed and identify which ones would be the most feasible. Once the risk management programs were in place, it would be useful to continue to collect information about the perceptions of the work Yachay was doing in Tapiapamba to ensure that the funds were being budgeted in a way that improved the quality of life of the members of the community.

We would definitely recommend this organization to someone else because they were extremely hospitable and welcoming, the work that we did was substantive, and Ecuador was a beautiful country to discover. The student would need to have a strong grasp of the Spanish language, be familiar with map-making software, and able to live in a rural, sparsely populated setting for long stretches of time. It would also be helpful to have some prior knowledge of master-planned cities and community outreach.