



Bolivia - Fascinating, authentic, experiencing the sad effects of climate change firsthand

Before arrival

First of all, if you are searching for Field Study projects right now, there might be an option for a follow-up project. Please contact the colleagues at the KTH FS-Office if you are interested and they can help you with our or the NGO's contacts! ☺

Both of us stumbled across the possibility of doing a field study as our master thesis soon after starting our master's at KTH in one of the information sessions. We were fascinated by the thought of traveling to a country of the global south and learning about its culture, people, and traditions. Doing this and conducting a thesis project that might have a positive impact in the future were strong motivators for us. This led to the idea of taking on our thesis project together. To get inspiration for a project, we contacted several professors at our department but also browsed the canvas forum of thesis topic suggestions posted by other professors. We discovered a topic dedicated to investigating Atmospheric Water Harvesting Technologies as an alternative to water provisioning in rural Bolivia during the dry season. The idea originally came from Save the Children Bolivia (NGO) and in close contact with a researcher working at SLU. Because of the technical nature of the project, he forwarded the topic to our professor at KTH. As we both preferred going to a Spanish-speaking country the project seemed well suited. We expected to receive the possibility of traveling to some rural Bolivian communities and talk to the people, but other than that we tried to avoid having too many expectations, as we wanted to be open to any experiences that we would make during the stay. We were surprised by the planning effort of the NGO providing us with a detailed schedule on an hourly basis. In preparation for the trip, we got any vaccinations recommended when traveling to Bolivia as well as purchasing some gifts to bring from our home country. Magnus also spent some time during the months in advance to refresh his Spanish, because we knew we would need it for all kinds of communication, but especially for the interviews. Apart from this we spent lots of time researching the different climates and local conditions we were going to be in, including several online meetings as preparation for the stay with the NGO. This included personal safety risks and how to avoid/reduce them. We additionally were required to do two Certificates for Save the Children including one for safeguarding and one for personal safety and security. During our time planning the whole stay we were very concerned about if we would have to get a visa but ended up travelling on a 90-day tourist visa in coordination with the NGO and KTH, which worked just fine.

Upon arrival

We planned to have the arrival day and the following day for recovering from travelling. The time seemed sufficient as we didn't feel any kind of jetlag. Upon arrival in Santa Cruz de la Sierra we were greeted by warm tropical weather which instantly elevated our mood, coming from Swedish February weather. Additionally, the colleagues at Save the Children welcomed us in every of the cities we travelled to in such a nice way! The head of the emergency department even came from La Paz to welcome us for our arrival in Santa Cruz de la Sierra. The total time of our field studies were 8 weeks of which we spent 5 traveling through Bolivia and visiting communities. The remaining 3 weeks we spent analysing and interpreting all the data and our results from the country office of Save the Children Bolivia located in La Paz.



Financials

Bolivia can be considered one of the poorest countries in Latin America. Thus, it is also relatively cheap and not touristy. This allowed us to eat out daily, which in most cases was way cheaper than going to (super-)markets and purchasing groceries for cooking ourselves. Especially the street- and market-kitchens where the locals would eat usually were super cheap and quite delicious – mostly with questionable hygiene conditions, but that's what we signed up for and wanted to experience as well. We used Splitwise to keep track of our expenses, which worked great. Overall, we think it was way cheaper than living a comparable time in Sweden – especially since the costs for the flights were covered by the FS grant.

Accommodation

Save the Children offered to take care of booking accommodation for us. However, we ended up with booking accommodation ourselves, as it was often cheaper than the Hotels suggested by them. During our time in larger cities in Bolivia (Santa Cruz de la Sierra, Cochabamba, La Paz) we were able to book affordable Airbnb's. These offered the benefit of being equipped with a kitchen and washing machine, which were super useful as we were only travelling with clothes for one week and could prepare breakfast at home. During our stay in smaller cities, we stayed in hostels or hotels due to the unavailability of Airbnbs. Hotels were generally more expensive than staying in Airbnb's, and Hostels were most often about the same price but offering less comfort, which was one of the other reasons why we tried to avoid them. Overall, most of the accommodations we stayed were in decent condition. There were some places that did not have a hot shower or heating in general, but this was only suboptimal in the cold areas of the Altiplano (high region in Bolivia) – in the lower, tropical parts it was no issue, obviously.

Project

Many parts of Bolivia are facing severe water provisioning issues with the rural and poor areas affected the heaviest. Current initiatives and practices including gravity-fed water projects, pumped water systems and hand pumps have been unable to resolve these issues, whilst novel technologies lack a proper socio-economic assessment. Further, top-down government approaches to implementing water infrastructure have not been successful. Therefore, the NGO Save the Children (SC) initiated a project with the goal of providing potable water and improving the health of children within the area. Their efforts resulted in an official application for funding at the Norwegian Development Bank “Innovasjon Norge”. The project in specific focuses on evaluating Atmospheric Water Harvesting Technology in the context of rural Bolivia via a Multi Criteria Decision Analysis. The goal of this is to allow for an informed decision-making if Save the Children Bolivia should succeed to apply for funding the application of these technologies.

Our typical day during the first 5 weeks of community visits looked like the following. After waking up and making and/or having breakfast, we were picked up by an employee from Save the Children Bolivia who drove with us to the communities for the day. The number of communities we visited daily varied and depended on their distance to the town we stayed in. After arriving at the communities, we would introduce ourselves to the community leaders at the main square or building of the community. This was followed by us explaining the topic of our study and what kind of interviews we want to conduct, including what demographics of the interviewees are important to us. We would then sit down with the first of our two focus groups and conduct the interview in Spanish with support of the Save the Children employee. We included a small ranking game at the end of the two interviews for each community to make our methodological approach participatory. Once the interviews were done, we sometimes took pictures with the community residents and of the water infrastructure, if close by. Sometimes we were invited to a drink with them before we either drove back or to the next community.



In the subsequent three weeks in La Paz, we started analysing and interpreting our intermediate results in form of a presentation, which we presented to the NGO. This included the data on everything surrounding the topic of potable water in the communities, climate data as well as some demographic data. We are planning to create a flyer in Spanish that can be provided to the communities after finalising the project to share with them the results of our study.

Country

Bolivia is a very fascinating and culturally diverse country. About 60% of the people are Indigenous and about 35% are “mestizos” (having mixed Indigenous and European ancestry), making Bolivia stand out compared to other Latin American countries. The people are generally very friendly, welcoming and open if you approach them. However, there is definitely a noticeable difference between the different regions within Bolivia, as we found the people in the rather tropical regions to be even more outgoing and open. Native languages like Aymara, Quechua, Chiquitano and Guaraní are very present due to the high percentage of indigenous people. Spanish is spoken by most of the people apart from some older people on the countryside. The country felt very open, due to the diversity in ethnics but we experienced a “gringo” treatment in more touristy places. Throughout our stay we learned lots about the diverse Bolivian culture reaching from the rainforest in the northwest up to the high mountain regions in the west. Local people were happy to answer all kinds of questions if we approached them on the street and were very helpful. We felt that there were really really keen on sharing their culture, when you truly showed authentic interest. Another interesting experience was that there was a fuel shortage in Bolivia during our stay. This led to us being stuck in the car on our return from a community to the next major city. We were able to resolve the issue with the help of our contacts at the NGO and took a gas-powered bus, but our colleague that was travelling with us was stuck for 4 days having to stay with the car and wait for fuel.

Leisure and social activities

We’ve spent our spare time going to the gym, cafes, restaurants, did some sightseeing, hiked a +6000m mountain and joined the carnival. As we travelled to many places as part of the field work, we experienced a regular change of environments but everywhere we went, there were lots of things we could do. We were able to make some friends (both Bolivian and international) along the way, but as we were traveling frequently it made keeping in touch harder. Overall, we had the best experiences when being taken out / to places by locals themselves, because these already opened spaces that we would not have been able to get into by ourselves.



Sustainability

We tried to travel most of the distances by bus and longer ones by night bus. Unfortunately, we had to take one domestic flight, as the roads were blocked due to heavy rainfall and by people protesting due to the fuel shortage. Taking the bus was the best both economic and environmentally friendly option, as there are no passenger trains in Bolivia. To travel to the communities, we went by cars from the NGO as there was no other way of reaching them. We were able to continue eating vegetarian in the larger cities as they had sufficient options there. In smaller cities and especially in the communities we were more or less obliged to eat meat as there were no other protein sources, and we would otherwise have to only eat carbs in form of rice, bananas and potatoes during the first weeks. Additionally, meat is a really big and important part of the local cuisine that we also wanted to experience and be part of.

SDGs that can be linked to the project include SDG 2 (Zero hunger), SDG 6 (Clean water and sanitation), and SDG 11 (Sustainable cities and communities). SDG 6 shows the strongest connection as the project is aiming towards identifying technological options that could provide clean potable water in critical areas. The latest SDG assessment finds that over 6% of Bolivia's population remains with insufficient access to potable water sources and only 68.6% of Bolivia's population being able to use basic sanitation services (Sachs et al., 2024). Both figures underscore the importance of the study to the assessed area. Furthermore, SDG 11 is addressed by the project, as the investigation of potential technological alternatives has the target of assessing their sustainability in several dimensions, and their integration with existing water practices.

Other recommendations and observations

- Don't stress about booking your accommodation a day in advance
- Ask locals for recommendations regarding restaurants, activities, culture, etc.
- Try to bring up the confidence and talk to locals (!!!!)
- Linked to that, if in any way still possible, try to learn the language as much as possible – they appreciate it a lot, even if you “just try the basics”
- Ask a lot of questions!! Obviously also tell about your own culture, if asked, but we made the experience that most people were super keen on sharing the local traditions and culture more!
- Traveling by bus is very comfortable, as the buses often offer lots of leg room
 - Book tickets at the bus station as they are cheaper than online
- Try local food (streets, markets) – but prepare yourself for questionable hygiene and possibly digestive problems here and there mentally
- Book tourist activities locally as they are often cheaper than online