

INSTRUCTOR VERSION

The Rio Beni Bridge: Collision of different visions on development and the environment in Bolivia

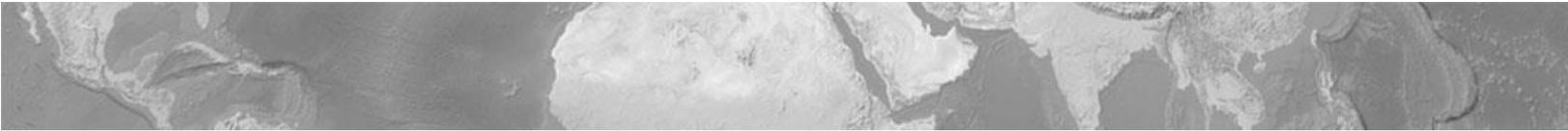
Learning Objectives

1. Identify the local divisions that can produce multiple, conflicting “community” views on major planning decisions.
2. Explain how visions of “development” can vary, depending on whether actors value income, the environment, indigenous rights, public health, and other considerations.
3. Consider the common tradeoffs in large-scale infrastructure projects between individual and collective good.
4. Realize that there can be frequent tensions between urban and rural actors over major development projects.
5. Recognize that there are often dozens of “indigenous” groups that can be divided along different political lines, ethnic backgrounds, livelihood priorities, and historical interactions. Articulate how the history of land reform in Bolivia created tensions between indigenous groups from the highlands and lowlands that continue to this day.
6. Describe some of the main actors involved in infrastructure development projects, both internal and external. Understand the influence international organizations have and their shifting roles as states re-centralize and other international actors (in this case, Chinese companies and investors) become major players.

What Actually Happened

The national government is currently building the bridge through both urban areas (Option 1), in what the author believes was ultimately a politically motivated decision, rather than one concerned with the environment, indigenous rights, or even financial costs. In 2010, government officials announced that the bridge would be built where they wanted it and not where the townspeople preferred, even though the latter was also the preference of the Norwegian/Bolivian Consortium that designed the bridge. It was to cost \$16.5 million, and the Bolivian government had an agreement with the Inter-American Development Bank (IADB) to fund it by transferring funds from an existing IADB highway construction project in another part of the same region. When the townspeople and the Rurrenabaque municipality found out, they organized themselves to analyze existing information. They were able to show that the bridge, as designed—and the process for arriving at that design—violated a number of regulations that the IADB has stated internationally that it observes. Among these violations was that no formal study of alternatives had been completed. So in 2012, the IADB Washington DC office brokered a deal to study an alternative design and to allow the two towns, along with the government, to decide on a final location. Option 2, the downriver alternative, was studied and found to be feasible, although due to a much longer bridge span, it was expected to cost 50 percent more than the original government proposal.

At this point, the national government announced in January 2013 that it had requested the IADB to return the funds to the original highway project, and that the bridge would be funded instead by the Bolivian National Treasury (Tesoro General de la Nación). In February 2014, the government announced that the contract to build the bridge had been awarded to a Chinese



company (SINOPEC) that has been constructing petroleum industry infrastructure in Ecuador. The townspeople, who were still trying to organize resistance, successfully delayed construction. In early 2015, Bolivia held national elections at the municipal and departmental level. Nine days before the elections, a national elections office noted a technical mistake that disqualified the opposition party from running across the department. As a result, starting at the end of May 2015, the municipal government in Rurrenabaque became the same party as the national government, MAS. Within three weeks of the municipality changing hands, the Chinese company started to work on the bridge.

Finally, a savings of \$5 million or even \$7 million is minor, even in Bolivia. The municipal government of Rurrenabaque believed it could find investors willing to make up the difference, which the IADB also mentioned as a possibility, if the government agreed to place the road outside of the town center. The economic viability of the sugar cane factory is also debatable. Construction was completed, also by a Chinese company, but only 5 percent of the sugar cane needed to run the factory has been planted. The factory has cost \$190 million to construct, and the government is considering spending \$80 million more to plant the sugar cane. The author, however, carried out a feasibility study for a Bolivian organic company (El Ceibo) in 2008 and estimated that it would cost \$1,200 per ton to produce sugar cane in this region, compared to the \$600 per ton the company currently pays for organic sugar from Paraguay. Therefore, any money that may be “saved” will likely go towards financing the sugar cane operation, as opposed to any social policies.

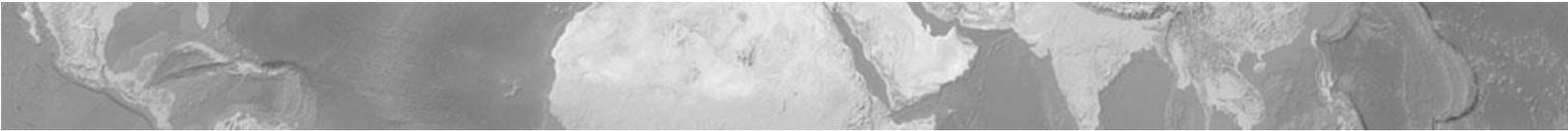
If students are interested in reading the case study author Dan Robison’s blog about the events surrounding this case and other topics in Bolivian politics, rural development, agriculture, and environmental conservation, see this [web page](#).

Summary

Since 2006, the town of Rurrenabaque has been in conflict with the national government over the placement of a proposed bridge across the Beni River. The national government has insisted on building the bridge using the cheapest and fastest possible option, and in doing so, would place the access through the urban core of Rurrenabaque and cut into mountains along a major geological fault. The townspeople, whose livelihoods largely depend on tourism, have insisted that the bridge be built downstream, where it would skirt the town and leave the scenery intact, even though the financial cost would be higher. However, other residents in the region support the national government’s decision, complicating the scenario. Ultimately, the bridge has become the battleground for different visions of development held by people who are divided on racial and regional political lines.

Background

Prior to 1952, Bolivia’s population was concentrated in the Andean highlands where most indigenous peasants were ruled over by feudal landlords. During the 1952 national revolution, these large landholdings, or *haciendas*, were broken up and given to the peasants, while those who did not choose to stay were then free to move around the country. This coincided with major advances in the control of tropical diseases and parasites, which supported a population explosion. The mass migration that began then, from the highlands to the tropical lowlands, continues today, leading in part to the demand for the bridge in this case study.



New networks of roads built into the lowlands, across all countries sharing the Amazon Basin, facilitated this demographic shift. Military dictatorships that dominated the Amazonian countries from the 1960s to the 1980s accelerated the exploitation of the region's natural resources and sought to gain political control by occupying and populating the remote lowland areas where access had previously been limited to air and river travel. The *Carretera Marginal de la Selva* (Jungle Edge Highway) was initiated in the dictatorship period and was to run parallel to the Andes Mountains from Argentina to Peru, literally on the “edge of the jungle.”

While many of these governments treated the tropics as “empty” lands, the lowlands have been populated since prehistoric times by lowland indigenous groups (who officially speak 32 different languages). A relatively small *mestizo* population (mixed indigenous and European descendants) also emerged in the lowlands after many different economic booms drew foreigners to the Amazon to extract quinine, rubber, gold, timber, macaws, feathers, and hides. While these groups demanded roads and better access, they have been at best ambivalent about the migration from the highlands, to the point that they are now a minority in a land where they moved around freely not too long ago.

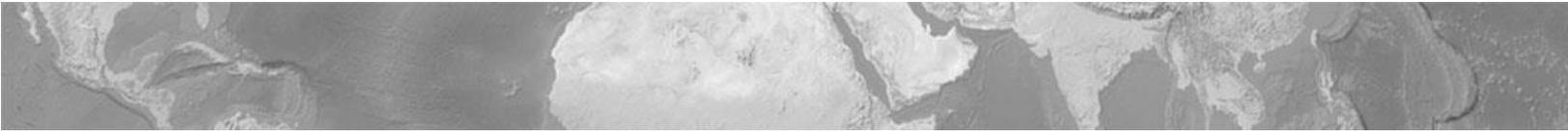
By the 1990s, democratically elected governments continued to build roads and expand into the lowlands, supported by neoliberal policies that intensified natural resource extraction, an export economy, and the expansion of agriculture. Influenced by movements around the world, some began to be concerned that these economic priorities were threatening environmental conservation and indigenous rights, which led to a major allocation of land to national parks and indigenous homelands. Between 1991 and 2004 the percent of nationally protected land went from 0 to 18 percent, with the highest concentration in areas of high biodiversity, where the Andes meets the Amazon. Officially recognized indigenous territories also increased from an insignificant area to roughly 20 percent of the country in the same period.¹

The jewel of the Bolivian National Park system is Madidi National Park, one of the most biodiverse parks in the world as it extends from lowland rainforest and natural savannas up to glaciers at 6,100 m (20,000 ft). As a result of the scenery, biodiversity and national parks, tourism has grown steadily to almost 35,000 foreign tourists yearly in the towns where the bridge is to be built: Rurrenabaque and San Buenaventura. Across the Beni River from Madid National Park is the Pilon Lajas Biosphere Reserve and Indigenous Homeland. On the western side, Madidi National Park extends to the Peruvian border, and on the other side of the border are another two Peruvian protected areas. Altogether these protected areas cover 4.2 million hectares (10.4 million acres) of mostly pristine land, with no access roads. The bridge would connect Rurrenabaque and San Buenaventura, the two towns that are the main gateway to this wilderness area on the Bolivian side.

Finally, the 1990s in Bolivia were also characterized by an ambitious decentralization program. The 1994 Law of Popular Participation² transferred 20 percent of national revenue to the

¹ Fundación Tierra 2011. Territorios Indígena Originario Campesinos en Bolivia: Entre la Loma Santa y la Pachamama. Versión PDF.

² Kohl, B. 2003. Democratizing Decentralization in Bolivia - The Law of Popular Participation. *Journal of Planning Education and Research* 23: 153-164



country's 311 municipalities based on population, and mandated grassroots participation in local planning, budget allocation and oversight.

In late 2005, Evo Morales was elected as the first indigenous president in the Western Hemisphere. He and his party (*Movimiento al Socialismo* – the Socialism Movement, MAS) remain in power today (2016). In reaction to the neoliberal period, the Morales administration joined Venezuela, Ecuador, Nicaragua, Brazil, Argentina and Uruguay in upholding a leftist, populist agenda.³ In Bolivia, part of this shift has included the government's effort to reduce privatization—to reestablish ownership over the means of production (oil, airlines, mining) and central control over state resources.

Particularly relevant to this case study is the high priority given to “mega” development projects to grow the national economy, with a low priority given to the environment and, surprisingly, indigenous rights to the resources within their territories. No new protected areas or indigenous territories have been created in the last 10 years, and associated funding has been greatly reduced. Some initiatives from the central government have instead proposed to reduce the size of protected areas and indigenous territories and to allow for oil exploration within their boundaries.

A final relevant issue related to the Morales government is the concept of “*El Buen Vivir*” (“The Good Life”), which is loosely based on Andean traditional concepts that other states in the region, such as Ecuador, have also adopted. In theory, *El Buen Vivir* means that every individual has a right not just to economic development, but also to a healthy environment and cultural respect. Yet environmentalists accuse the current government of doing exactly the opposite, emphasizing economic development without regard for environmental and cultural concerns. This bridge has been a battleground for these ideas.

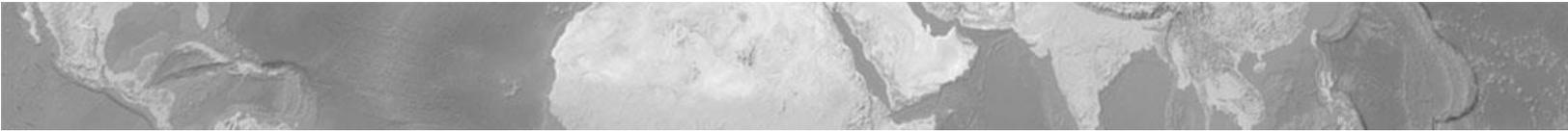
The proposed infrastructure

The bridge that is the focus of this case study is expected to cross the Beni River, the largest river that flows out of the Bolivian Andes, and join San Buenaventura on the north bank, in the Department of La Paz (each department is like a U.S. state), with Rurrenabaque on the south bank, in the Department of the Beni. Rurrenabaque, in particular has grown rapidly in the last 20 years (from 5,000 to 20,000 people), largely due to the growth of tourism.

The bridge has long been proposed, initially as part of the Jungle Edge Highway. Additionally, there are long-term plans to build a highway north to the Department of Pando. Currently the inhabitants of Pando have to travel an extra 500 km towards Riberalta to use a ferry river crossing and then back west to reach other key economic and political hubs in Bolivia. The current government also has long-term plans to industrialize agriculture by building a large sugar mill in the northern part of the La Paz Department. To work at the stated capacity, this new mill would require large trucks to make 300 trips per day across the new bridge, a rate 3.5 times higher than the estimates used to design the bridge.

In 2006, as part of the MAS political platform, the government arranged for a study by a Norwegian/Bolivian consortium (Carl Bro y CAEM) to design the bridge and its road network.

³ Weyland, K. 2009. The Rise of Latin America's Two Lefts: Insights from Rentier State Theory. *Comparative Politics*, 41(2): 145-164.



There were conflicts almost from the beginning. The national government wanted to build a bridge quickly and with the least financial cost, which placed the bridge through the middle of the towns, close to schools and public plazas, and into parts of the scenic mountains that run along a geological fault and provide the towns' only source of potable water. The consulting company proposed an alternative downriver site that would require a longer bridge and longer road network, but would place access roads outside of the main populated areas. The national government insists on its original proposal to go through the town of Rurrenabaque.

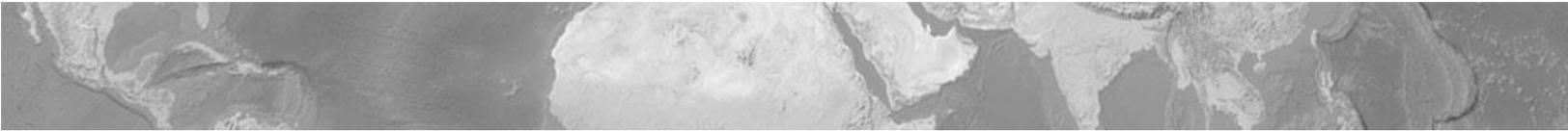
The bridge construction is at an impasse. The Rurrenabaque Municipal Government has refused to give permission. Local townspeople have been protesting, threatening to lead a months-long protest march to the capital city (La Paz) to capture global media attention, as the TIPNIS march did.⁴ Rural colonists, however, have created roadblocks and kidnapped some of the townspeople to force the issue, threatening to throw the region into violent unrest. The national government has decided to call you in, a neutral mediator whom all stakeholders trust, including national government decision-makers, the rural colonists, townspeople and local indigenous communities. All parties are tired of this long, drawn-out tension (and all ultimately want the bridge to be built somewhere in the region), so all have agreed that they will support whatever decision you help negotiate.

Actors & Institutions

The national government: The current government (MAS) has been in power since January 2006 and recently won a third election through 2020. Though internationally known for its climate justice stance and its “respect for Mother Earth,” internally it has been criticized for ignoring environmental and social issues in its infrastructure development plans. The overall priority is economic growth, particularly of poor communities, while environmental concerns and other social criteria beyond income are of lesser priority. On the other hand, the government has also implemented national social welfare and health programs, often funded by efforts to re-centralize ownership over national resource extraction. The effectiveness of these social policies, however, is debatable. Furthermore, the prices of Bolivia's export commodities, such as oil, gold and tin, have plummeted; therefore the financial sustainability of these programs and the state-owned companies themselves is in doubt. The national government's power base in support of the bridge has been the rural colonists, described below, as well as recent urban migrants from the highlands.

The Rurrenabaque municipal government: Between 2000 and 2014, the same group of people had control of the Rurrenabaque municipal government, although the official political party changed. There were only two mayors during that time—one for two years, and his nephew for 13 years. The power base has been the townspeople, who in turn have decades-old economic ties with lowland indigenous people and ranchers in neighboring municipalities. For the entire time the MAS has been in power at the national level, the national government has considered the municipal government in Rurrenabaque (and the departmental government of the Beni) as

⁴ Between 2011 and 2012, the protest involving the Isiboro Secure Indigenous Territory and National Park (TIPNIS) seriously compromised the Evo Morales government's reputation as a protector of the environment and indigenous rights. The protest involved road blockades and two 350-mile marches to the capital in protest of a contested road that would cut the Park in half, affecting the 69 communities that live there. The first march involved over 1,000 indigenous participants and gained national attention after it was met by police attacks.



opposition political parties. In each of the municipal elections, local traditional groups have run against local MAS candidates and won. This has been a considerable source of tension. Generally, the local government maintains that by law it has the right to make decisions on the location of infrastructure that affects its residents, and it feels the national government does not recognize this right.

Rurrenabaque townspeople: The Rurrenabaque townspeople most opposed to locating the bridge through town are the “old” urban families, the urbanized descendants of lowland indigenous people and long-term migrants from the highlands. For the last 20 years, the direct and indirect source of income for almost all of these people has been tourists drawn to the national parks upriver and regional parks in nearby municipalities. Recent urban highland indigenous groups (laborers as well as small merchants) who have migrated to town also want to protect the mountain landscape and water sources and want the bridge road accesses to be far from schools, hospitals and the urban center. Some have also raised concerns that the bridge access road follows a geological fault line along the mountainous area, arguing that these mountains are already prone to landslides even under natural vegetation.

The rural colonists surrounding the town of Rurrenabaque: Between 1985 and 1989, a road was built connecting the southern part of the country with the north. This road construction was accompanied by land reform, where people from the highlands were given 25-hectare plots, much in the way that claims were staked in the late 1880s in the western U.S. The rural colonists produce most of the rice and fresh food consumed in urban areas, but they do not consider themselves to have benefited from the tourism boom. It should be noted here that President Evo Morales, though born on the Altiplano, was himself a highland indigenous colonist to the lowlands farther south where he became a coca farmer; he continues to be the head of the National Coca Growers association. The rural colonists want a bridge to be built as quickly as possible to support more efficient transport of their agricultural goods and allow them to begin growing sugar cane for the new mill being built to the north of San Buenaventura.

San Buenaventura townspeople: This town is much smaller than Rurrenabaque, and though it has the same rural/urban divide mentioned above, the proportion is very different. There are proportionally many more rural colonists, so the municipal policies have been in step with the national government, even if the few longer-term townspeople agree with Rurrenabaque.

Lowland indigenous groups: Though these groups were the original inhabitants, they are now a small minority and the group with the least voice. The three ethnic groups, Tacana, Masetene and Tsimane, regard the highland indigenous colonists as invaders who are displacing them from their lands and taking their jobs. The road built in the 1980s went through the middle of lowland indigenous territories, displacing many of these groups into more remote areas, which later were declared indigenous homelands. Lowland indigenous people generally have a vision of preserving the forest and the water and have a consequentially lower level of income than the rest of the population. They benefit from tourism as guides, cooks and riverboat drivers. They want to preserve the scenic nature of the town and to disturb the tourism as little as possible. In general, they are opposed to the current bridge and highway building; they see it as consolidating the economic and political position of highland migrants.

The Decision

As you prepare for the negotiations, your role is to identify a location for the bridge that will offer the greatest overall benefits to the many parties involved. Your options are as follows:

1) Build a relatively short bridge (370 m), with the access roads going through the middle of the towns. In this option, the access road would pass by schools, hospitals and public squares, raising concerns about air and sound pollution, as well as pedestrian safety. As this would require cutting into the mountains, townspeople and indigenous groups also worry that it would affect sources of fresh water, the mountain scenery and the tourist appeal of the currently quiet town of Rurrenabaque. However, building the bridge through town would allow for the use of existing roads as access points, cutting down considerably on the time it would take to build the bridge, and the cost. Transportation through town would also be easier for farmers and other businesses using the bridge. The \$7 million saved by building the bridge through town could also be reallocated to national poverty-reduction programs—which is important, considering that other government sources for funding social policies may be dwindling. Keeping the road within town may also reduce the likelihood of sprawl—i.e., the growth of a second urban ring around the road and bridge, if the bridge were built outside of Rurrenabaque. This choice would also strengthen the legitimacy of the national government by making it appear capable of standing by its decisions and guiding national economic development planning to attract foreign direct investment.

2) Build a longer bridge (1,000 m) downriver, with the access on ring roads outside the urban areas. As this is the option that townspeople and indigenous groups have been advocating for, it could be framed as a decision the national government made to uphold its indigenous rights and environmental justice stance, and to show that it remains committed to community input. This option would also ensure that the mountains and urban core would not be touched and, you hope, would have no effect on tourism. As noted in option 1, however, it is unclear if putting in ring roads would simply encourage sprawl. Furthermore, the environmental impacts of cutting through forests for the extra road extension are unknown—but they would not affect the national parks, at least. This decision, however, would take much longer to construct and would increase travel for area farmers as well as mill-related traffic. It is also the costliest option and would put the national government into greater debt and detract from social policies. Furthermore, it would thwart the benefits of Option 1, such as displaying to investors that the government can stand by its decisions.

3) Negotiate a different location for the bridge by going up the river from town so that the bridge would cross the river in a single span. This option is the cheapest. Because it would not require structures in the water, it would save approximately \$5 million, which the national government could re-route to national poverty-reduction programs. This option would not impact urban areas, and because of the steep terrain, it is also unlikely to encourage urban sprawl after the construction of the roads and bridge. However, environmentalists and the tourism industry have the biggest objections to this option, as it would impact the scenery and cut across the



corner of the Pilon Lajas Biosphere reserve, potentially affecting tourism and the environment. Many are also concerned that this option would destabilize the major geological fault line in this mountainous area, as well as the towns' water source.