

CRES 610

Deforestation, Climate Change, and Indigenous Peoples in Bolivia by Roselyn Poton

If you walked along Lake Concepción on August 26, 2020, you would have seen dead animals and massive amounts of dead fish floating on top of the polluted lake (González, 2020). Lake Concepción is located in Concepción, Bolivia in the Chiquitano/Monkoxi territories. The area around the lake is protected but local authorities say that settler Mennonites seeking to establish mechanized agricultural farms and cattle ranches come anyway (González, 2020; Romo, 2020). In Latin American countries like Bolivia, deforestation is mostly attributed to transnational demand for beef and soy but commodities like timber, oil and minerals also pose threats to the livelihoods of indigenous peoples land and homes in Latin American regions (Carrington, 2021, McKay & Colque, 2015). Current transnational interests for beef from Bolivia are coming from China and Russia where they've signed trade deals in 2020 (Carrington, 2021). Extractivist industries (i.e. large-scale mechanized agriculture, logging, mining, and cattle ranches) contribute to deforestation, climate change, and the dispossession of indigenous peoples. Indigenous peoples living in areas of the Amazon which spans across eight countries (Brazil, Bolivia, Peru, Ecuador, Colombia, Venezuela, Guyana and Suriname) are experiencing conflict over their land and natural resources and it threatens their livelihoods. This conflict extends beyond the borders of indigenous peoples' territories and to the larger global community. Establishment of monocrops for soy and cattle ranches for beef production in areas of the Bolivian Amazon, two main contributors to deforestation, stems from transnational demand for soy and beef. Deforestation exacerbates climate change through loss of trees which cycle water, produce oxygen, and store carbon dioxide. Carbon dioxide is a greenhouse gas (GHG) that contributes to climate change. Deforestation of the Amazon releases stored carbon and contributes to climate change in addition to environmental degradation (pollution, physical

CRES 610

Deforestation, Climate Change, and Indigenous Peoples in Bolivia by Roselyn Poton

altering of land, ecosystems disrupted, etc), a byproduct of unsustainable practices of extractive industries.

We are all social human beings in some way and are connected to one another through the air we breathe, the water we drink, and the land we use to grow food and develop. Climate change impacts the availability of natural resources and is a consequence of our social relations. How we relate to each other and nature impacts how and where we live because we all rely on the same natural resources (air, water, land). In this sense, climate change presents itself as a collective challenge to humanity. Cumulative actions of humans have caused environmental degradation (i.e. polluted water, air and land; destroyed or diminished ecosystems, etc.) that contribute to and exacerbate climate change (Foster, Clark, & York, 2010; Angus, 2016). About 80% of the carbon dioxide emitted since 1751 comes from the world's wealthiest countries which include the United States, China, and Russia compared to about 1% from the world's poorest countries which include Bolivia (Angus, 2016). These human actions, mediated by extractive industries and policies, are also dispossessing indigenous peoples of land and natural resources and are negatively impacting their health and well-being in disproportionate ways.

Environmental conflicts over land use and climate change are influenced by extractive industries and policies that support them. Evidence of climate change and its causes (i.e. deforestation and common practices performed by extractive industries) have existed for decades and the adverse effects (i.e. warmer temperatures, increased risks of flooding and wildfires, droughts, etc.) have been made known for the same amount of time (Foster, Clark, & York, 2010). Even with an abundance of evidence on the adverse impacts of climate change there has been a failure to act in enough meaningful ways to address it. This paper explores

CRES 610

Deforestation, Climate Change, and Indigenous Peoples in Bolivia by Roselyn Poton

socio-environmental conflict in Bolivia related to deforestation, climate change, extractive industries and indigenous peoples' rights to land and self-determination. I will attempt to “unpack” the conflict by using two theoretical frameworks from Christie (2006) and Christie et al (2008) which help reveal elements of the conflict in terms of episodic versus structural violence and negative and positive peace processes. Next, I discuss some social differences and power dynamics related to land conflict. The concluding paragraphs of the paper explore potential solutions to land conflict and deforestation. My goal is to illustrate concepts related to land use and conflict from an indigenous perspective, highlight connections between social relations with each other and the environment locally and globally, and present potential solutions to meaningfully address climate change, deforestation, and the dispossession of indigenous peoples either by physical loss of land or the loss of land by pollution and thus dispossessing indigenous peoples of health and wellbeing.

Theoretical frameworks on systems of violence and peace processes help provide a better understanding and highlight elements that contribute to land use conflict and deforestation in Bolivia. A systems view of violence in conflict recognizes two kinds, episodic and structural, and describes it in terms of time and “disparities of human wellbeing” (Christie, 2006). Episodic violence (direct violence) refers to actions that are quick, intermittent, or acute. Actions may lead to killing or harming someone or be an insult to their well-being. One example of episodic violence related to land conflict in Bolivia are the wildfires that result from clearing land to make space for cattle ranches and agricultural farms. The fires are a direct harm to the land and people in the area. The harms caused by the inhalation of smoke from the fires and destruction of land is a form of “insult” to the health and well-being of the indigenous people in Bolivia. It is also an

CRES 610

Deforestation, Climate Change, and Indigenous Peoples in Bolivia by Roselyn Poton

insult to humanity because it contributes to climate change which affects everyone on this Earth to some degree. In the case described earlier, the death of fish and wildlife, in the area of Lake Concepcion, can be considered episodic violence. The death of the animals and fish in and around Lake Concepción were caused by sodium phosphate pollution from runoff of fertilizers used by the agricultural farms nearby (González, 2020). A water test revealed that the lake in fact had 20 times more sodium phosphate (González, 2020). Access to fish, wildlife, water, and unpolluted land is diminished due to external actions by Mennonites establishing nearby agricultural farms, likely to meet transnational market demand, for soy. Episodic violence in the conflict over land use and deforestation in Bolivia occurs in relation to acts of structural violence.

Structural violence (indirect violence) refers to actions that are slow, continuous, or chronic. Like in episodic violence, it can lead to killing, harming someone, or be an insult to their well-being but actions can also include depriving people of basic needs. These actions are seen as “normal” or “legitimate”. Two examples of structural violence related to land conflict in Bolivia: Decree 3973 and the Land Use Plan (PLUS) (Carrington, 2021). These two policies are part of Bolivia's economic model according to Eduardo Franco, an environmental journalist in Santa Cruz, “It is a very extractive focused model and deforestation and fires are part of the economy, its very sad, but it is how it is in Bolivia,” (Carrington, 2021). Decree 3973 allows “controlled burns” in areas previously off-limits and PLUS opens up 9-10 million hectares of land to be cleared for agricultural use. Both policies encourage deforestation and are predicted to double cattle production to six million heads per year by 2030 and increase cattle and soy production in general (Carrington, 2021).

CRES 610

Deforestation, Climate Change, and Indigenous Peoples in Bolivia by Roselyn Poton

Christie et al (2008) provides a “Multilevel Model of Negative and Peace Processes” as a theoretical framework that can be used to analyze environmental conflicts occurring in Latin America at several levels: interpersonal, intergroup, and international. The model integrates positive peace processes with negative peace processes that includes overlapping circles of conflict, violence, and post violence that describe the “state of the relationship” and can be addressed using negative peace “reactive” interventions (nonviolent conflict management, violence de-escalation, and post violence peacebuilding). Positive peace processes include “proactive” actions that address the structural and cultural context of the conflict which influence the “state of the relationship” (conflictual, violence, post violence). For example, ending Decree 3973 is a “proactive intervention” that would change the structure of the conflict (positive peace intervention) as Marlene Quintanilla mentioned, “The cancellation of Decree 3973 would be a correct measure, the soils are not sustainable to sustain intensive agricultural production, the true value is in the forests,” (Carrington, 2021). Instead of waiting to see if the decree will do as predicted, doubling cattle production and increasing agricultural monocrops which cause deforestation and contribute to climate change, end the decree and prevent potential problems. One problem Quintanilla points to in her statement is the unsuitability of the soil to sustain agricultural practices common to large scale monocrops which are often intensive, unsustainable and requiring a lot of fertilizer and water resources. Satellite images of Lake Concepción from November 2019 and 2020, show a dramatic decrease in water levels in part due to climate change and increased frequency and duration of droughts (González, 2020). Christie et al (2008) describe positive peace as “transformations within and across institutions that rectify structural inequalities” and are promoted when marginalized voices, like indigenous voices, are given the

CRES 610

Deforestation, Climate Change, and Indigenous Peoples in Bolivia by Roselyn Poton

platform to have their voice heard on matters impacting their health, well-being, and rights to self-determination. Ending Decree 3973, like Quintanilla suggested, and PLUS is a positive peace process that would change the structure and have potential positive impacts such as protecting forested areas, mitigating climate change, and reducing risks associated with extractive industries (i.e. environmental degradation) .

Some of the social differences and power dynamics' involved in land conflicts related to climate change and indigenous peoples in Bolivia include differing concepts over land management and state support for agriculture and cattle. Policies like Supreme Decree 3973 and PLUS illustrate the way land and natural resources are viewed by the State. Based on State policies, meeting transnational demand for soy and beef is prioritized over preserving forests and its associated ecoservices that help combat climate change. The policies open up indigenous territories in Bolivia to settlers wanting to establish farms and ranches. This creates incentives to deforest land and pressure on indigenous communities trying to protect their territories. In areas where the land is protected and labeled “permanent forest production”, deforestation still occurs, settlers caught converting the forest into farms, ranches or logging illegally are fined only to continue on with their extractive activities (González, 2020; He, Agrawal, & Perfecto, 2019). This occurs in part because the State supports the activities through policies but also because indigenous communities managing the forest don't have adequate capacity and resources to protect their forests from illegal settlements. Daniel Yaquirena, President of La Central de Organizaciones de los Pueblos Nativos Guarayos (COPNAG), stated that monitoring of over 2 million hectares of forest is done with 13 staff and only two trucks, “Of course we know about illegal activities in the forests. But with no resources, what can we do?” (He, Agrawal, &

CRES 610

Deforestation, Climate Change, and Indigenous Peoples in Bolivia by Roselyn Poton

Perfecto, 2019). The Bolivian State and the countries, China and Russia, signed trade deals which have more resources to impose their development agenda to expand cattle and agriculture than the 13 staff members monitoring over 2 million hectares of forest placing the indigenous peoples in a position of less power.

For many indigenous peoples in Bolivia like the Chiquitano/Monkoxi and also the Guarayos indigenous peoples located a few hours away, there is more value in preserving forests and a different way of working the land (He, Agrawal, & Perfecto, 2019). According to Guarayos village elders, "... the people must obey the rules established by the creator *Ramoi* - by only taking what they needed from nature and always being grateful - otherwise, they would be punished (He, Agrawal, & Perfecto, 2019). Land titling process enacted through the Agrarian Reform allows indigenous people to claim land but in order to maintain land tenure they must prove productive use and this is another way that the State holds onto power over land. Proving productive use is easier to do by developing the land for agriculture and cattle, which is what the settlers do, then maintaining the forest and sustainably using resources (He, Agrawal, & Perfecto, 2019). The process to claim land and maintain tenure makes it difficult for territorial rights to be granted and creates an imbalance in power. The forest is a source of livelihood that the indigenous peoples use for food, shelter, water, income and is needed to help mitigate climate change and prevent further degradation of land as seen in Lake Concepción where the lake seems to have almost disappeared in a year (González, 2020). Deforestation and establishment and continued practice of large-scale mechanized agriculture, cattle ranches, and other extractive industries threatens indigenous people and sets their needs subordinate to State needs to and, through transnational demand for soy, beef, and other commoditization of nature (i.e. timber,

CRES 610

Deforestation, Climate Change, and Indigenous Peoples in Bolivia

by Roselyn Poton

minerals, oil) the global community. Indigenous peoples are asked to prove territorial rights using a process that has been imposed by the State not based on their own ways of organizing and governing. For example, defining the meaning of “productive use” in terms of economic benefit and not in terms of ecoservices and without regard to Earth’s natural limit. In areas where land is maintained by indigenous peoples, “deforestation is lower, more carbon is stored and less emitted, biodiversity is better conserved, and resources are more sustainably and fairly managed” (Rodríguez & Inruias, 2020). Increased wildfires, droughts, pollution, transnational demand for soy and beef, and lack of State support in managing forests all place Chiquitano and Guarayos indigenous peoples at a disadvantage when contending with people seeking to extract natural resources in their land.

Solutions to land conflict in Bolivia regarding indigenous peoples, climate change, and deforestation need to emerge from indigenous peoples themselves while the global community should be supportive and sensitive to what is proposed. There is no one solution to solving this conflict but Indigenous peoples do know how to manage their land fairly and sustainably. Areas in Bolivia owned and maintained by indigenous peoples have 2.8 times less deforestation than in other areas (Rodríguez & Inruias, 2020). “Bien vivir” or “living well” is recognized by the Bolivian constitution and is about living in harmony with nature and each other, a type of social ordering that takes into account nature and recognizes its limits and interconnectedness with all things. The Bolivian constitution passed in 2009 declares several indigenous rights including the right to self-determination and “to live in a healthy environment, with appropriate management and exploitation of the ecosystems”. The Mother Earth Law adopted in 2010 states that “in order to face climate change, we must recognize Mother Earth as the source of life and forge a new

CRES 610

Deforestation, Climate Change, and Indigenous Peoples in Bolivia by Roselyn Poton

system” based on several principles including “harmony and balance among all and with all things”, “people in harmony with nature”, and “collective well-being and the satisfaction of the basic necessities of all” (Bolivia, 2009). Solutions drawn from The Mother Earth Law would recognize the limits the Earth has in regard to greenhouse gases and not push those limits. Policies supporting cattle and agricultural expansion would be rejected when held up to the law because it would, and current policies have, lead to increased deforestation, GHG emissions, pollution, and exacerbation of climate change and associated negative impacts (i.e. flooding, droughts, land decertification, warming temperature, etc.). Earth has already exceeded the “planetary boundaries” of carbon dioxide, 350 part per million (ppm) and currently is at 416 ppm (Foster, Clark, and York, 2010 ; NASA, 2021). Continuing to support activities that increase carbon emissions at this point is irresponsible and wrong. Another solution posed by Quintanilla was to end Supreme Decree 3973, a policy currently in place that encourages deforestation. Members of the International Rights of Nature Tribunal in 2020 demanded that “governments stop agribusiness activities ... those that were initiated without environmental impact assessment studies such as, for example, the case in Bolivia of meat exports to China and ethanol production and biodiesel” (Earthsight, 2020). Members also called on countries that the Amazon occupies, including Bolivia, to “immediately repeal the legal provisions” that encourage deforestation and fires (Earthsight, 2020).

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CRES 610

Deforestation, Climate Change, and Indigenous Peoples in Bolivia by Roselyn Poton

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CRES 610

Deforestation, Climate Change, and Indigenous Peoples in Bolivia by Roselyn Poton

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CRES 610

Deforestation, Climate Change, and Indigenous Peoples in Bolivia
by Roselyn Poton

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