Agroextractivism and land grabbing in the production of *Agave tequilana* Weber Blue variety in Penjamo, Guanajuato, Mexico

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Abstract: Historically, tequila has been one of the preferred spirits in Mexico. Since 2018, tequila production in this country has grown exponentially. One of the main reasons is the capital investments, by multinational alcoholic beverage corporations towards the main Mexican tequila companies. The entry of multinationals facilitated the positioning of tequila in international markets and increased demand. The commercial logic of corporations has impacted the amount of agricultural, forestry, and rangeland land for the plantation of Agave tequilana Weber blue variety, in local productive dynamics, in customary agreements of access to land, causing techno-productive, economic, political, social, environmental and cultural in the territories where the monoculture plantation is carried out. This article analyzes the problem from political ecology, directing attention towards agroextractivism and land grabbing via leasing and sharecropping in the municipality of Penjamo, Guanajuato, Mexico. The methodology involves field trips, participant observation, interviews, georeferencing of the plots, and statistical and documentary analysis. It is concluded that agroextractivism and land grabbing for agave plantations accentuate economic, territorial, political, and environmental inequality at a local scale and affect pre-existing activities, such as grain production and livestock farming.

Keywords: land lease, inequality, local scale

YEL classification: P17

1 Introduction

Historically, tequila has been one of the favorite spirits nationwide. Mainly recognized for being a symbol of Mexican identity since the second half of the 19th century and to a greater extent in the mid-20th century. The period in which it had a greater presence in the foreign market was due to the decrease in the production of other distillates, mainly whiskey as an effect of the Second World War (Rodríguez, 2007 and Crespo et al. 2022).

In turn, the Mexican miracle, migration to the United States, and international trade agreements in the early 1990s, such as the North American Free Trade Agreement (NAFTA). Historical, social, economic, and political phenomena have driven the gradual growth of tequila production and export. However, none of these events influenced production to grow exponentially, as has happened in the last five years from 2018 to 2023. One of the main reasons for this growth is the capital investments and participation by multinational alcoholic beverage corporations (Bacardi Corporation, Fortune Brands, Brown-Forman, and Diageo) towards the main tequila companies (José Cuervo, Patrón, Casa Sauza, Herradura, Cazadores, Don Julio, and Madrileña). The entry of corporations macroeconomically boosted the positioning of tequila in international markets, increased demand, and with it the expansion and price of the raw material in local spaces, such as the case of the municipality of Penjamo, Guanajuato.

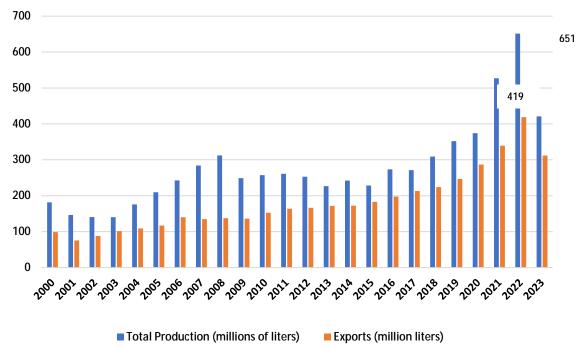
Graph 1 shows the increase in tequila production in millions of liters in 24 years. In the last 5 years, the production of liters of tequila and exports grew exponentially, in the year 2022, 651 produced million liters of tequila, of which 419 million were exported.

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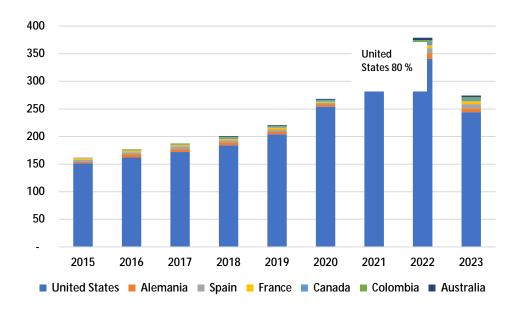
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Graph 1 Tequila production and exports in Mexico (millions of liters) Years 2000-2023

Source: Own elaboration with data from the Tequila Regulatory Council (CRT, 2023).

Graph 2 shows the main tequila-consuming countries. The United States consumed 80% of exports in 2022 with 341 million liters of tequila. It is worth mentioning that of every 10 liters of tequila produced in Mexico, seven are sold abroad.



Graph 2 Main tequila-consuming countries (millions of liters) Years 2000-2023

Source: Own elaboration with information from the Tequila Regulatory Council (CRT, 2023)

2 Methodology

The methodology involves field trips in the mountains, valleys, and south of the municipality of Pénjamo. Subsequently, we georeferenced the agave plots by taking 115 control points with GPS to know the occupied surface of the agave. We conducted 12 semi-structured interviews and participant observation with grain, livestock, and agave producers. The following interviewees were selected under the criteria:

- a) producers who have access to land via lease,
- b) grain and/or livestock and agave producers
- c) temporality in their pre-existing practices (generationally),
- d) producers who have been affected in their pre-existing activities due to the agave plantation.

We carry out statistical and documentary analyses on the production, exports, and global consumption of tequila.

3 Results at the Local Scale

3.1 Land leasing and sharecropping in the municipality of Penjamo

The municipality of Penjamo is located in the southwest of the state of Guanajuato, it has a territorial area of 1565.516 square kilometers, it has a population of 154,960 inhabitants, there are 819 rural localities where 76 percent of the population is concentrated, ranging from 1 to 2,000 residents (INEGI, 2020). Figure 1 shows the location of the municipality and the rural population ranges.

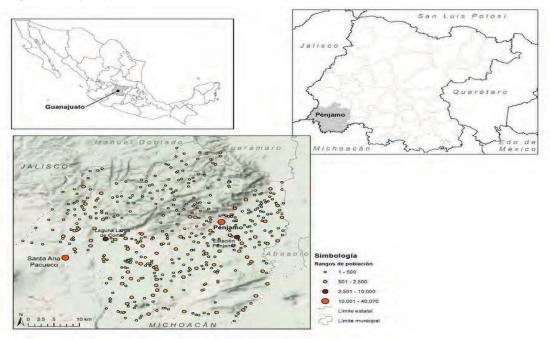


Figure 1 Population ranges by the number of inhabitants in the Penjamo ranches

Source: Own elaboration with data from INEGI, 2020

In this municipality, land leasing and sharecropping have been carried out since colonial times and until today, as a mechanism for accessing land to produce grains and livestock to feed the local population. This type of leasing has been carried out by ranchers and peasants "out of habit" on a generational basis through the transmission of knowledge and family work (Morales and Keilbach, 2021).

In 2018, with the increase in international demand for tequila, these sharecroppers were affected by the expansion of *Agave tequilana*, because the owners of the properties decided to lease their lands to land grabbers, who offer an increase in land rent by up to 900% to plant agave. Graph 3 shows the approximate increase in the last 5 years in the number of hectares with *Agave tequilana* plantations in Pénjamo, from 2022 to 2023 there was an increase of 247%.

14000 13000 ha
12000
10000
8000
4000
2000
0
2018 2019 2020 2021 2022 2023

Graph 3 Number of hectares with tequila agave plantations in Penjamo, Guanajuato (thousands of hectares) 2018-2023

Source: Own elaboration with information from the Agri-Food and Fisheries Information Service (SIAP, 2023)

3.2 Small grain and livestock producers affected by agave monoculture

The production of the monoculture of Agave tequilana is oriented towards the accumulation of capital through global markets, they care little about the future of local territories and the environmental and social consequences. They alter cultural landscapes, their uses, and covers, under a neoliberal logic of negative reciprocity, in which they seek to "receive the most by giving the least" (Lomnitz, 2005).

The land grabbers manage to convince the owners of the properties, without specifying in the lease contracts the changes that their plots will have, the agrochemicals that will be applied to their lands, and how the agave will be planted. In most cases, planting is carried out in the direction of the topography, without contour lines, causing soil erosion.

Small producers are displaced from the local territories that they have rented for decades, from generation to generation. They are forced to look for smaller properties far from their homes. If they do not find spaces to continue the production of grains and livestock, they decide to reduce their production of grains and livestock:

"Not everyone produces grains and takes care of cows, it takes work, time, and not spending too much, waiting for the money to arrive in each cycle, not getting into debt, and with agave, many have bad lands and they are bad for working, they the agave fell and they made money, people who were screwed got better." (Interview Jesús Rojas, grain and livestock producer, Pénjamo, October 9, 2021).

Mr. Francisco Hernández, owner and grain producer, has a ranch and a deep water well. Approximately two years ago he rented 80 hectares of irrigated land from the José Cuervo company for the agave plantation and observed that his lands were beginning to erode. Expresses disagreement with the contract he signed:

"A company arrived, José Cuervo tequila, and we made the decision to make a deal with the tequila company and that forced us, more than anything because of the labor and apart from the fact that the grain was very cheap, and the inputs were very expensive. What, if I see it wrong, is that it is a crop that they bring their program to four years to five years. The detail is that the agave sheds its leaves, it does not cover its surface and when it rains, the earth erodes, it washes away, that is the detail that I see as the most serious, now the other one is the environment that I see, it is the ecology, the fauna, that many companies that arrived destroy everything, huizaches, mesquites, these nopales, even there on the ranch there were about 200 to 300 hectares around the ranch that were like ecosystems, these companies arrived and destroyed them (Interview with FH held in Penjamo, November 6, 2021)".

3.3 Area occupied by agave plantations in the municipality of Penjamo

We carried out field trips in the municipality of Penjamo and found that there is a greater number of agave plantations in the valleys and fewer plantations in the mountains. Subsequently, we georeferenced the agave plots by taking control points in different areas of the municipality, information that helped us make the following map (figure 2), where we show that in 2022 the agave surface was 7093 hectares, the largest plantation It is concentrated in the ownership of ejidal land with 4,480 hectares and the rest is in small property ownership.

This means that the ejidatarios of these agrarian centers have decided to stop producing grains and livestock and now rent their lands for monoculture or they produce agave. Although, in the agrarian nuclei, decisions are made by consensus where there is resistance from those who do not agree with the agave plantation, the leaders of the ejidos are increasingly convinced and convince the members of the ejido to change the production.

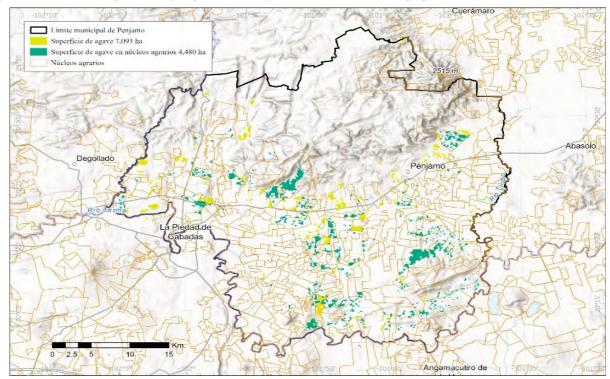


Figure 2 The surface occupied with agave plantations in agricultural centers and small properties, Penjamo, Guanajuato 2022

Source: Authors: Ana Gabriela Morales Ventura, Lucie Crespo Stupková, and Jesús Medina Rodríguez (research assistant at the Center for Human Geography Studies of El Colegio de Michoacán). Information obtained on field trips.

4 Conclusions

The increase in the planting of Agave tequilana Weber blue variety increased the cost of land rent in the municipality of Pénjamo, Guanajuato, Mexico by up to 900%, this affects grain and livestock producers who for centuries have been sharecroppers, tenants in the municipality. This causes producers to reduce the production of grains and livestock that contribute to local nutrition. Grabbing agricultural and forest lands with agave plantations increased by 247%. The institutions that are in charge of regulating the change in land use and coverage have been flexible mechanisms that determined the territories for monoculture planting. The formation of the Denomination of Origin of Tequila was formed with a view to the international market. It is concluded that agroextractivism and land grabbing for agave plantations accentuate economic, territorial, political, and environmental inequality at a local scale and affect pre-existing activities, such as grain production and livestock farming.

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