

THE AVOCADOS OF WRATH



GRAIN and Colectivo por la Autonomía*

(*) Mexico-based Colectivo por la Autonomía works on issues related to territorial defence and peasant affairs, through coordination with other Mexican and Latin American social movement organizations, as well as legal defence and research on the environmental and social impacts experienced by indigenous and rural territories and communities.

“This little orchard will be part of a great holding next year, for the debt will have choked the owner. This vineyard will belong to the bank. Only the great owners can survive, for they own the canneries too... Men who have created new fruits in the world cannot create a system whereby their fruits may be eaten... In the souls of the people the grapes of wrath are filling and growing heavy, growing heavy for the vintage.”

So wrote John Steinbeck when, perhaps for the first time, the immense devastation provoked by capitalist agribusiness, the subsequent expulsion of peasant families from the Midwest, and their arrival in California in the 1930s became visible.¹ Perhaps, if he were writing today, he would replace grapes with avocados. The business model for this popular tropical fruit is the epitome of agribusiness recrudescence, causing rampant deforestation and water diversion, the eradication of other modes of agriculture, and the expulsion of entire communities from the land.

Avocados are, after bananas and pineapples, the world’s third-largest fruit commodity. Their production is taking up an ever-growing area and continually expanding into new countries. What are the implications of this worldwide expansion? What forces are driving it? How does this model, working on both global and local scales, manage to keep prices high? How did the current boom, with avocados featured at major sporting events and celebrations of all kinds, come to pass? What are the social repercussions of this opaque business?

We begin the story on 12 February 2023 in Kansas City at the 57th Super Bowl, American football’s premier annual event. A month earlier, more than 2000 km away in Michoacán, Mexico, tens of thousands of tons of avocados were being packed for shipping. The United States imports 40% of global avocado production and the Super Bowl is when consumption peaks. “The guacamole eaten during the Super Bowl alone would fill 30 million football helmets,” says Armando López, executive director of the Mexican Association of Avocado Growers, Packers, and Exporters (APEAM), which paid nearly \$7 million for a Super Bowl ad.²

Despite its limited coverage in US media, the dark side of avocado production was the unwelcome guest at this year’s event. A complaint against the Government of Mexico had recently been filed with the Commission for Environmental Cooperation under the USMCA,

accusing the government of tolerating the ecocidal impacts of avocado production in Michoacán.³

Mexico can be seen as a proving ground for today’s avocado industry. Focusing on this country helps tell the story of how the avocado tree went from being a relic of evolutionary history to its current status as an upstart commodity characterized by violence and media-driven consumerism.

Booming world production

For a decade now, avocados have been the growth leaders among tropical fruit commodities.⁴ Mexico, the world’s largest exporter, accounts for 40% of total production. According to OECD and FAO projections, this proportion could reach 63% in 2030. The United States absorbs 80% of Mexican avocado exports, but production is ramping up in many other countries.

In 2021, global production reached 8.8 million tons, one third of which was exported, for a value of \$7.4 billion. By 2030, production is expected to reach 12 million tons. Within a decade, the average area under cultivation doubled in the world’s ten largest producer countries (see Figure 1). It quadrupled in Colombia, Haiti, Morocco, and the Dominican Republic, and quintupled in Zimbabwe. Production has taken off at a gallop in Malawi and Vietnam as well, with both countries now ranking among the top 20 avocado producers.

The top 10 countries account for 80% of total production. In some of these, such as Mexico, Peru, Chile, and Kenya (see Table 1), the crop is largely grown for export. Its main markets are the United States and Europe, which together make up 70% of global imports. While Mexico supplies its neighbour to the north all year long, the avocados going to Europe come from Peru, South Africa, and Kenya in the summer and from Chile, Mexico, Israel, and Spain in the winter.⁵ The Netherlands, as the main port of entry for the European Union, has become the world’s third-leading exporter.

Figure 1: Growth of avocado production in the top 10 producer countries*



*Countries considered: Mexico, Colombia, Peru, Indonesia, Dominican Republic, Kenya, Brazil, Haiti, Vietnam, Chile.
Source: FAOSTAT [viewed 19 February 2023]. Produced by: Colectivo por la Autonomía/Eduardo Villalpando Ruiz

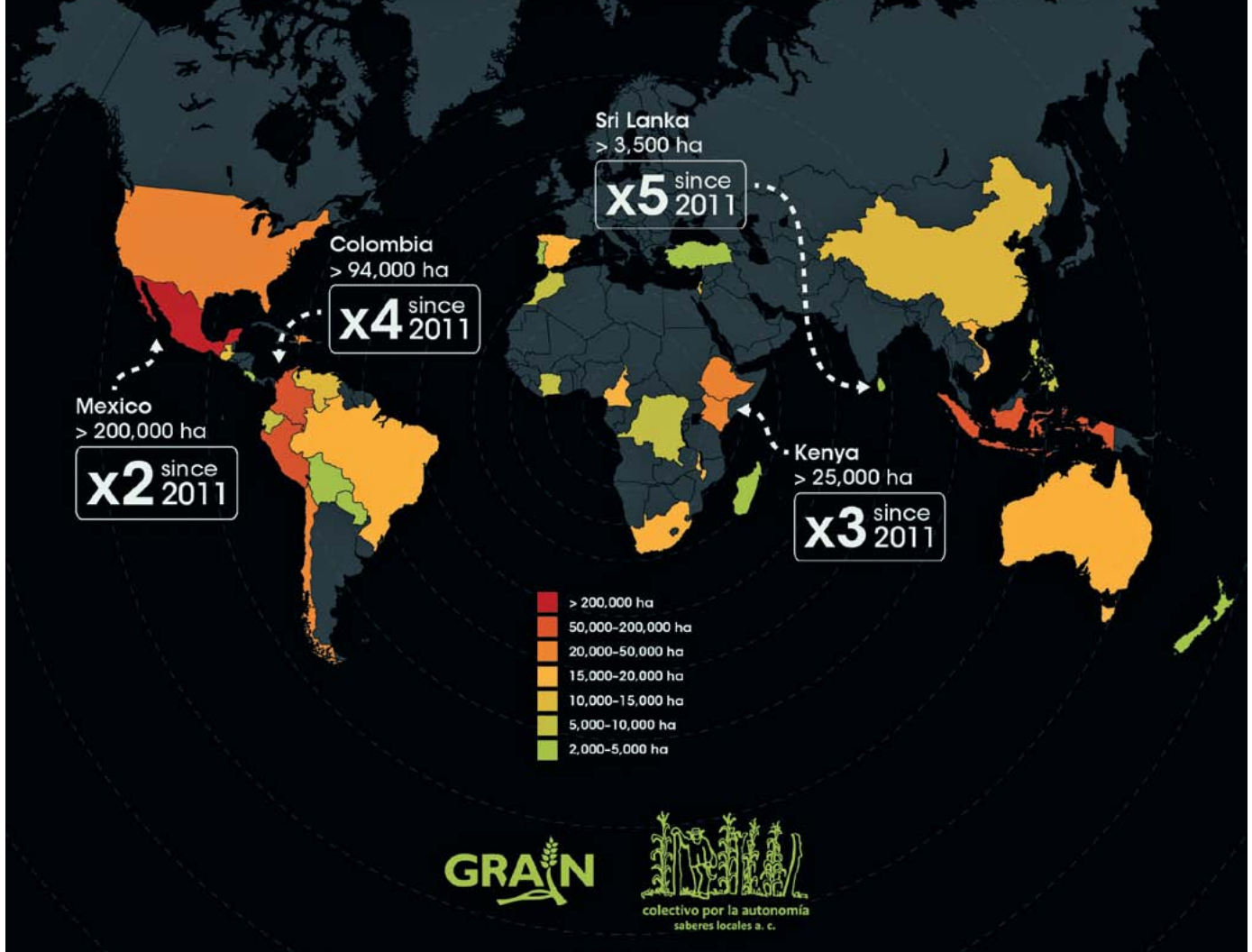
Table 1. Top 10 avocado producers in 2021

Country	Production (thousand tons)	Proportion of world production	Area (ha)	Proportion of global planted area	Proportion of production exported	Main markets
Mexico	2,443	28%	226,534	26%	50%	USA (80%), Canada (8%), Japan (4%)
Colombia	980	11%	94,111	11%	10%	Netherlands (52%), Spain (12%), UK (12%)
Peru	777	9%	51,800	6%	70%	Netherlands (33%), USA (17%), Spain (16%)
Indonesia	669	8%	50,510	6%	0.07%	Malaysia (84%), Spain (7%), Singapore (5%)
Dominican Republic	634	7%	37,468	4%	9%	USA (64%), Netherlands (14%), UK (5%)
Kenya	417	5%	25,919	3%	23%	Netherlands (25%), UAE (14%), France (14%)
Brazil	301	3%	18,106	2%	3%	Argentina (30%), Spain (26%), Netherlands (17%)
Haiti	248	3%	42,723	*	*	
Vietnam	213	2%	16,538	2%	0.02%	Singapore (63%), Malaysia (24%), Australia (8%)
Chile	169	2%	32,364	4%	58%	Netherlands (45%), Argentina (14%), UK (12%)

* Haitian avocados are not exported officially as being from Haiti, but rather mixed with Dominican avocados and exported mainly to the United States.⁶ Produced by authors based on FAOSTAT and UN Comtrade [viewed 3 March 2023]

Area under avocado cultivation worldwide

The cultivated area surpassed 870,000 hectares in 2021 and has doubled since 2011.



200.000 ha (Mexico)

50.000 - 200.000 (Colombia, Indonesia, Peru)

20.000 - 50.000 (Chile, Dominican Republic, Ethiopia, Haiti, Kenya, United States)

15.000 - 20.000 (Australia, Brazil, Cameroon, Malawi, South Africa, Spain, Vietnam, United States)

10.000 -15.000 (China, Guatemala, Israel, Venezuela)

5.000 - 10.000 (Côte d'Ivoire, Democratic Republic of the Congo, Ecuador, Morocco, Philippines)

2.000 - 5.000 (Bolivia, Costa Rica, Madagascar, New Zealand, Paraguay, Portugal, Sri Lanka, Turkey).

Other markets are rapidly opening up in Asia. Kenya, Ethiopia, and recently Tanzania have begun exporting to India and China,⁷ while Chinese imports from Peru, Mexico, and Chile are also on the rise. In 2021, despite the pandemic, these imports surpassed 41,000 tons.⁸ In addition, US avocado companies have begun cutting costs by sourcing from China, Yunnan province in particular.⁹

The multimillion dollar “green gold” industry

According to some estimates, the global avocado market was worth \$14 billion in 2021 and could reach \$30 billion by 2030.¹⁰ The biggest profits go to a handful of vertically integrated groups that are continuing to fan out to new countries, where they are setting up subsidiaries. They have also tightened their control over importers in the main global hubs.

For two examples, consider the California-based Mission Produce and Calavo Growers. In 2021, Mission Produce reported sales equivalent to 3% of global production,¹¹ and its sales have risen steadily over the last decade, reaching \$1.045 billion in 2022.¹² The United States buys 80% of the company’s volume, with Europe, Japan, and China being other large customers, and it imports from Peru, Mexico, Chile, Colombia, Guatemala, the Dominican Republic, South Africa, Kenya, Morocco, and Israel. It controls 8600 hectares in Peru, Guatemala, and Colombia.¹³

Calavo Growers, for its part, had total sales of \$1.191 billion in 2022.¹⁴ More than half its revenues came from packing and distribution of Mexican, US, Peruvian, and Colombian avocados.¹⁵ The United States is far and away its biggest market, but in 2021 it began stepping up Mexican exports to Europe and Asia.¹⁶

South Africa-based Westfalia Fruits is another relevant company in the sector. It has 1200 hectares in South Africa and is expanding to other African and

Latin American countries. It controls 1400 hectares in Mozambique and has taken over large exporters such as Aztecavo (Mexico), Camet (Peru), and Agricom (Chile).¹⁷ Its main markets are Europe, the United States, South America, and Asia.¹⁸ Some of its subsidiaries are incorporated in the tax haven of Delaware, and it has acquired importers in the UK and Germany.¹⁹

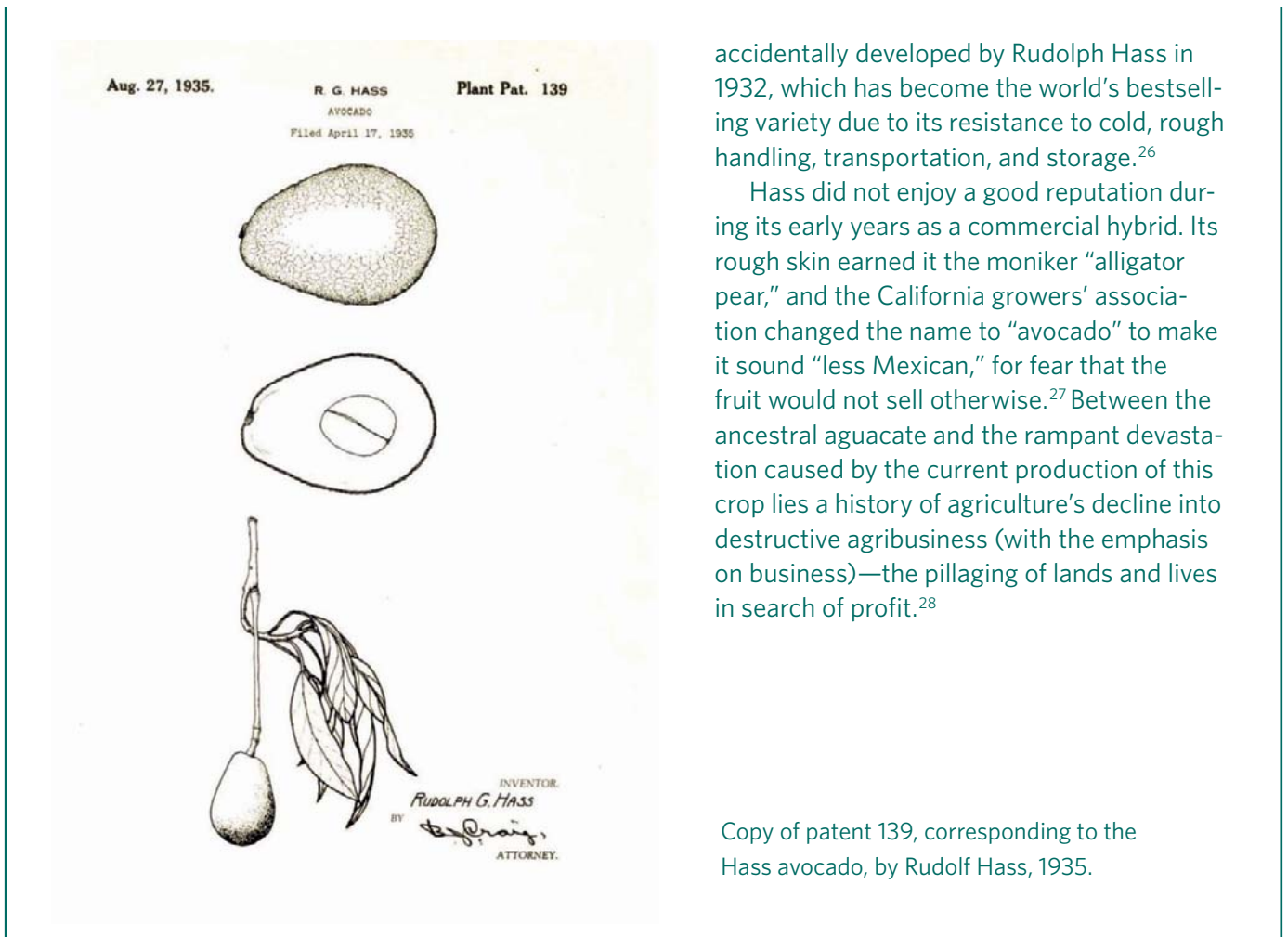
These companies have based their expansion on investment from heavyweight players in the world of finance. Mission Produce and Calavo Growers are listed on the New York Stock Exchange and are attracting investment from such concerns as BlackRock and The Vanguard Group.²⁰ We are also seeing private equity, endowment, and pension funds moving into avocados; Mission Produce, for example, joined with private equity firm Criterion Africa Partners to launch production of over 1000 hectares of avocados in Selokwe (South Africa).²¹

In 2020, Westfalia sold shares in Harvard Management Company, the company that manages Harvard University’s endowment fund.²² Also involved is the Ontario Teachers’ Pension Plan, which in 2017 acquired Australia’s second-largest avocado grower, Jasper Farms. PSP Investments, which manages Canada’s public service sector pensions, made a controversial acquisition of 16,500 hectares in Hawaii for production of avocado, among other crops, and faces grave accusations deriving from its efforts to monopolize the region’s water supply.²³

Finally, it has to be emphasized that the expansion enjoyed by these companies has been aided by public funding. For example, South Africa’s publicly owned Industrial Development Corporation (IDC) and the World Bank’s International Finance Corporation (IFC) have supported Westfalia’s incursions into Africa and Latin America under the guise of international development.²⁴

From evolutionary relic to upstart commodity

The tree, native to Mexico, was called “ahuacatl,” or testicle tree—due to the shape of the fruit—in nahua, one of the country’s indigenous languages. This name endowed the avocado tree with an aura of magic. Avocados were planted on sacred ground (ancestral burial sites) and were, in former times, believed to be people who had come back to life as trees. The innumerable varieties of this species, *Persea americana*, have travelled through time with the communities of Mesoamerica since teocintle (the ancestor of maize), and later maize, began to develop in symbiosis with local communities around 9000–10,000 years ago; vestiges of semi-domesticated varieties dating from this era have been found in Coxcatlán Cave, in the Tehuacán Valley.²⁵ The word “avocado” probably derives from an incorrect pronunciation of the word “aguacate,” and continues to supplant its etymological forebear. The progress of the word is analogous to that of the hybrid



accidentally developed by Rudolph Hass in 1932, which has become the world's bestselling variety due to its resistance to cold, rough handling, transportation, and storage.²⁶

Hass did not enjoy a good reputation during its early years as a commercial hybrid. Its rough skin earned it the moniker "alligator pear," and the California growers' association changed the name to "avocado" to make it sound "less Mexican," for fear that the fruit would not sell otherwise.²⁷ Between the ancestral aguacate and the rampant devastation caused by the current production of this crop lies a history of agriculture's decline into destructive agribusiness (with the emphasis on business)—the pillaging of lands and lives in search of profit.²⁸

Copy of patent 139, corresponding to the Hass avocado, by Rudolf Hass, 1935.

A proving ground for profit and devastation

To take the full measure of the risks looming over the new areas being brought under the industrial avocado model, it is important to read Mexico as a proving ground of sorts. The country has become the world's largest producer through a process bound up with the dynamics of agribusiness in California, where avocado production took its first steps in the early twentieth century. The US market grew rapidly, protected from Mexican imports by a 1914 ban predicated on an alleged threat of pests coming into the country.

This was the genesis of Calavo Growers (1924) and Henry Avocado (1925). California began exporting to Europe and expanding the area under cultivation, reaching a peak of 30,000 hectares in the mid-1980s, when Chile began competing for the same markets.²⁹ It was then that consortia of California avocado producers founded West Pak and Mission Produce, and the latter of these soon began operations as an importer of Chilean avocados. In 1997, 60% of US avocado purchases came from Chile, but the business collapsed with the signing of the North American Free Trade Agreement (NAFTA).³⁰

Lobbying by APEAM and the US companies then led to the lifting of the ban on Mexican imports. With liberalization under NAFTA, Mexican avocado exports multiplied by a factor of 13, and their commercial value by a factor of 40, in the first two decades of the twenty-first century.

The California corporations set up subsidiaries in Mexico and began buying directly from growers, going as far as to build their own packing plants in Michoacán.³¹ One study found that by 2005, Mission Produce, Calavo Growers, West Pak, Del Monte, Fresh Directions, and Chiquita had cornered 80% of US avocado imports from Mexico.³²

Today, the state of Michoacán monopolizes 75% of the nation's production, followed by Jalisco with 10% and Mexico state with 5%.³³ In 2019, export-oriented agriculture was a high-profile player in the industry, with public policies being structured around its needs. And if the business had become so profitable, it was because of the strategies of domination that had been deployed by avocado agribusiness and the impacts of these strategies on peasant and community ways of life.³⁴ The Mexican avocado boom is now reliant on the felling of



Industrial avocado plantation near Uruapan, Michoacán. Photo credits: Prometeo Lucero

whole forests. In many cases these are burned down or clear-cut to make way for avocado groves, using up the water supply of localities or even whole regions. The societal costs are enormous.

In 2021, Mexico produced some 2.5 million tons of avocados; within the preceding decade, nearly 100,000 hectares had been directly or indirectly deforested for the purpose.³⁵ In Michoacán alone, between 2000 and 2020, the area under avocados more than doubled, from 78,530.25 to 169,939.45 ha.³⁶ And reforestation cannot easily repair the damage caused by forest destruction: the ecological relationships on which biodiversity depends take a long time to evolve, and the recovery period is even longer after removal of vegetation, spraying of agrotoxins, and drying of the soil.

In Jalisco, the last decade has seen a tripling of the area under avocado, agave, and berries, competing not only with peasants and the forests stewarded by original peoples, but also with cattle ranchers.³⁷ “Last year alone,” says Adalberto Velasco Antillón, president of the Jalisco ranchers’ association, “10,000 cattlemen (dairy and beef) went out of business.”³⁸

According to Dr. Ruth Ornelas, who studies the avocado phenomenon in Mexico, the business’s expansion has come in spite of its relative cost-inefficiency. “This

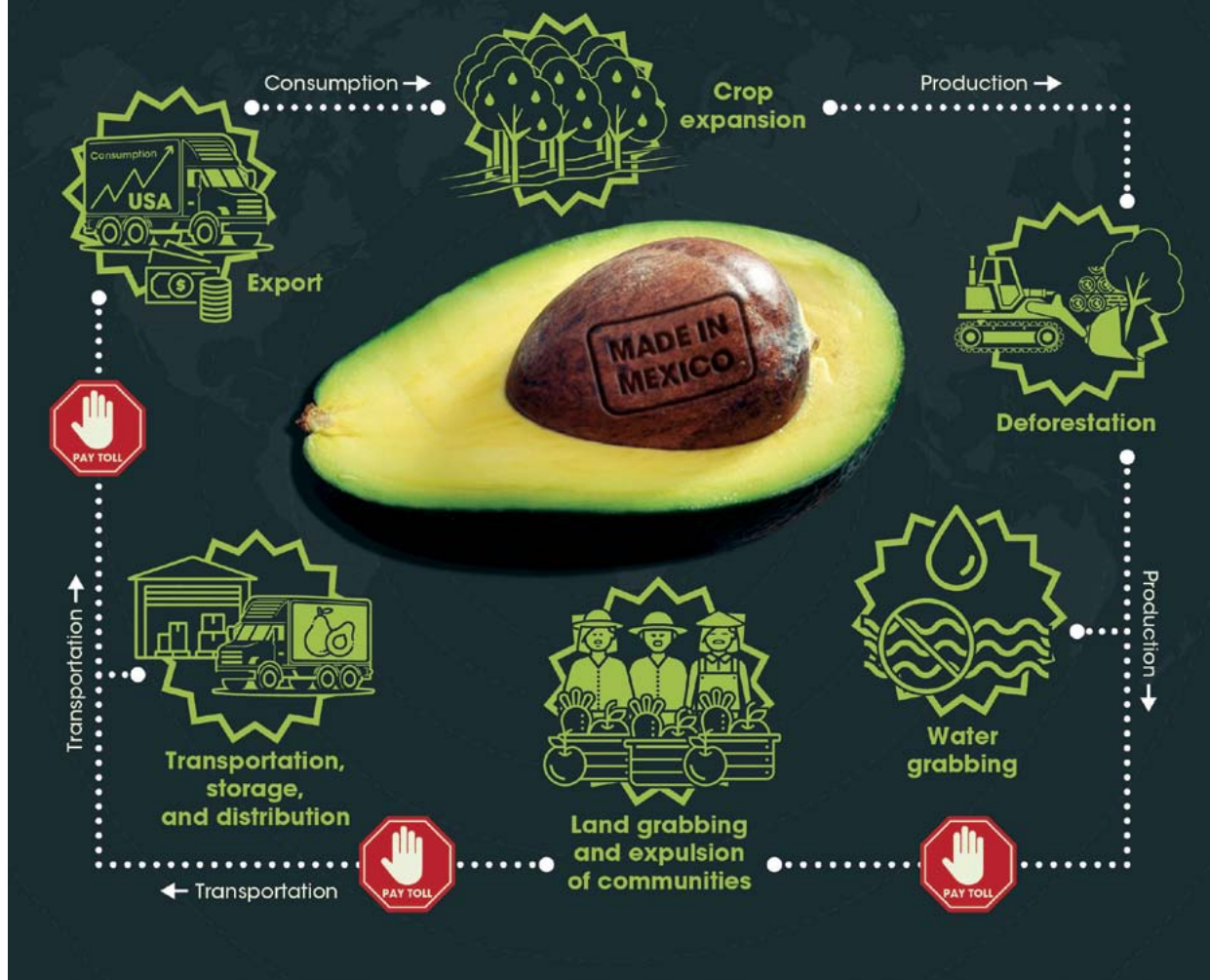
is apparent in the price of the product. Extortion garners 1.4% of total revenues,... or 4 to 6 pesos per kilogram of avocados.” It is a tax of sorts, but one that is collected by the groups that control the business, not by the government.³⁹ According to Francisco Mayorga, minister of agriculture under Vicente Fox and Enrique Calderón, “they collect not only from the farmer but from the packer, the loggers, the logging trucks and the road builders. And they decide, depending on the payments, who gets to ship to Manzanillo, Lázaro Cárdenas, Michoacán and Jalisco. That’s because they have a monopoly on what is shipped to the world’s largest buyer, the United States.”⁴⁰

By collecting this toll at every link in the chain, they control the whole process, from grower to warehouse to packer to shipper, including refrigeration and the various modes of distribution. And not only do they collect at every step, but they also keep prices high by synchronizing supply from warehouse to consumer.

Dr. Ornelas says, “They may try to persuade people, but where that doesn’t work, bribes and bullets do the trick. Organized crime functions like a police force in that it plays a certain role in protecting the players within the industry. It is the regulatory authority. It is the tax collector, the customs authority, and the

The avocados of wrath

Mexico is the world's number one producer and exporter of avocados. But its supply and value chains are laden with devastation and extortion.



just-in-time supplier. Sadly, the cartels have become a source of employment, hiring *halcones* [taxi drivers or shoeshine boys working as spies], chemists, and contract killers as required. It seems that they even have economists advising them on how to make the rules." Mayorga adds: "When these groups are intermingled with governmental structures, there is a symbiosis among growers, criminals, vendors, and input suppliers. If somebody tries to opt out of the system, he may lose his phytosanitary certification and hence his ability to export." Mayorga stresses that the criminals administer the market and impose a degree of order on it; they oversee the process at the domestic and international levels, "regulating the flow of product so that there is never a glut and prices stay high." Investment and extortion are also conducive to money laundering. It is very hard to monitor who is investing in the product, how it is produced, and where it is

going. Yet the government trumpets avocados as an agri-food success.

Official data indicate that there are 27,712 farms under 10 hectares in Michoacán, involving 310,000 people and also employing 78,000 temporary workers.⁴¹ These small farms have become enmeshed in avocado capitalism and the pressures it places on forests and water; more importantly, however, the climate of violence keeps the growers in line. In the absence of public policy and governmental controls, and with organized crime having a tight grip on supply chains and world prices, violence certainly plays a role in governance of the industry. But these groups are not the ones who run the show, for they themselves are vertically integrated into multidimensional relationships of violence. It is the investors and large suppliers, leveraged by the endowment, pension, and private equity funds, who keep avocado production expanding around the world.⁴²

The role of greenhouses

Land grabbing by the avocado industry has laid the groundwork for invasion by greenhouse production. Greenhouses allow for total control over both labour, which has been profoundly casualized, and the land base.

The common threads running through greenhouses are water and plastic. Israeli companies such as Netafim and Rivulis, which supply drip irrigation systems to the avocado industry, have found new customers among growers of berries and other products under greenhouses.⁴³ It may not be a coincidence that Netafim was acquired by the powerful Mexican group Orbia, a regional leader in plastics. These technologies are presented as sustainable by virtue of the reduced water consumption that they make possible.⁴⁴ But this is questionable if one considers the quantity of plastic required as well as the ecological and social footprint of the digitalization associated with this model.⁴⁵

A headlong rush down multiple paths

The Mexican example alerts us to one of the main problems associated with avocado growing, and that is water use. In Mexico, each hectare consumes 100,000 litres per month, on top of the destruction of the biodiverse forests that help preserve the water cycle.⁴⁶ A whole other study ought to be devoted to the indiscriminate use of agrotoxins and the resulting groundwater contamination. In Michoacán alone, the avocado crop receives 450,000 litres of insecticides, 900,000 tons of fungicides, and 30,000 tons of fertilizers annually.⁴⁷

Wherever they are grown, avocados consume an astonishing volume of water. An estimated 25 million m³, or the equivalent of 10,000 Olympic swimming pools, are estimated to be used by Peru, South Africa, Chile, Israel, and Spain to produce the avocados imported into the UK.⁴⁸

California has maintained its 90% share of the US avocado market, but this situation is not predicted to endure beyond 2050.⁴⁹ California's dire water crisis has been driven to a significant extent by the industrial production of avocados and other fruits, with climate change exacerbating the problem.⁵⁰

In the Chilean province of Petorca, which accounts for 60% of Chile's avocado exports, the production of one kilogram of avocados requires 1280 litres of water. Water privatization by the Pinochet dictatorship in 1981 coincided with the rise of the country's export industry and abetted the development of large plantations, which have drained the rivers and driven out peasant farming.⁵¹ This appears to be one of the reasons why Chile is no longer self-sufficient in this commodity. "We import more than we export now," said the director of Mission Produce, Steve Barnard, two years ago, stating that avocados were being brought in not only from Peru but also from California.⁵²

Even as it continues to squeeze the last drops of water out of depleted aquifers in Mexico, California, and Chile, the industry is migrating into other sacrifice zones.⁵³ To water the arid Olmos Valley in Peru, where California's avocado companies operate, the Peruvian government developed one of the country's most corrupt and conflict-ridden megaprojects: a 20-km tunnel through the Andes range, built in 2014, to deliver water diverted from the Huancabamba River to Olmos. The project was sold as an "opportunity to acquire farmland with water rights in Peru."⁵⁴

Colombia was the next stop on the avocado train, with the crop spreading out across Antioquia and the coffee-growing region, and with even large mining interests joining forces with agribusiness.⁵⁵ "Peru is destined to replace much of its avocado land with citrus fruit, which is less water-intensive," said Pedro Aguilar, manager of Westfalia Fruit Colombia, in 2020, although "water is becoming an absolutely marvelous investment draw, since it is cost-free in Colombia."⁵⁶

Sowing the seeds of resistance

If Mexico has been an experiment in devastation, it has also been an experiment in resistance, as witness the inspiring saga of the Purépecha community of Cherán, Michoacán. In 2012, the community played host to a preliminary hearing of the Permanent Peoples' Tribunal that condemned land grabbing, deforestation, land conversion, agrotoxin spraying, water depletion, fires, and the widespread violence wielded against the population. It laid the blame for these plagues squarely on timber theft, the avocado industry, berry greenhouses, and agave production.

One year earlier, the population had decided to take matters in hand. They were fed up with this litany of injustices and with the violence being inflicted on them

by the paramilitary forces of organized crime. Led by the women, the community took up the arduous task of establishing checkpoints marked out by bonfires (which were also used for cooking) throughout the area. Any institution or group that questioned their collective authority was immediately confronted. The newly created community police force is answerable to the general assembly, which in turn reports to the neighbourhood assemblies. A few years ago, the community gated itself to outsiders while working on restoring the forest and establishing its own horizontal form of government with respect for women, men, children, and elders.

The community then took another step forward, opting for municipal and community autonomy. This was not a straightforward process, but it did finally lead to approval by the National Electoral Institute for elections to take place under customary law and outside the party system. This example spread to other communities such as Angahuan that are also grappling with agribusiness, corruption, and organized crime.⁵⁷

Clearly, this struggle for tradition-rooted self-determination is just beginning. The cartels, after all, are pursuing their efforts to subdue whole regions. Meanwhile, for their own defence, the people are continuing to follow these role models and declaring self-government.

An unsustainable model

“The works of the roots of the vines, of the trees, must be destroyed to keep up the price, and this is the saddest, bitterest thing of all. Carloads of oranges dumped on the ground. The people came for miles to take the fruit, but ... men with hoses squirt kerosene on the oranges, and they are angry at the crime, angry at the people who have come to take the fruit. A million people hungry, needing the fruit—and kerosene sprayed over the golden mountains.”⁵⁸

Per capita consumption of avocados has kept on growing in the importing countries, driven by intense marketing campaigns promoting the nutritional benefits of this food. In the United States alone, consumption has tripled in 20 years.⁵⁹ While avocados are sold as a superfood, a convenient veil remains thrown over what is actually happening at the local level, where the farmers are not the ones benefiting. While this global trend continues, various false solutions are proposed, such as water-saving innovations or so-called “zero deforestation” initiatives.

In this exploitative model, small- and medium-sized growers are forced to take on all the risk while also bearing the burden of the environmental externalities. The



Plastic tubs to store water that industrial avocado cultivation needs in enormous quantities.

Photo credits: Prometeo Lucero

big companies and their investors are largely shielded from the public health and environmental impacts.

As we have said, the growers are not the ones who control the process; not even organized crime has that power. They are both just cogs in the industrial agri-food system, assisting the destruction it wreaks in order to eke out a share of the colossal dividends it offers. To

truly understand the workings of the system, one has to study the supply chain as a whole.

Given these realities, it is urgent for us to step up our efforts to denounce agribusiness and its corrupting, devastating model. The people must organize to find ways out of this nightmare.



One of the many “fogones” or “bonfires” that served as a guard post and community revival in the struggle of San Francisco Cherán, in Michoacán, Mexico, against loggers and drug traffickers linked to avocado production. Photo credits: Consuelo Pagaza



Forest fires in Michoacán, Mexico, as a key way to grab land for avocado plantations. Photo credits: Lauro Rodríguez / El Suspica

Notes

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Cover photo: *Mural* in Cherán that tells the story of their struggle. This *mural* is inside the Casa Comunal and is part of a mural revival throughout the city, where there are collective and individual works in many streets and public buildings. This *mural* is the work of Marco Hugo Guardián Lemus and Giovanni Fabián Gutiérrez.