

## Land tenure and other human rights issues in the oil palm and sugarcane sectors in Mexico

Client: PepsiCo

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### Executive Summary

This report presents the findings of a desk-based, high-level analysis of the potential for land rights' risks and other human rights' risks in Mexican sugarcane and palm oil supply chains. It is designed to help inform PepsiCo – and other sugarcane and palm oil customers, in taking steps to identify issues in their specific supply chains and in acting to address them.

It is not a comprehensive human rights assessment of the sector, nor of any specific suppliers.

The report focuses on the risk of production-level issues related to land rights, labour rights, community impacts and transparency.

### Main findings of the report

Mexico's agricultural sector operates within a land tenure system with an unusually high percentage of and under the ownership of small farmers and communities. While sugarcane has a long history of cultivation in Mexico, oil palm is considered a much newer crop. Both industries have very high numbers of smallholder producers in their supply chain.

**Labour practices:** There are serious and widespread concerns about the human rights of workers involved at the field level in the production of both commodities. This applies both to labour used by smallholder outgrowers and by agribusiness' own plantations. The highest risks relate to:

- Risks of non-compliance with workers' rights regarding pay and conditions: especially in the case of vulnerable immigrant labour.
- Risks to health and life that would be presented by extreme working conditions (e.g. from extreme physical work in high temperatures with poor hydration), inadequate supply or use of protective equipment, poor and dangerous use of equipment and inadequate storage, and handling and application of agrochemicals.
- Risks to health that may be presented by potentially inadequate housing conditions of workers, including problems of overcrowding, sanitation and personal safety.
- Risks to children: including child labour undertaking hazardous activities, as families of migrant labour, and/or exposure to hazardous practices.
- Risk of discrimination and non-compliance with rights of indigenous peoples and other marginalized groups (illiterate, poorer sectors) engaged as employees, especially – although not exclusively – migrant labourers.

**Land rights:** The study suggests that large-scale land-acquisition ('land-grabbing') by agribusiness is not considered as problematic as it is in other parts of the world. However, the increase in demand for palm oil combined with the current incentives and legal situation, lead some commentators to report increased incidences of:

- Shift in ownership of land toward agribusiness (away from communal and individual landholdings), and even more control of productive landscape by agribusiness (via rental of land and/or provision of seed, control of planting, etc.)
- Dependence on commercial crops at the expense of subsistence or locally-consumed produce, raising questions about long-term local food security and potential economic vulnerability.

- Gradual shift in production landscape without consideration of the large-scale impacts of this change, and without due consultation around impacts (in part because there are multiple small-scale land-use changes being made, rather than a single purchase)
- There is one serious – but unsubstantiated – accusation of populations having been evicted from their land for palm oil mill or plantation establishment.

**Impacts on wider community:** There is a risk of practices which have negative environmental impacts on neighbouring and downstream communities in relation to palm and sugarcane cultivation; Mexico is considered to have high levels of corruption and impunity, hence enforcement of legal protections relating to conservation, ecosystem protection and pollution prevention may be weak. This could potentially affect the protection of human rights of communities (e.g. access to water). This would need to be considered at site level.

The most likely impacts are in relation to:

- Risks to water quality and supply caused by poor storage, supply and disposal of agrochemicals, poor management of processing waste and/or overuse of water for irrigation and/or processing.
- Health risks from cane burning and mill emissions related to sugarcane processing.
- Forest fires caused by sugarcane harvest where burning is used.
- Risks to water quality and supply, effluent pollution and land-use change.
- Loss of local biodiversity due to illegal and/or poorly regulated land-use change, especially conversion of forest.

**Understanding, management and mitigation of human rights risks:** The study highlights a low level of experience by processing companies in Mexico of assessing the social (and environmental) risks in their supply base, compared to the mill and plantations under direct ownership and management. While there has been interest and progress toward meeting international sustainability standards, processing mills have typically seen the activities of their raw material suppliers – often made up of thousands of smallholders – as difficult to influence or beyond their scope of responsibility. Therefore, mills are likely to lack the human resources, experience, and systems to identify, manage and support mitigation of problems – even serious ones – in their supply base. This therefore represents an additional risk and challenge for brands, traders and retailers seeking to address these issues in their supply chains, in that even if human rights (and environmental) threats are identified, their suppliers are unlikely to be able to react with agility and experience to address them.

### Recommendations

It is important to note that several of the problems identified are systemic and widespread throughout the palm oil and/or sugar industries in Mexico. To address them is likely to require the participation of multiple actors, including national, state and municipal governments, civil society, unions and producer associations.

Based on the finding of the study, the following steps are recommended:

1. **Traceability.** Supply chain mapping including an understanding of the supply base characteristics for each mill.
2. **Engagement and due diligence.** Engagement with Mexican suppliers, including those supplying bottlers and joint ventures, on the priority social

and environmental risks in their specific supply bases. Comprising:

- a. Dialogue with suppliers about their commitment to, and progress toward eliminating all negative social and environmental impacts in their own operations and in those of their supply base. This should include an understanding of the actors involved in the supply base, and type of relationship between them (e.g. Intermediaries, direct suppliers, associations).
  - b. Field verification of the performance against sustainability criteria or on priority issues in the supply base of selected mills, including field observation, interviews with workers and local communities and consultation with local, regional and national stakeholders. Mills should be prioritized in line with the major risks identified in this report including, but not limited to - e.g. risk of expansion onto new land, operating in a region of high risk of use of migrant labour. Sustainability criteria should include:
    - Adequate mechanisms for due diligence on human rights risks in their supply base by the mills themselves
    - (for palm) Ensuring that mills and growers in their supply base have followed international good practice in acquiring the consent of the communities where palm oil is being planted.
3. Implementing action
- a. Develop – with suppliers – action plans to address the priority issues and gaps. This should include both supplier-led actions, and engagement with key local, national and international organizations and existing initiatives able to help address the sector-wide challenges.
  - b. Identify and support capacity building needs to address the priority gaps and challenges.
4. Further research
- Based on this preliminary desk study we recommend 3 areas in which a deeper level of research would be recommended, to better identify the extent of the problem, root causes and intervention strategies:
- a. There is a need to better understand the trends in land acquisition or rental for oil palm expansion in the supply regions, and hence the risks of potential land-grabbing or land conflict; and risks of deforestation. Such research could identify any high-risk regions and generate recommendations for safeguards. Such research should include further investigation of the alleged land rights violation in Chiapas reported by the World Rainforest Movement.
  - b. Further research is needed to identify, understand and reduce incidences of Chronic Kidney Disease of Non-Traditional Causes (CKDnT) in sugarcane workers; PepsiCo and other buyers could support ongoing efforts, and suppliers could contribute to the identification and trialling of programmes to mitigate the risks for workers.
  - c. Greater understanding of the threats to the human rights of migrant workers and their families – especially children – is considered important.

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## 1 Introduction

This report provides a preliminary description of the context and current situation of palm oil and sugarcane production in Mexico; and it is designed to help PepsiCo to understand potential risks that may exist in their own supply chains with regards to 'land rights and other human rights'.

For the purposes of this report the scope has focused on the possible presence of negative human rights impacts in relation to the following sets of issues, identified within the framework of the UN Guiding Principles on Business and Human Rights, as particularly critical for the food and agricultural sector (Nestor, 2013) (Oxfam, 2013) (CHRB, 2016).

- Land rights, land conversion: obtaining Free, Prior and Informed Consent, and/or fair compensation for legitimate landowners, land expansion without community consent.
- Labour rights: child labour, hours and wages, health and safety in working/living conditions, migrant labour, slavery/trafficking, freedom of association and collective bargaining.
- Rights to water and sanitation: water use in agricultural production and processing affecting local communities.
- Transparency, due diligence: mechanisms to identify and track human rights risks within the supply base, and bottom-up effective tools for grievance mechanisms.

This report is not a comprehensive human rights assessment of the specific agricultural sectors in Mexico nor of PepsiCo's actual supply chain. It is intended to guide PepsiCo in the implementation of a second phase of work to look more specifically at sustainability and human rights issues in their own palm oil and sugarcane supply chains in Mexico.

To develop this report, the authors used mainly publicly available reports, some reports of Proforest's own field work in the palm and sugarcane sector in Mexico and information from phone interviews with a small number of researchers, sustainability advisors, and employees of industry and NGOs (see [Annex 1](#)).

## 2 Mexico's agricultural sector, land tenure and human rights

A brief description of the historical, legal and political context is useful to better analyse potential risks related to human rights issues, especially land rights, in relation to palm oil and sugarcane production in Mexico.

Mexico's current land tenure legal framework is the result of revolutions and related reform processes that took place throughout the 20<sup>th</sup> century. The most significant event of the large-scale land reform period (1917–1992) was the redistribution of over 100 million ha (247 million acres) of large farms to households and individuals organized into community groups called *ejidos* (a type of collective landholding) and *agrarian communities*.

The current legal framework<sup>1</sup> recognizes two forms of ownership of land and water: **public and private**: The latter category can include ‘individual or social’ tenure. ‘Social’ tenure refers to the ‘agrarian units’ known as *ejidos* and *agrarian communities* (Warman, 2001) (INEGI, 2010) (See Figure 1.)

**What is an ejido?**

- A form of ‘social’ land ownership.
- A self-organized legal entity with a collective land holding, granted by the state to rural communities through the agrarian reform process.
- Typically ejidos were formed from large estates (*latifundios*).
- Comprised of ‘rights holders’ (called *ejidatarios*) who make collective decisions via an assembly of members.
- They typically have individual plots, common forested areas, grazing land.

There are 29,683 *ejidos* in Mexico, encompassing approximately 86 million ha (RAN, 2016).

**What is an agrarian community?**

- A form of ‘social’ land ownership.
- A self-organized legal entity with a collective land holding, typically associated with traditional (long-term) occupation of the land by indigenous populations. Existed and recognized during the Colonial period, but dispossessed in the 19<sup>th</sup> century. Rights were formally restored and recognized during the agrarian reform.
- A population unit including the land, forests and waters, the ownership of which was recognized or restored to the community, presumed to have had possession of them for time immemorial.

There are 2,393 agrarian communities in Mexico. Communal lands encompass approximately 18 million ha.

Today, neither form of social land ownership implies a particular cultural origin: although ‘agrarian communities’ are typically made up of indigenous peoples, there are also *ejidos* that are mainly or entirely comprised of indigenous people.

Figure 1. Types of social land tenure in Mexico

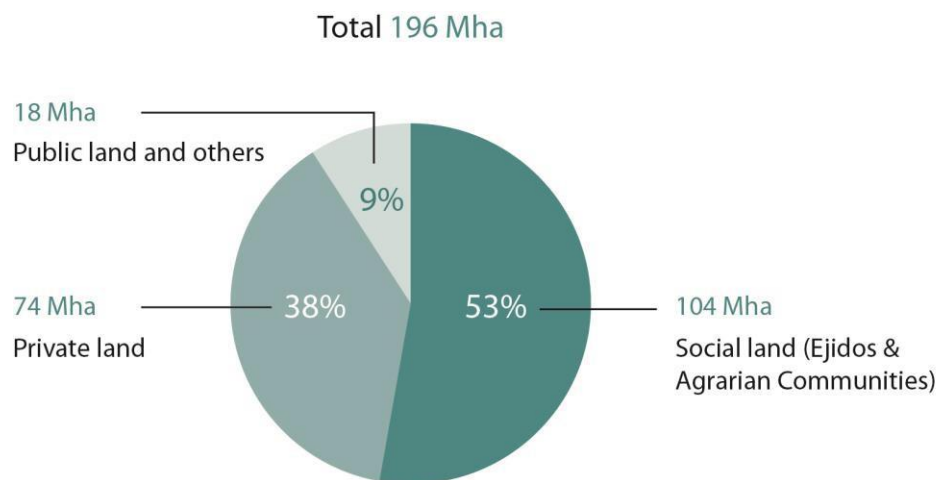


Figure 2. Distribution of land in Mexico  
Source: Morales, 2009; Reyes et al., 2012

Mexico’s 196 million ha of land area are distributed as shown in Figure 2. The figure demonstrates the considerable importance of ‘social property’ in Mexico, in other words, types of land ownership that were (originally at least)

<sup>1</sup> Last reformed in 1992 (Article 27 of the Mexican Constitution and 1992 Agrarian Law)



conceived for communal ownership and use. Both types of social property use a land classification system within their legally recognized land holding:

1. Human settlement area
2. Common use land –designated for communal use; mainly forested areas and grazing lands
3. Land divided into plots – for private use by *ejidatarios*

It should be noted that, because of the historical evolution of land tenure in Mexico, the distribution of *ejidal* lands is not homogeneous. In states such as Campeche and Quintana Roo, about 90% of *ejidos'* lands are common use lands, whereas in states such as Oaxaca and Chiapas, privately used land plots predominate. In these latter states, a large number of rights holders were endowed with small plots, resulting in small *ejidos*, numerous *ejidatarios*, and production units smaller than 5 ha (Robles H. , 2012, p. 307).

### 2.1 Relevant trends: changes in social land tenure and land conflict

The early 1990s brought a significant change in Agrarian Law, with far reaching consequences for the rights of *ejidatarios* and the predominance of the communal system of decision-making over land in Mexico. In 1992, as part of economic restructuring and negotiations for the North American Free Trade Agreement (NAFTA), the constitution was changed to grant *ejidatarios* the right to sell or rent<sup>2</sup> their individually-owned land, without prior consultation with the communal authority, the *Ejido* Assembly This had an important impact on the Mexican agricultural sector, since it opened up *ejidos* to private investment.

*"The ejidatario can make direct use of its land parcel or grant its use or usufruct to other ejidatarios or third parties, through sharecropping, metayage, association, lease or any other legal act not prohibited by law, without the authorization of the assembly or any other authority. Likewise, it may contribute its usufruct rights to the establishment of mercantile and civil companies" (Art 79 – Agrarian Law).*

This most recent reform was accompanied by a number of national programmes for the distribution and regularization of land, whose implementation – or non-implementation – continues to impact land use and land conflict today. Relevant programmes include the Programme of Direct Incentives for the Countryside, PROCAMPO<sup>3</sup>; the Programme for Certification of *Ejido* Rights and Titling of Urban Plots, PROCEDE<sup>4</sup>; and the Programme for Certification of Communal Goods, PROCECOM.

These reforms have faced some criticism. Consolidating the individual as the sole decision-maker on the land that he/she owns has led to accusations of facilitating the commodification of property and weakening the traditional dynamics and governance structures of *ejidos* and communal lands (Maldonado, 2010). It has furthermore been suggested that the reforms led to the exclusion of a generation from land inheritance (due to the previous practice of dividing land among relatives being replaced by formal non-divisible inheritance to a single), and contributed to serious social impacts, including to migration and an absence of local governance: both of which are factors at play in a rise in drug trafficking and violence (Maldonado, 2010).

<sup>2</sup> The rights given also include use rights and using land as guarantees. Property transfer is subject to limitations.

<sup>3</sup> PROCAMPO has the purpose of "delimiting social property (*ejidal* and communal) throughout the country, and issuing the corresponding certificates and titles; such actions will allow drawing up association contracts (lease, sharecropping, metayage) that will attract larger investments in the rural sector and will also resolve land tenure conflicts" (Hernández-Santos, and others, 2006)

<sup>4</sup> Created under the Agrarian Act of 1992, and under the responsibility of the Agrarian Attorney and the National Agrarian Registry, "it has the mandate of informing *ejidatarios* of the steps to follow for obtaining land certificates and titles" (Procuraduría Agraria, 2016).

The reforms permit an acceleration of land re-concentration, a situation facilitated by the *ejidatarios'* newly acquired freedom to dispose of their property. However, some observers have said that this has affected not so much the *ownership* of the land but of its *use* (Soto & Gómez, 2014). Agricultural companies have sought to lease large tracts of land, comprised of multiple small plots owned by numerous *ejidatarios*. Lease contract duration may vary from months to many years. Thus, some observers have said that the current dynamic in Mexico is not one of land-grabbing, as in other countries of the region or other continents, but of land concentration through the control of productive processes (e.g. supply of seed and inputs) (Soto & Gómez, 2014). The government's programmes promoting contract agriculture have been determining factors in this process.

It is important to note that although the ejidal distribution and land endowment processes throughout the country have made considerable progress in the titling process launched by PROCEDE, conflicts over demarcation still exist between communities, ejidos and municipalities. Some of these dates back to the colonial times according to SEDATU.

It is also worth noting that the states of Chiapas, Guerrero, Oaxaca and Michoacán (south coast of Mexico) – and important palm and sugarcane producing states – are regarded by the Ministry of Agrarian, Territorial and Urban Development as high agrarian risk states, given the conflicts stemming from the incomplete process of land redistribution therein (Madera, 2012). Furthermore, it is the predominantly indigenous municipalities that concentrate the most complex agrarian conflicts occurring in the country (SEDATU 2013 in (CDI, 2014)).

### 2.2 Indigenous peoples in Mexico

Mexico's indigenous population is the largest in Latin America. The 2010 census reported that 15.7 million people consider themselves as indigenous – which is 14.9% of the Mexican population. The indigenous population stands out for its diversity and plurality. Mexico ranks third in the world for ethnic diversity, with 62 living languages and 100 dialects (Robles & Concheiro, 2004).

Although indigenous populations are present in all the Mexican states, the National Commission for the Development of Indigenous Peoples (CDI, for its acronym in Spanish) recognizes 25 predominantly indigenous regions distributed across 803 municipalities in 20 states. Of these the largest concentration is found in the following states: Oaxaca (294 municipalities with presence of indigenous populations), Yucatan (90), Puebla (58), Chiapas (47), Veracruz (47), Hidalgo (22), San Luis Potosí (14), and Chihuahua (5) (CDI, 2014).

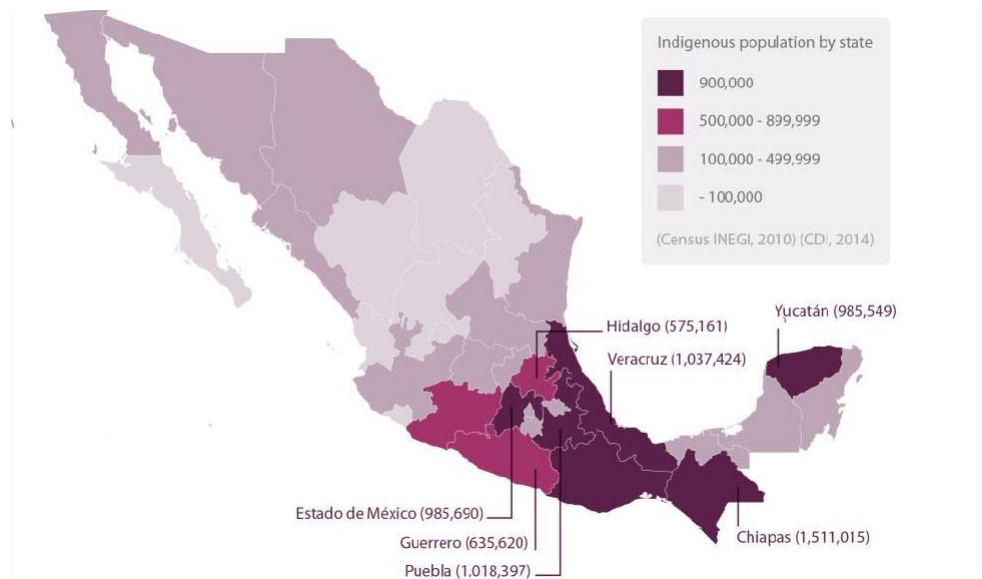


Figure 3. Indigenous population by state  
Source: Census INEGI, 2010, in (CDI, 2014)

Indigenous peoples are given special recognition under Mexican law, as mandated by Article 2 of the Mexican Constitution and in compliance with several international legal instruments adopted by the Mexican government. Under the Constitution, indigenous peoples in Mexico have the right to self-determination, which includes among others, the right to autonomy, education, infrastructure and non-discrimination. However, in practice, rights vary from state to state, and indigenous peoples suffer discrimination in many spheres (OHCHR, 2011). Mexico has adopted Convention 169 of the International Labour Organization (ILO), and has a protocol in place for consultation with indigenous peoples and communities. In 2001, a constitutional reform conferred land rights to Indigenous Peoples, especially regarding their natural resources and lands, in line with Convention 169. And, in 2011 and 2012, a new human rights reform established the human rights’ international instruments and the principle *pro homine* (maximum protection to people) as legally binding, thus further enforcing the UN Declaration on the rights of indigenous communities (G. Chapela, personal communication, May 5, 2017). The CDI is responsible for liaison between indigenous authorities and the Mexican government for the formulation of public policies aimed at the development of those communities (CDI, 2013).

The most common land ownership type (by area) among indigenous populations is social property: three out of every four agrarian units are ‘ejidos’, one in four are ‘agrarian communities’. However, they also hold significant land as private property. Typically, whether private property or social property, land held by indigenous populations shares similar characteristics: poor quality land, presenting challenges for cultivation, and with small plots (5 ha on average) (Robles H. , 2002). In addition, legal irregularity is also common (Robles H. , 2002).

Indigenous agrarian units constitute over 22 million ha; 22% of the total area owned by *ejidos* and communities. Notably more than half of the agrarian units that include temperate or tropical forest also include indigenous populations (Robles & Concheiro, 2004).

Although the Mexican Constitution has a strong recognition of indigenous land rights, in practice there are still a number of challenges facing indigenous people: land entitlement, discrimination, administration of justice, internal displacement,

bilingual education, language, migration, and constitutional reforms (OHCHR, 2011). The indigenous population is also characterized by precarious living conditions, marginality, and a dependence on agriculture (Robles & Concheiro, 2004). In 2011, the UN Special Rapporteur on the Right to Food, warned that 19.5 million Mexicans, approximately 18% of the population, are food insecure (Urquía-Fernandez, 2014). An overwhelming majority of food insecure people are in rural areas, with a disproportionate number of indigenous peoples among them.

### 2.3 Labour rights and conditions

Although agriculture only contributes around 4% of GDP, it is an important source of employment in the country, employing around 14% of the workforce, including those in subsistence farming and domestic-oriented production (Terra Nova Ventures, 2012). Working conditions within the agriculture sector have come under criticism, particularly for export crops (OIT, 2014). The culture of wearing protective equipment – especially in the field – is often not well adopted, and workers are consequently exposed to risks. Child labour is recognized to be a problem in many production systems including sugarcane (OIT, 2014).

According to our interviewees, even where agricultural production companies have good labour practices among their direct workers, they are often not accustomed to expanding efforts to include workers in their supply base, such as among small and medium outgrowers.

Migrant labour is also commonplace: there is massive seasonal internal migration within Mexico during labour intensive seasons, particularly harvest, with well-established patterns (G. Chapela, personal communication, May 5, 2017). In addition, there is significant transboundary migration, especially in the south-eastern states from Central Americans into the coffee producing regions. There are also some migrants who work in agriculture in Mexico en route to seeking to enter the USA. Central American workers sometimes fill the gaps left by local workers that emigrate to other parts of Mexico or the United States looking for better paid opportunities (Durand, 2011: 88 in (OIM - El Colegio de la Frontera Norte, 2016). Because of their illegal status, the inability of migrants to assert their rights impedes their access to safe housing and jobs, and to assistance in emergency situations, making them a population vulnerable to human rights violations (OIM - El Colegio de la Frontera Norte, 2016)

### 2.4 Environment

This report focuses on land rights and other human rights. Nonetheless, we believe it important to flag up some environmental issues because of the potential impacts of oil palm and sugarcane operations on the conservation and management of natural resources and, therefore, for the implementation of PepsiCo and other buyers' policies and commitments on zero deforestation, no conversion of High Conservation Values (HCV) and High Carbon Stock (HCS), care for the environment and legal compliance.

Mexican environmental institutions are considered to have limited capacity to enforce environmental regulations (Westendarp, 2015). Therefore, the expansion and management of cultivation areas may have negative consequences for conservation and management of natural resources despite legal frameworks designed to protect them. While this might put some protected areas at risk, the biggest threat of deforestation is in areas outside of formal protection; the fragmentation and reduction of forested areas constitute the biggest threat to biodiversity conservation (CONABIO, 2016).

These risks vary between the commodities. The goals and plans for the expansion of oil

palm – using both smallholder land and company-owned land – present a serious threat, but also an opportunity for PepsiCo to positively influence how and where such expansion areas are established. In sugarcane, only small-scale expansion may be anticipated. However, the proper use of agrochemicals and water resources, particularly with regard to wastewater management and water resource management, are the major challenges.

### 2.5 Transparency and due diligence

The UN Guiding Principles on Business and Human Rights state that it is the responsibility of business enterprises to identify the impact their operations have on human rights and to take concrete measures to improve the conditions of those communities affected by them. Therefore, companies are responsible for conducting due diligence, establishing mechanisms to address complaints and claims, and implementing participatory processes to remedy the damage caused (OHCHR, 2011).

Interviewees with experience in social and environmental audits in Mexico informed us that due diligence on human rights is not yet commonplace in the agricultural sector in Mexico. There are typically limited systems in place to help identify and track human rights risks in supply chains, and few effective mechanisms that allow grievances to be aired and resolved. However, groups of mills and agribusinesses are increasingly attempting to address these issues, in large part due to pressure from the international markets for guarantees of socially and environmentally responsible production, a rise in concern about human rights abuses generally in Mexico. Additionally, and partly due to similar incentives, initiatives to collectively address more systemic issues are starting to appear. Organizations such as the recently created Mexican Federation of Oil Palm (FEMEXPALMA, for its acronym in Spanish) and the National Chamber of the Sugar and Alcohol Industry (CNIAA, for its acronym in Spanish) are participating in efforts on this front (see sections in following chapters).

### 2.6 Other challenges

It is worth mentioning two other issues that have a profound impact on the Mexican agrarian sector: corruption, and narcotics production and trafficking.

Several studies suggest that Mexico has a high level of corruption relative to other countries (KPMG 2008 cited in (Casar, 2015)). A study on corruption in the land sector globally found that “In Mexico, [...] illegal payments to land authorities ranked among the top 10 services plagued by bribery in the country. The survey’s results show that a bribe has to be paid at least once out of every 10 times that a person solicits a land permit.” (Transparency International-FAO, 2011). A study by KPMG in 2008 found that 44% of businesses in Mexico made ‘extra-official payments’ to public authority employees (KPMG 2008 cited in (Casar, 2015)). Mexico’s score and ranking on the global Corruption Perception Index fell in both 2014 and 2016 (Transparency International 2016). In 2016, they scored only 30 out of a possible 100 and were 123rd in the global country rankings (Transparency International, 2016). The authors’ experiences of relationships within the cane growing sector suggests that there can be historical mistrust between cane-grower unions, mill management and the cane-growers themselves, often linked to accusations of mismanagement of resources, and use of organizations for political gain. Frustrations and accusations of corruption between these actors are also reported in the Mexican media (Covarrubias, 2015)

Mexico is currently dealing with an escalation of drug-related violence and instability, and a rise in the emergence of self-defence forces reacting to this, and substituting local authorities in some regions. Some of the most affected regions are in important sugarcane and/or oil palm growing states.

### 3 Oil palm in Mexico

Mexico has a large palm oil supply deficit to meet domestic demand. In 2015, the country produced 118,724 metric tons (MT) of crude palm oil (CPO), which meets only 20% of the country's consumption, and 10,502 MT of palm kernel oil (PKO), or 16% of the national consumption. The total domestic consumption amounts to 583,466 MT of CPO and 62,623 MT of KPO (ANIAME<sup>5</sup>2015 in (F. Arreola, personal communication, July 18, 2016).

Responding to the high domestic demand and opportunities for export, federal and state governments have been promoting policies to improve production through financing and modernization of production processes, aimed at benefiting both small producers and larger companies.

Below we summarize the political and institutional context of oil palm in Mexico and provide an overview of the supply chain and relevant stakeholders and domestic production. Finally, we present an account of the human rights and land tenure challenges in the sector.

#### 3.1 Historical, political, and institutional context

The first oil palm plantation in Mexico was established in 1948 in the coastal zone of Chiapas. It was not until the 1980s that the federal government began promoting oil palm plantations to try to meet the supply deficit in the domestic market. Since then, an accelerated process of establishing new plantations in Mexico began. The Government of Mexico started providing seedlings and offered financial and technical support to encourage smallholder oil palm cultivation.

Since 1996, the government has implemented several programmes aimed at further developing the oil palm sector in Mexico, including the National Programme for Oil Palm (1996) which targeted the states of Campeche, Chiapas, Tabasco and Veracruz, the Palm Oil Product System (2003), and the Strategic Project for the Sustainable Rural Development of Mexico's South–Southeast Region – Humid Tropic (2009–2013). The latter, commonly known as the Humid Tropic Programme, aimed to promote social and private investments through support for improving the financial viability of crops with market potential. Such programmes have fostered the rapid growth of African oil palm production. Information provided by the interviewees indicates that the Palm Oil Product System, the flagship programme for consolidating the oil palm agro-industrial chain, is still operating, and providing support to the sector. However, some interviewees for this report considered the scheme to be open to political manipulation and corruption, and to lack independence and transparency, reducing its impact. The government continues to provide support for oil palm production and expansion. During the current presidential term (2012–2018) the Strategic Oil Palm Project for the state of Campeche was launched: the federal government, in coordination with the state government, local entrepreneurs, and palm growers, has expressed an interest in establishing **100,000 ha of new plantations over the next six years**, with a target of 50,000 ha dedicated to oil palm production by 2018 (SAGARPA, 2016).

From a competitiveness perspective, government support programmes implemented over the last 30 years to strengthen the sector have been partially successful. On the one hand, they have supported the product chain development by providing incentives for establishing new plantations and constructing mills, many of them by social enterprises. On the other hand, such programmes have not

<sup>5</sup> Asociación Nacional de Industriales de Aceites y Mantecas Comestibles, A.C.

succeeded in consolidating the sector, and serious challenges remain with regard to management, quality, and consequently the fresh fruit bunch (FFB) yields and profitability of smallholders’ production. According to some of our interviewees, there is a lack of institutional support for the creation and development of technical and organizational capacities, particularly of the smallholders at the very base of the supply chain, to achieve adequate management and commercialization of the crop. Concerns were also raised that previous initiatives to promote commercial crop production in the same regions – such as programmes to promote rubber – tended to be abandoned, often without evaluation, when a change of government took place.

3.2 Overview of the supply chain

3.2.1 Domestic production and major production zones

Total palm oil production in Mexico currently amounts to 118,000 MT, which makes it the seventh largest producer in Latin America. There are 82,150 ha planted with oil palm in Mexico (SIAP, 2015) and between 8,000 and 11,000 palm growers. Oil palm is currently cultivated in four states: Campeche, Chiapas, Tabasco and Veracruz and three other states have been identified as having potential for production (see below).

Chiapas has the largest area under oil palm cultivation (53% of the country’s total), the most municipalities where oil palm is grown, and the highest number of operating and planned mills (See Table 1 and Table 2). Most of the plantations are rain-fed and only a few hectares have irrigation.

**Palm oil imports**

In 2015, Mexico imported 464,742 MT of raw palm oil, which accounted for about 80% of the total domestic consumption (SIAP, 2015).

**Chiapas, Mexico’s leading producer state**

The State of Chiapas ranks first in the country in terms of both area under cultivation and production volume with 400,000 MT FFB, contributing 66% of the total domestic production (SIAP, 2015).

Table 1. Distribution of the area under oil palm cultivation and fruit production in Mexico.

State	Area under cultivation		Area harvested		Production (MT FFB*)		Average yield FFB (MT/ha)
	(ha)	%	(ha)	%		%	
<b>Chiapas</b>	43,468	52.9	34,215	62.7	438,976	65.9	12.83
<b>Campeche</b>	18,056	22.0	3,857	7.1	34,793	5.2	9.02
<b>Tabasco</b>	13,447	16.4	9,526	17.4	128,939	19.4	13.54
<b>Veracruz</b>	7,179	8.7	7,002	12.8	63,528	9.5	9.07
	<b>82,150</b>		<b>54,600</b>		<b>666,236</b>		<b>12.20</b>

Source: (SIAP, 2015)

\*MT FFB: Metric tonnes of fresh fruit bunches





Table 2. Municipalities with the largest area under cultivation and largest yields per state

State	No. of municipalities with oil palm plantations in the state	No. of mills in operation <sup>6</sup>	No. of mills under construction	Source of capital	Farming system
Chiapas	23 <sup>7</sup>	8	3	Social/Private	Rainfed/irrigation
Tabasco	9 <sup>8</sup>	2	1	Private	Rainfed
Veracruz	17 <sup>9</sup>	1	-	Private	Rainfed
Campeche	6 <sup>10</sup>	4	-	Social/Private	Rainfed/irrigation
<b>Total</b>	<b>52</b>	<b>15</b>	<b>4</b>		

Source: (SIAP, 2015; FEMEXPALMA, personal communication, May 18, 2017)



Figure 4. States and municipalities with palm oil plantations in Mexico

Source: (SIAP, 2015; FEMEXPALMA, personal communication, May 18, 2017)

<sup>6</sup> Details on the oil palm mills can be found in Annex 3.

<sup>7</sup> The 23 oil palm-producing municipalities in the State of Chiapas are: Acacoyagua, Acapetahua, Benemérito de Las Américas, Catazajá, Chilón, Escuintla, Frontera Hidalgo, Huehuetán, Huixtla, Juárez, La Libertad, Mapastepec, Marqués de Comillas, Mazatán, Ocosingo, Palenque, Pijijiapan, Reforma, Salto de Agua, Suchiate, Tapachula, Tuzantán, Villa Comaltitlán

<sup>8</sup> The 9 oil palm-producing municipalities in the State of Tabasco are: Balancán, Centro, Emiliano Zapata, Huimanguillo, Jalapa, Macuspana, Tacotalpa, Teapa, Tenosique.

<sup>9</sup> The 17 oil palm-producing municipalities in the State of Veracruz are: Acayucan, Chinameca, Cosoleacaque, Hidalgotitlán, Hueyapan de Ocampo, Jncipal de Morelos, Mecayapan, Jesipalities in the State of Veracruz are: Acayucan, Chinameca, Cosoleacaque, HidalgotitLas Amricas, Catazan de Jupan, Jesipalities in the

<sup>10</sup> The 6 oil palm-producing municipalities in the State of Campeche are: Campeche, Candelaria, El Carmen, Champotón, Escárcega, Palizada.

### 3.3 Expansion potential

The National Institute for Forestry, Agriculture and Livestock Research (INIFAP, for its acronym in Spanish) has identified 2.5 million ha in the states of Veracruz, Tabasco, Chiapas, Campeche, Quintana Roo, Oaxaca and Guerrero with potential for oil palm cultivation (Santa Cruz, Morales, & Palacio, 2012).

In 2012, some 558,188 ha in the State of Chiapas were identified as showing good potential for oil palm cultivation, and another 399,569 ha with medium potential: these represent 7.6% and 5.4% of the State's area, respectively (INIFAP). The good and medium potential areas are located in the Soconusco, Isthmus coast, North and Selva regions.

An analysis conducted by SAGARPA in 2008 showed that Tabasco State had some 324,976 ha with potential for oil palm cultivation, distributed in 13 municipalities but particularly concentrated in Macuspana (60,032 ha); Huimanguillo (48 733 ha), Jalapa (44,832 ha), Centro (31,103 ha) and Tacotalpa (29,484 ha).

### 3.4 Characterization of the oil palm sector

An outstanding feature of the oil palm sector in Mexico, in contrast to its neighbour Guatemala, is the strong participation of small producers in the supply base (F. Arreola, personal communication, July 18, 2016).

A producer in Tabasco State typically owns 5–6 ha on average (CEDRSSA, 2014) Oil palm plantations in Campeche range between 3 and 5 ha, although some individual producers manage plantations of 25 ha or more.

No official data were found on the proportion of the area under cultivation that is directly owned or managed by agribusiness companies. One interviewee suggested that companies establishing mills in the region are planning to obtain land for cultivation under direct management; another said that the tendency is more typically that of companies leaving ownership and management to the land-owners, and forming a contract-farming relationship. Whether or not they purchase land, most depend on small producers for at least part of their supply base, which implies a need to work hand in hand with them.

The Mexican palm oil sector is also characterized by its low yields per hectare: the Mexican average is 1.2 tonnes of oil/ha, compared to 3.4t/ha in Colombia and 6.4 t/ha in Guatemala. This is strongly linked to the dominant participation of small-scale producers in Mexico, and the lack of technical support they receive.

There are 13 mills currently in operation in Mexico. Most of them belong to private sector companies, but there are at least five in operation and one under construction that are partially or entirely owned by producer associations or social enterprises (See [Annex 3](#)). Several of the mills in operation, or under construction are owned by Central American companies (groups with ownership and existing mills in Guatemala, Costa Rica, Nicaragua). These companies – who often bring in senior management from Central American countries – are said to be unfamiliar with Mexican communal land tenure and related social structures. In Guatemala, the model has been one of land purchase, with negligible smallholder production in the supply base. Companies are therefore on a steep learning curve with regard to developing production in the Mexican context.

This is shown in figure 5 and in [Table 3](#) which summarizes the main features of the actors involved in the palm oil supply chain.

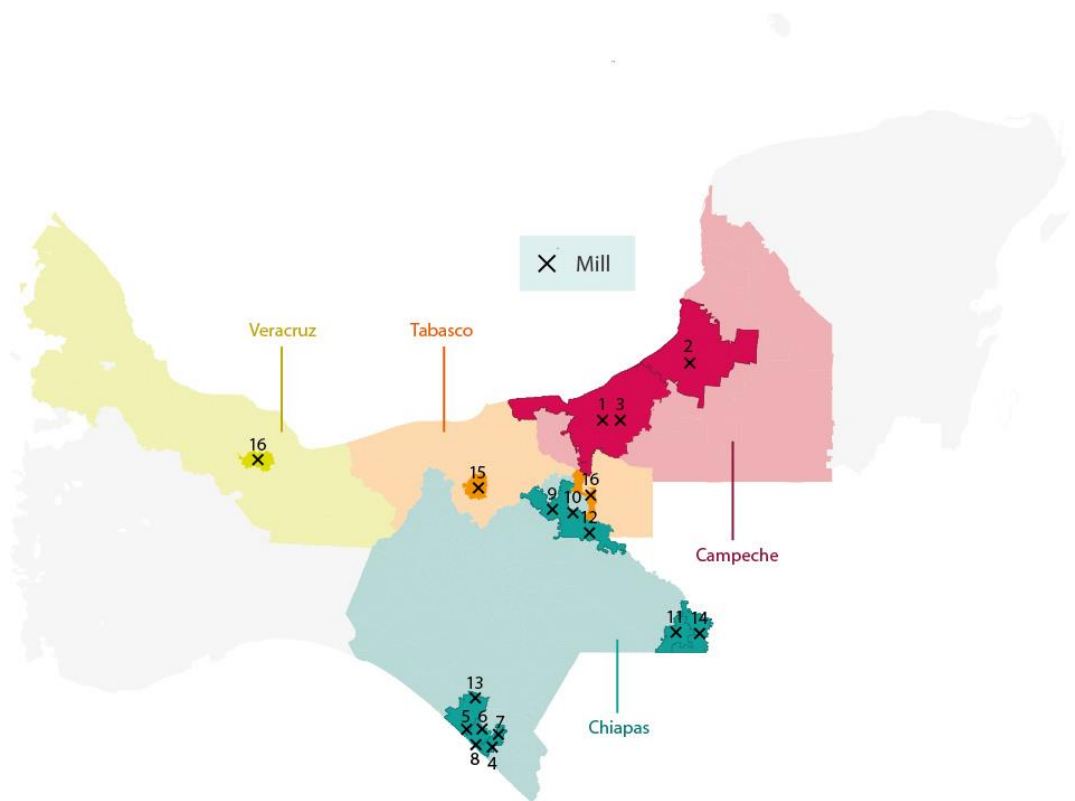


Figure 5. Palm oil mills in Mexico

Table 3. Main actors involved in the palm oil supply chain

Supply chain processes	Actors	Description
Production	Individual, mid- and large-scale producers	Mostly own plantations >10 ha, technically advanced, using fertilizers, with irrigation and/or drainage
	Associations of small-scale producers	Formally organized groups of <i>ejidatarios</i> ; each of whom owns a small scale (10 ha average) plantation; little technology used.
	Individual small-scale producers	Typically <i>ejidatarios</i> , working independently (with no formal groupings) with very low use of technology, often with smaller plantations (<10 ha)
	Producing companies	Commercial companies owning larger plantations (>10 ha) generally technically advanced, with irrigation and /or drainage.
Intermediaries	‘Middle-men’ Known locally as ‘coyotes’	Individual traders who buy fruit from very small producers (0.5-5ha) for sale to mills. Most common in indigenous regions of Chiapas.

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Collection centres	Private industry	Centres owned by private companies to facilitate collection of FFB from small-producers who cannot afford to transport their product to the mill.
	Social enterprises	Centres owned by formally established 'social enterprises' to collect fruit from their members and other, non-affiliated, small producers
	Producers associations	Centres established by producers' associations to gather fruit from their associates
Processing	Social sector mills	Mills owned by social enterprises or producers' associations
	Private industry mills	Mills owned by private companies
Commercialization	Refineries	Refining plants owned by private companies

Source: Villafuerte-Solís, 2015

Annex 4 and Annex 5 list some of the key stakeholders currently involved in the oil palm sector in Mexico.

### Sustainability initiatives

The Mexican palm oil industry has been responding to international interest in sustainability in a number of practical ways:

- FEMEXPALMA and ANIAME have been actively promoting Roundtable on Sustainable Palm Oil (RSPO) certification along the supply chain and the National Interpretation of RSPO's Principles & Criteria (P&C).
- The sector has engaged in capacity building on different topics, such as: RSPO P&C, High Conservation Value (HCV) introductory concepts, FFB quality criteria, pest and disease control and plant nutrition.
- International organizations, national producers and mills have collaborated on initiatives designed to support smallholders to meet sustainability requirements.
- A palm oil research and outreach network in the palm oil regions has been built in order to bring together the academic and productive sectors to promote applied research on palm oil.
- Upstream companies have strengthened their sustainability and organizational capacities to support the supply chain downstream to achieve best practices and attain sustainability certifications.

### 3.5 Overview of land tenure and human rights in the oil palm sector in Mexico

#### Labour conditions

Our interviewees, including those involved in supporting responsible production in palm cultivation have observed practices in the sector which suggest a risk of inadequate labour conditions. Specifically, there have been suggestions that the pay and conditions of workers hired by some palm oil companies may not meet national legislation, there is a risk of child labour in the supply chain, and there is poor provision and/or use of protective equipment and related training and supervision.

Immigrant labour (e.g. from Guatemala) is likely to be undocumented and is thought to be working for both the larger companies and for the medium outgrowers. Immigrant workers are known to be more vulnerable to abuses in their

labour conditions (pay, rights, health and safety etc.). Intermediaries are reported to operate in the supply of immigrant labour, as workers crossing the border from Guatemala have long been an important labour force in coffee harvesting in southeast Mexico. This potentially raises questions of the risk of fee-payment by potential labourers.

### Gender

From a gender perspective, according to (Linares, 2014), significant inequalities can be perceived between men and women both in daily activities and in productive dynamics. The land inheritance system is patrilineal: the percentage of land owned by women is lower than that of men. Women typically have less access to formal education and poorer Spanish language skills. Most of the palm cultivation activities are carried out by adult males, with only some exceptions such as sorting small fruits, a task which is assigned to women and children. Female participation in commercial spaces, buying and selling fruit, is very limited. In most cases, it is their husbands or sons who take care of product commercialization and consequently receive the income from the product sales (Linares, 2014).

### Food security

The largest percentage of land planted with oil palm in Mexico belongs to small producers, mostly *ejidatarios*, who own 1 to 5 ha each and have received government support for establishing a plantation. The government has been criticized for the approach to provide small-scale growers with inputs and/or financing for oil palm cultivation, without adequate follow-up (Vaca, Golicher, Cayuela, Hewson, & Steininger, 2012). Critics say that technical assistance has been scarce, leading to a low productivity, low quality crop with adverse environmental impacts. This approach, characteristic of the Mexican government's scheme for productive restructuring, reorients agricultural production away from food crops for the subsistence of rural and indigenous communities, toward commercial crops. It is therefore considered by some critics to present a threat to their food security.

### Environment

To date, most oil palm plantations have been established in areas that had been previously deforested for livestock ranching and other less profitable activities including mango (Covaleda, Aguilar, Ranero, Marín, & Paz, 2014; Vaca, Golicher, Cayuela, Hewson, & Steininger, 2012). However, if oil palm is perceived as profitable and/or subsidies continue, more producers are expected to seek to establish oil palm, and existing growers may seek to expand, which could present a risk of deforestation and loss of high biodiversity habitats. There is evidence that this is already happening in some regions: a recent study by Alianza México REDD+ and USAID found that deforestation was occurring for oil palm cultivation in the municipalities of Marqués de Comillas and Benemérito de las Américas in Chiapas State. In the latter municipality, the report states that “the recent expansion process of palm cultivation has translated into an intense deforestation” (Covaleda, Aguilar, Ranero, Marín, & Paz, 2014). Given government plans for new plantations, this situation could rapidly escalate, posing a threat to Mexican temperate and tropical forests as well as other ecosystems (World Rainforest Movement, 2009).

Engaging with suppliers and other actors on the topic of responsible expansion might be an opportunity for PepsiCo to influence the sector via the implementation of its environmental and ‘zero deforestation’ commitments, its Forest Stewardship Policies, and its RSPO membership commitments.

Other environmental issues to be aware of; burning for agricultural clearance

remains common, with implications for climate change, the achievement of Mexico's emissions reduction commitments, RSPO certification, and compliance with PepsiCo's policies. In the case of palm mills, effluents from the oil processing can represent a source of soil and water pollution if not properly treated, threatening downstream communities that depend on the water resource.

## 4 Oil palm in Chiapas

### 4.1 Political, institutional and cultural context

Political and social conditions in the state of Chiapas are strongly influenced by the poverty of rural and indigenous communities that were perceived to have benefited less from the 1910 revolution and resulting agrarian redistribution compared to the rest of the country. Despite having enormous natural resources, the indigenous and rural populations of Chiapas are exposed to various vulnerabilities (CONEVAL, 2014) aggravated by the productive reconversion scheme promoted by the federal government involving the expansion of single crop commercial agriculture over large areas (Villafuerte-Solís, 2015).

In 1994, in response to the signing of the North American Free Trade Agreement (NAFTA) between Mexico, the United States and Canada, the state of Chiapas was the stage of the uprising of the Zapatista Army of National Liberation (EZLN), an insurgent force made up of *campesinos*<sup>11</sup> and indigenous peoples. Having started in the Lacandon zone, the insurrection began invading large farms in Chiapas, demanding the redistribution of the land, as well as the restructuring of the new economic order imposed by the Mexican state. In 2005, the EZLN announced the end of its military activity and its shift to political activity.

According to (Núñez, Gómez, & Concheiro, 2013, p. 48), the military and political activity of EZLN, along with support from the Tzeltal, Tzotzil, Tojolabal, Chol, Mam, and Zoque peoples, as well as from the non-indigenous rural population, resulted in the establishment of 752 agrarian units (*ejidos*) between 1991 and 2007.

Chiapas remains, along with Oaxaca and Guerrero, one of the Mexican states with the highest poverty rates – a result of the weak productive dynamics of rural and indigenous peoples (Villafuerte-Solís, 2015). There is also a notably higher rate of population growth than in other parts of Mexico, which generates a constant pressure for new resources (G. Chapela, personal communication, May 5, 2017).

In response to this scenario, the Mexican government has promoted productive restructuring projects that follow a production model based on competitiveness. As stated by (Villafuerte-Solís, 2015, p. 19) such models aim to guarantee better income for small farmers via commercial crop production so that they can gain access to food through purchase.

Despite the economic development and hunger eradication programmes that have been implemented (such as the National Crusade against Hunger), the 2014 Poverty Census for the state of Chiapas showed that the Chiapas population suffers educational lag (31%), difficult access to health (21%) and to social security (83%), lack of quality housing (27%) and of basic services in their households (57%), as well as lack of access to food (28%).

### 4.2 Chiapas, Mexico's lead producer of oil palm

In the period 2006–2012, the government of Chiapas promoted the production

<sup>11</sup> *Campesino* is a common Spanish term sometimes translated as 'peasant farmer'; often referring to anyone from the rural population.

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of biofuels, consolidating the state as the largest producer of oil palm in the country. Currently, oil palm production in Chiapas is concentrated in four economic zones: Soconusco, Istmo-Costa, the Zona Maya and Tulijá, which comprise 43,468 ha or 66% of the country-wide area dedicated to this production activity (SIAP, 2015).

Table 4. Municipalities with the largest production in the State of Chiapas.

Largest producer municipality	Socio-economic zone	Area under cultivation (ha)
Acapetahua	Soconusco	10,626
Mapastepec	Istmo Costa	8,261
Benemérito de las Américas	Zona Maya	5,549

Source: SIAP, 2015

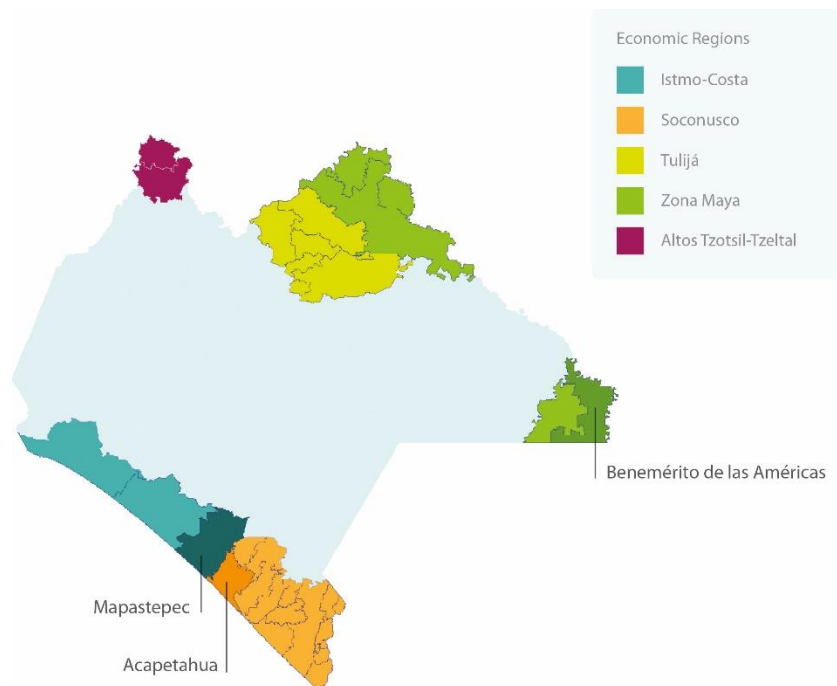


Figure 6. Chiapas economic regions with palm presence (the three largest producer municipalities highlighted)

The Ministry of Rural Affairs (Secretaría del Campo) of the Government of Chiapas supports the construction of nurseries and provides plant material to producers for establishing new oil palm plantations. The State Trust Fund for Commercial, Agricultural and Agroindustrial Development (FEDCAA for its acronym in Spanish), provides cash and fiduciary guarantees to support financing (SECAM, 2016).

70% of the oil palm fruit supplied to the mills comes from individual and organized producers, while the remaining 30% comes from plantations owned by agroindustries. In addition to the new private mills that have been established in recent years, there are also ongoing efforts by social sector producers to establish their own agroindustries and thus integrate the processing stage of the chain. This is the case of the social enterprise Zitihualt in Soconusco, Chiapas (Salas, 2011).

There has been opposition to efforts to promote oil palm cultivation in Chiapas. This

comes from socio-political activities opposed to commercial monocultures and from environmentalists concerned about impacts on tropical ecosystems, particularly in those close to the Lacandon zone. However, many initiatives welcome palm oil cultivation as an economic activity for small-scale producers, although they note that there is still much to be done in terms of technological adoption to achieve productive performance (yield and profitability) levels comparable to those of other countries such as Guatemala, Indonesia and Malaysia (Santa Cruz, Morales, & Palacio, 2012)

### 4.3 Current challenges in land tenure and human rights in the oil palm sector in Chiapas

#### Land conflicts

60% of land in Chiapas is social property, with 3,112 agrarian units, including *ejidos* and communities (SEDATU, 2012, in (Medina, Tejeda, Carrillo, & Mila, 2014). According to the latest ejidal census (2007), 38% of the agrarian units completed the land titling process but 371 land conflicts remained, related to land invasions or boundary disputes between agrarian units (Núñez, Gómez, & Concheiro, 2013).

These land conflicts can be characterized as:

- On-going – on average for 40 years
- Involving *ejidos* and/or indigenous communities
- Having in some cases led to violent confrontations with loss of human lives
- Being located in the poorest and most marginalized micro-regions
- Being further compounded by other social, agrarian, political, religious and economic factors (Madera, 2012).

The property size in Chiapas depends on the type of ownership. The largest and best quality lands in the State are still owned by a few large landowners and cattle ranchers (CADHM, 2008). In 2000, the average private property size was 76.6 ha per owner, which represented 36,6% of the total land surface and was owned by 11% of the total beneficiaries. *Ejidal* land, with an average of 16 ha per *ejidatario*, constituted approximately 50% of the total surface and was owned by 72% of the beneficiaries. Communal land, with an average of 22 ha, represented 13% of the land and was owned by 12% of beneficiaries (Tarrío García & Concheiro Bórquez, 2006). The exploitation of natural resources, the expansion of cattle ranching and internal Chiapas migration from Los Altos, a high-density population area with poor soils, towards more prosperous regions in the state, intensified in the decades following the reform and the battle for prime land. Starting in the 1950s, many *campesino* and indigenous people were forced to relocate into the Lacandon zone (CADHM, 2008).

In 2009, the World Rainforest Movement denounced actions being carried out by the state government to authorize the construction of palm oil mills inside federal protected areas such as the Montes Azules Biosphere Reserve, and "violently expelling the local population" (World Rainforest Movement, 2010). We found no alternative sources, nor individuals which confirmed this, however such accusations demand further investigation since, if found to be true they would represent a serious abuse of human rights including of the rights of *campesinos* or indigenous communities.

#### Smallholders and labour rights

Interviewees commented that smallholder producers and their labourers may lack the appropriate tools (oil palm fruit harvesting knives, among others) to make the harvesting process more efficient and safe, and occupational health and safety equipment is uncommon. On top of that, they have typically received little or no



training, or technical advice, for the cultivation, control, management and harvesting of plantations.

Labour on smallholder farms is typically informal, using verbal contractual agreements, with no social security, insurance etc. In the Chiapas countryside, children and adolescents commonly work alongside their parents from an early age (Ayala et al, 2013: 663 in (OIM - El Colegio de la Frontera Norte, 2016)).

Interviewees commented on the low levels of understanding among smallholders about how fruit pricing is established. This leads to mistrust and misunderstandings with the mills and puts smallholders at a disadvantage when negotiating sales.

### **Migrant labour**

Chiapas is one of the states with the highest levels of migrant labour from Central America: having traditionally come in their thousands to work on coffee harvesting (Hernández Navarro, 2004). Guatemalan workers are now found working in oil palm plots. As mentioned previously migrant (possibly undocumented) labour is at particularly high risk of abuses of rights or poor living or working conditions.

## 5 Sugarcane in Mexico

### 5.1 Political and institutional context

Sugarcane was introduced to Mexico by the Spanish in the sixteenth century. It is one of the crops with the greatest area under production in Mexico and has become one of the most emblematic commodities produced in the country. Sugarcane contributes 0.5% of Mexico's gross domestic product (México. Gobierno de la Republica, 2015)

Since the 2005 Act for the Sustainable Development of Sugarcane, which regulates sugarcane production dynamics, governments have promoted a dialogue between producers, sugar mills and state agencies to consolidate and improve sugarcane production processes.

The act was also a response to the critical situation that sugar production had reached at the 2001 harvest, which also exposed system failures throughout the country. The low efficiency, the disorder of the sugar market and the corruption inside the producer's guild, compromised the achievement of that year's production target. In response, the government expropriated 27 of the 60 mills in an attempt to put the sugar production system in order and promote its modernization. Once this goal was achieved, the government gradually withdrew from the management of the expropriated sugar mills, allowing sugar production to become an entirely private industry (GAM, personal communication, 19-20 September 2016).

The National Programme for the Sugarcane Agroindustry 2014–2018 aims at reaching a production target of 7 million tonnes of sugar in 2018 (México. Gobierno de la Republica, 2015). According to the 2015 Achievement Report of the National Programme, its main objectives are to encourage investments in infrastructure, machinery and technological innovation, partnerships among smallholders with the aim of reaching an optimal productivity scale, crop modernization, generation of ethanol and liquid sugar from surpluses, and increased credit (México. Gobierno de la Republica, 2015).

### 5.2 Initiatives for sustainable production

One of the five main objectives of the National Programme for Sugarcane Agroindustry 2015–2018 is to improve the sustainability of the sugarcane agroindustry by promoting the adoption of sustainable practices and technologies in productive processes.

CONADESUCA has developed a System of Sustainability Indicators aimed at measuring sustainability actions implemented by mills and their supply zones (CONADESUCA, personal communication, 19-20 September 2016). As part of the actions included in the programme, the sector is developing projects on organic biofertilizers and energy co-generation (SAGARPA, 2015). There have been notable improvements with regard to consumption of fossil fuels at mills (as they have moved to using biomass for mill energy) (CNIAA, personal communication, 19-20 September 2016). However, with the exception of the topic of child labour, and (indirectly) programmes to safely dispose of pesticide containers, most of the sustainability initiatives reported by industry players tend to focus on actions around agronomic productivity and environmental protection, rather than on human rights issues<sup>12</sup>.

<sup>12</sup> For example, of the 12 lines of action mentioned by CONADESUCA in a presentation on sustainability at a gathering on the topic in September 2016, they all refer to agronomic or environmental initiatives; none of them made reference to working conditions, workers, health or safety or child labour.

The signing in 2013 of a Declaration of Zero Tolerance for child labour by the main cane growing and cane milling organizations<sup>13</sup>, opened the door to a series of further commitments and actions, including clauses in the national sugarcane laws prohibiting child labour use. The international charity Save the Children, has been working with some mills and groups on holistic intervention programmes on child labour (Save the Children, personal communication, 19-20 September 2016).

Several mills have participated in the Mexican Government’s National Environmental Audit Programme (known as the Clean Industry certification programme). However, only 6 of the country’s 52 mills have an up-to-date certificate (México. Gobierno de la República, 2016).

Some progress has been noted toward a more holistic vision of sustainability, which includes labour issues. For example, several Mexican sugarcane production companies (generally owning multiple mills) have made commitments to working toward a responsible production certificate, such as that offered by Bonsucro; a global independent multi-stakeholder organization. The global NGO Solidaridad has launched a Latin America-wide platform called PanAmericaña encouraging mills and stakeholders to share experiences around sustainability. Some international buyers have initiated programmes of social and environmental auditing and support for training and capacity building (e.g. Nestlé’s Responsible Sourcing Guidelines programme)<sup>14</sup>.

5.3 Overview of the supply chain

In 2015, Mexico was the sixth largest producer of sugar (from sugarcane or beet) and the eighth largest consumer in the world (México. Gobierno de la República, 2016).

Seven sugarcane regions are recognized in Mexico: the Central, Cordoba-Gulf, Northeast, Northwest, Pacific, Papaloapan-Gulf, and Southeast regions (México. Gobierno de la República, 2016). The state of Veracruz and Jalisco contribute the largest proportion of the country’s production of sugarcane: 39% and 12%, respectively (México. Gobierno de la República, 2016).

Table 5. Distribution and total production of sugarcane at the closure of the 2015 harvesting

No.	State	Number of mills	Area harvested (ha)	Raw cane milled (MT)	Sugar production (tonnes)
1	Veracruz	18	325,724	20,442,128	2,220,429
2	Jalisco	6	75,494	7,458,327	876,088
3	San Luís Potosí	4	88,063	5,147,725	560,375
4	Chiapas	2	30,989	2,715,033	319,759
5	Nayarit	2	27,113	2,641,989	312,850
6	Oaxaca	3	53,025	2,792,621	308,706
7	Colima	1	18,768	1,410,825	161,227
8	Morelos	2	16,674	1,736,760	238,197
9	Puebla	2	15,987	1,771,857	223,569
10	Tamaulipas	2	30,437	1,871,886	172,115

<sup>13</sup> It was signed by the Union of Sugarcane Industry Workers (Sindicato de Trabajadores de la Industria Azucarera y Similares de la República Mexicana), the National Union of Sugarcane Producers (la Unión Nacional de Productores de Caña de Azúcar CNC), the National Union of Cane Growers (La Unión Nacional de Cañeros CNPR) and the National Chamber of the Sugar and Alcohol Industries (Camera Nacional de la Industria Azucarera y Alcohlera CNIAA).

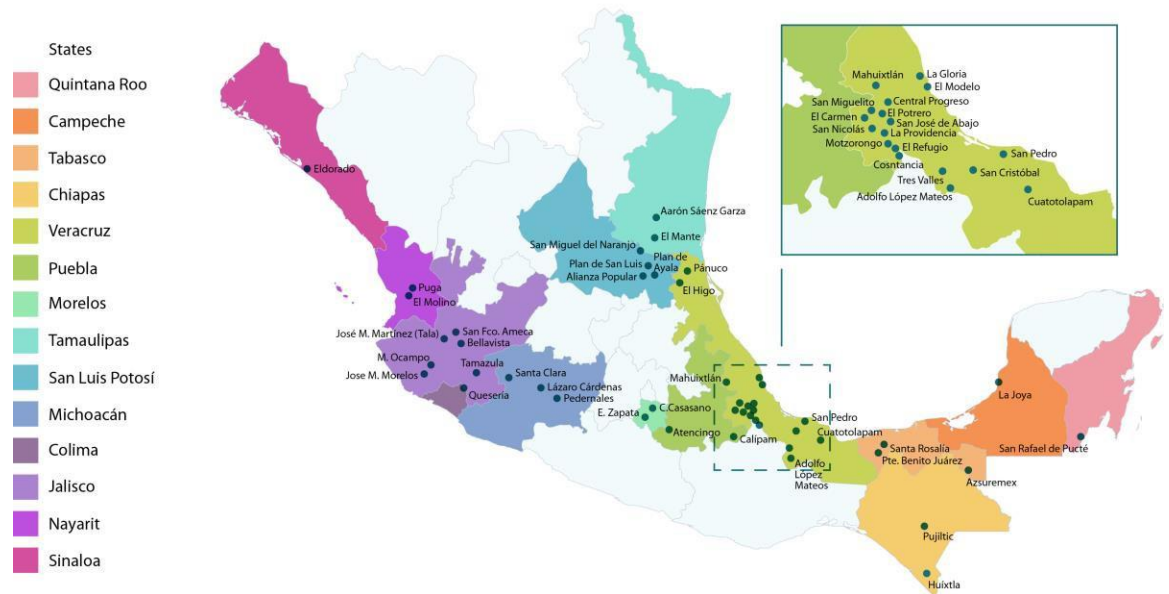
<sup>14</sup> <http://www.nestle.com/csv/communities/responsible-sourcing/sugar>

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11	Tabasco	3	38,603	1,711,466	168,387
12	Michoacán	3	15,155	1,385,367	162,034
13	Quintana Roo	1	29,358	1,455,014	146,224
14	Campeche	1	14,655	760,244	86,682
15	Sinaloa	1	3,472	298,583	28,320
	<b>Countrywide Total</b>	<b>51</b>	<b>783,517</b>	<b>53,599,825</b>	<b>5,984,962</b>

Source: Sistema Infocaña

Figure 7. Sugarcane mill distribution by state



Source: (CONADESUCA, 2016)

Most of Mexico’s production comes from smallholders, either members of *ejidos*, farming communities, or independent farmers. Mexico’s 51 mills are supplied by an estimated total of about 190,000 producers (SAGARPA, 2015). In other words, a typical mill obtains its raw material from some 3,600 suppliers on average, which has serious implications for the adoption of new social or environmental practices.

Some of the mills also have their own sugarcane plantations. However, this typically accounts for less than 30% of the total area of supply, and is sometimes just a small area used for agronomic experiments.

Cane farmers usually have a contract with a particular mill that provides them with credit, sugarcane seed, and technical and agronomic advice to ensure optimum plant growth. The mills commonly schedule and coordinate the pre-harvest burning and cutting of the cane so as to ensure a continuous supply for the mill during the harvest season. However, hiring manual labour for planting, weeding, agrochemical application, and cutting is often the responsibility of cane growers. This imposes significant challenges for the implementation of better health and safety practices and general employment conditions. In addition, sugarcane is not harvested throughout the year in Mexico: there is only one harvest period (approximately November–July), which means that there are strong seasonal peaks in employment demand, both in the mill and in the fields.



Migrant cane cutter cutting burnt cane

Photo: Proforest

The predominance of small plots and difficult terrain (sometimes rocky, sloping or with difficult access) mean that most of the cane cutting is done manually by crews of workers using *machetes*. Where cutting is manual sugarcane fields are generally burned in the afternoon or early morning before cutting. Although the use of mechanized cutting (without burning) has increased, this is still a minority practice, occurring on the larger and flatter plantation areas.

5.4 Relevant actors in the sector

The main actors in the sugarcane supply chain are:

Table 6. Actors in the sugarcane supply

Actor	Role
Sugarcane growers	The sugarcane grower is typically a (small) private landowner or an <i>ejidatario</i> or <i>comunero</i> (a landowner within a collective land holding). The mill sets up the relationship with the grower. All growers must be members of one of the two grower unions (CNC or CNPR) to sell to a sugarcane mill in Mexico. Sugarcane mills in Mexico may also have their own plantations (typically <30% of their supply base)
Cane Grower Association representative (normally of CNC or CNPR)	The representative acts as an intermediary between the mill and the sugarcane growers on some topics.
<i>El Cabo</i> ('the commander, chief')	Head of a group of migrant cane cutters and families. Responsible for finding/hiring them and paying them. The intermediary between the mill and the sugarcane grower.
Cane cutters and day-labourers	Cane cutters are typically either local or migrants from other states in Mexico. The cutters are paid on the basis of the amount of sugarcane they cut and the 'quality' of their cutting. This relates to how low to the ground they cut – because sugars are concentrated lower down – and how much of the top they chop off.  In addition to cutting there is a process of loading the cut stems onto trucks. If resources allow, this will be done by a mechanical grab, but if not, labourers will carry this onto the trucks on their backs.  During other times of the year, labourers are employed for land preparation, planting, weeding etc.

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Families of cane cutters	Migrant cane cutters will usually bring their families with them. The cutters and their families are housed in ' <i>albergues</i> ' (shelters/lodges) which are provided by the sugarcane growers, and/or the sugarcane grower associations, and/or the mills.
Transport workers	Sugarcane is transported to the mill in lorries. Other transport workers include the owners and drivers of vehicles that take the cutters to the fields, cranes that lift the sugarcane into the lorries, tractors that help push the lorries out, and mechanized cane harvesters.

Source: Proforest confidential report for a client: Assessment of sugar mills in México (July 2012)

Annex 4 and Annex 6 list some of the actors currently active in the Mexican sugarcane sector.

CONADESUCA reports that the sector employs 36,819 mill workers, 189,945 cane producers/growers, 154,214 labourers, 80,080 cane cutters, and 22,389 transport workers (México. Gobierno de la República, 2016).

There are two main organizations that represent and defend the interests of cane growers. These are the National Confederation of Smallholders (CNPR) and the National Union of Sugarcane growers (CNC). In some states, other smaller associations have formed. Cane growers, whether *ejidatarios* or private smallholders, must be members of an association to supply to a mill. Both associations generate income by requiring members to pay fees as a percentage of their earnings from sugarcane: 1% for CNPR and 1.5% for CNC. In theory, these organizations could be important actors to influence sustainability practices with their grower members and the mills. However, cane mills and buyers report that these organizations are difficult to engage with, and there are reports of corruption and mismanagement. The 52 mills in Mexico are owned by the 16 commercial groups shown in Table 7:

Table 7. Corporate groups involved in the sugar sector

	Group	Mills <sup>15</sup>
1	Beta San Miguel (BSM) 11 mills	Central Casasano (Mor), Central El Potrero (Ver), Central La Providencia (Ver), Central San Miguelito (Ver), Constanca (Ver), Emiliano Zapata (Mor), Quesería (Col), San Francisco Ameca (Jal), San Miguel del Naranjo (SLP), San Rafael Pucté (QR), Santa Rosalía (Tab)
2	Grupo Azucarero de México (GAM) 4 mills	El Dorado (Sin), Lázaro Cárdenas (Mich), Presidente Benito Juárez (Tab), Tala (Jal)
3	Grupo Sáenz 3 mills	Aarón Sáenz Garza (Tam), El Mante (Tam), Tamazula (Jal)

<sup>15</sup> Due to the trading of mills that has taken place over the last two years, it is likely that some of these mills no longer belong to the original corporate group as listed hereby. Infocaña did not have information updated as of November 2016.

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4	Machado 5 mills	Central El Progreso (Ver), El Refugio (Oax), J. M. Morelos (Jal), Motzorongo (Ver), Pablo Machado (Oax)
5	PIASA 3 mills	Adolfo López Mateos (Oax), Tres Valles (Ver), Plan de San Luis (SLP),
6	Porres 4 mills	El Modelo (Ver), Huixtla(Chis), San Pedro (Ver), Santa Clara (Mich),
7	Santos 5 mills	Alianza Popular (SLP), Bellavista (Jal), Cuatotolapan (Ver), Pedernales (Mich), Plan de Ayala (SLP)
8	Zucarmex 6 mills	Atencingo (Pue), El Higo (Ver), Mahuixtlán(Ver), Melchor Ocampo (Jal), Pujilic(Chis), San Cristóbal (Ver)
9	Consortio AGA	Puga (Nay)
10	Menchaca	El Molino (Nay)
11	García González	El Carmen (Ver), Calipan (Ver)
12	Fanjul/Asr Group	San Nicolás (Ver),
13	Perno	San José de Abajo (Ver),
14	Grupo Azucarero del Trópico (GAT)	La Joya (Cam), La Gloria (Ver)
15	Pantaleón	Pánuco (Zapoapita) (Ver)
16	Jiménez Saíñz	Azuremex (Tab)

Source: Developed by the authors with information from Sistema Infocaña

### 5.5 Overview of land tenure and human rights in the sugarcane sector in Mexico

Based on interviews, a review of published information and Proforest's own experience, we have identified the following themes where there is a risk of human rights abuses or land tenure problems in the production of sugarcane in Mexico.

#### Landrights, FPIC and land-grabbing

The risk of poor practices in obtaining or using land for sugar cultivation in Mexico was found to be low. The industry developed a model of smallholder production, implemented well before 1992 when communally-held land-holdings could not be sold or rented out. Hence the industry grew up accustomed to working with an independent supply base, in which communal land holders demonstrated the approval of the assembly for the cultivation of sugar. Their current supply base is typically able to demonstrate land ownership with land titles. However, it is important not to disregard the possibility that land conflicts can still exist especially in states such as Chiapas, Michoacán and Oaxaca e.g. over *ejido* boundaries or around land titling within *ejidos* (Madera, 2012).

#### Insecurity

The political situation and insecurity prevailing in sugarcane regions pose important risks to the sector. Self-defence groups as well as criminal gangs are known to take control over the territory in several sugarcane areas such as the states of Tamaulipas, Veracruz, Guerrero, Jalisco or Michoacan. The government has been

accused of using force to intervene but their efforts have not been effective. This insecure environment impedes civil society organizations and other actors from taking firm actions to redress the situation, since it requires engagement in remote and poor areas, which are considered dangerous.

### Labour conditions

Challenges exist in the sector with regard to labour conditions, especially for cane cutters and temporary agricultural workers. Studies in the pacific regions of Central America and Southern Mexico have shown very high levels of a serious health condition called Chronic Kidney Disease of Non-Traditional Causes (CKDnT), which particularly affects working-age men in the agricultural sector including populations engaged in sugarcane harvesting (SALTRA /IRET-UNA, 2013; Beaubien, 2014)(Brooks and Ramirez, 2013 in (Cohen, 2012). The causes of this kidney disease are the subject of research and debate but seem to include arduous work while exposed to high temperatures, acute and chronic dehydration, and exposure to environmental toxins (La Isla Foundation, 2015).

The sector also faces challenges regarding adequate provision in the field of drinking water, shade, restrooms, etc., as well as risks posed by the lack of personal protective equipment. Field work by the authors and interviewees also indicates that inadequate storage, handling and disposal of agrochemicals (pesticides) can be another source of risk to the health of sugarcane workers and their families.

Use of brigades of seasonal migrant workers by the smallholder cane growers in some regions is also associated with the use of intermediary 'labour brokers'. There are reports of workers having little understanding of their pay and conditions – many are piece workers. In cases where workers migrate into the region to work on the harvest, poor sanitary conditions and cases of overcrowding of workers and their families have been identified (Mertens, 2008; authors' own observations). A joint study by the ILO and various research centres specialized in sugarcane in Mexico highlighted that there was little or no training on the prevention of occupational accidents and diseases both at the plantations and in sugar mills (Mertens, 2008)

Furthermore, while the cane growers (generally smallholders) are represented by several highly-organized unions, the *cane laborers* and *cane cutters* – composed of local day labourers, and groups of seasonal migrant workers- tend to lack any form of representation, and are the most vulnerable in the system.

### Living Conditions

In those sugarcane growing regions where seasonal migrant labour is used for the harvest, accommodation is provided to the workers, and to their families who may accompany them. The cane growers generally provide such accommodation themselves (less commonly the mills); this may be arranged and coordinated by the cane growing unions (CNPR, CNC). Frequently these take the form of hostels ('albergues'), but sometimes they may be houses or communal buildings in the villages of the cutters. Conditions vary greatly: but there are frequently problems with overcrowding, inadequate provision of sanitation, washing facilities and drinking water. Challenges also exist around the provision of adequate spaces for family living and/or safety of women and children; and the provision of education services and health services to the migrants and their families.

### Child labour and access to education

The Mexican sugar sector also faces issues with regard to child labour. According to the Child Labour Module of the National Institute of Statistics and Geography (INEGI, for its acronym in Spanish), in 2011 some 3,035,455 girls, boys and adolescents were



participating in the agricultural sector. Sugarcane cultivation and harvest is known to be an activity where children and adolescents can be found. Their participation interferes with the children's school education and exposes them to chemical, physical, biological, ergonomic, mechanical and psychosocial risks (OIT, 2014). Such a complex scenario has motivated the mobilization of different government bodies, NGOs and international organizations to take action to improve the situation (OIT, 2014).

Since 2010, the National Chamber of the Sugar and Alcohol Industry (CNIAA, for its acronym in Spanish) has been making efforts to contribute to the prevention and eradication of child labour through its statement on "Zero tolerance to child labour in the value chain of sugarcane agribusiness in Mexico" (OIT, 2016). At the same time, influenced by a desire to demonstrate sustainable practices and achieve certification, some sugarcane consortia and mills are implementing programmes for the eradication of child labour from their supply chains.

Similarly, the seasonal work dynamics of sugarcane plantations have become attractive for migrant workers from Central American countries (Guatemala, Honduras, Belize, El Salvador), particularly in the states of Chiapas, Campeche and Quintana Roo. Despite their increasing integration into the social and labour dynamics of Mexico, migrant workers continue to be subject to violations and abuses. They are often unaware of, or unable to exercise, their rights and they are likely to have difficulty in gaining access to health, education and social security services (García, 2013). Similar challenges are experienced by Mexican migrants, who travel to other regions to work as cane cutters. Despite having a legal right to work they are likely to be vulnerable to poor practices due to lower levels of Spanish, lower levels of literacy, and discrimination based on ethnicity or language.

### Human rights for local communities

Sugarcane cultivation has environmental impacts related to air pollution from the pre-harvest burning of the cane fields and the burning of bagasse in sugar mills. The release of huge amounts of carbon monoxide during the field burns can negatively affect the health of populations located near the plantations (Morales J. , 2011). Similarly soot emissions can pose a health risk. In addition, sugarcane mills use large quantities of water for washing boilers and machinery, reducing that available for local communities, and increasing the risk of environmental pollution (see below).

### Environment

The sugarcane agroindustry can negatively impact the environment. Sugarcane cultivation, especially during the harvest season, is the principal threat to forests in sugarcane production regions (G. Chapela, personal communication, May 5, 2017). Due to low levels of mechanical harvesting, burning sugarcane is common practice which increases the risk of forest fires.

Wastewater from mill operations represents a risk of water pollution; studies have shown that sugarcane mills are the principal cause of elevated BOD (Biochemical Oxygen Demand) levels in Mexico (G. Chapela, personal communication, May 5, 2017). In addition, the use of agrochemicals is another cause of the pollution of water sources.

### Transparency and due diligence

As is the case for the Mexican agricultural sector in general, sugarcane processing plants have no tradition of considering the social and environmental impacts of their supply base as part of their responsibility. Therefore, the relationship between the mill and its suppliers typically centres around a contract for sugarcane cultivation

and management, and the price of sugar. Most of the contact between company staff and farmers is through agronomists who provide technical advice and supervise planting, management and harvest. However, while the focus of this relationship has been on conditions for optimum production and harvesting, such contractual and advisory relationships also provide an opportunity for the mills to engage with their cane growers on environmental and social sustainability issues.

In practice, sugarcane mills have only recently been asked to look at the sustainability issues of small producers in their supply base, and are generally not yet equipped to systematically identify, and much less mitigate, any problems found. Even where the problems are known to be longstanding and are illegal (e.g. child labour), mills have generally considered themselves to have very little power to make direct changes, since other actors (sugarcane associations, cane growers, local authorities and cane cutters themselves) are considered to be more directly involved.

With regard to mechanisms to allow dialogue between communities, sugarcane farmers and mills to address the social and environmental impacts of production processes, there is a tendency to focus mainly or exclusively on those communities located in the immediate vicinity of the mills, but much less so on those located near production areas. There is also a tendency to emphasize Corporate Social Responsibility projects, rather than identifying and mitigating the potential impacts of production processes. It is usual for grievance mechanisms to focus on the mills' employees rather than a wider group of stakeholders.

### 5.6 Sugarcane in Michoacán State

Sugar production has a long history in the State of Michoacán: there are three mills which, from 2001 to 2016, had an annual average harvest of 144,700 tons of sugar (SIAP, 2015). Of the 15 Mexican sugar states, Michoacán ranked ninth in terms of its average annual production, especially due to what is generated in the Taretan region. In this region, the crop is the main source of income for the population, followed by fruit and berry cultivation (Fátima, 2013). There are 19 sugar-producing municipalities in the State. As with Chiapas, the land is mainly owned by smallholders, each owning less than 10 ha. This crop generates around 5,000 direct jobs in the State. One observer commented that there is little inter-mill cooperation on sustainability issues within the State, since the three mills in Michoacán are owned by three different sugarcane groups.

Michoacán is known for being Mexico's major avocado fruit producer, which generates 57% of the state's total income, with global exports<sup>16</sup>. It's also one of the most insecure states in Mexico (BBC, 2016). Insecurity has increased in the last decade, mainly due to problems associated with drug trafficking. This state is a hot-spot for drug production and distribution where extortions and kidnappings are frequent. The incidence of assaults on public transport or private vehicles, kidnappings and road blockages have led the US and Canadian authorities to advise against all but essential travel to Michoacán outside of two cities.

Three years ago, self-defence groups of armed civilians emerged in an attempt to confront drug cartels. These groups were trying to win back control of the territory including zones of sugarcane cultivation and local roads. They claimed to have given back crop areas to avocado smallholders that had lost their land to the drug cartels (BBC, 2016).

<sup>16</sup> 4/5 of the national avocado production is grown in Michoacan (Secretaría de Economía, 2016)

From interviews conducted for this research, we learned that the political situation and insecurity prevailing in Michoacán have hampered the delivery of sugarcane to the mills. Armed men have assaulted sugarcane mills' cargo trucks, with important economic losses. We have also learned that self-defence groups may impose the payment of a *derecho de piso* fee, a form of extortion used for financing their operation by forcing producers and transporters to pay a fee in exchange for their security and to allow their economic activity (Olmos, 2016). In these regions, the government has been accused of using force without delivering results. "In the absence of a counterbalance entity that deters criminal behaviour, in their efforts to combat organized crime the army may violate human rights in communities by burning crops, damaging property, among others" (Rodríguez, 2009).

Insecurity in the state of Michoacán means that access to the plantation areas and mill sites by visitors is often considered to be too risky. These risks reduce the possibility of providing expertise and support whether by civil society, national/local government or consultants, and it is said to have already hindered visits by auditors for BONSUCRO assessments. It will also severely hinder the identification of any practices negatively affecting human rights since, by definition, these are most likely to occur in the more remote and poorer areas, where access is likely to be considered more dangerous.

## 6 Conclusions and recommendations

The research carried out for Phase 1 of this work has highlighted the main areas of risk to human rights and land rights concerns in the supply of palm oil and sugarcane in Mexico. These can be summarized as:

**Labour practices:** Serious and widespread concerns with regard to the human rights of workers involved at the field level in the production of both commodities. There are risks both in smallholder production, and in directly managed plantations belonging to agribusiness. There are particularly high risks concerning:

- Risks of non-compliance of workers' rights with regard to pay and conditions: especially in the case of vulnerable migrant labour, including internal Mexican migrants and - particularly in the frontier states of Chiapas, Campeche and Tabasco - migrants from Central America (generally undocumented).
- Risks to health and life presented by extreme working conditions (e.g. from extreme physical work in high temperatures with poor hydration), inadequate supply or use of protective equipment, poor and dangerous use of equipment and inadequate storage, and handling and application of agrochemicals.
- Risks to health that may be presented by potentially inadequate housing conditions of workers, including problems of overcrowding, sanitation and personal safety.
- Risks to children: including child labour undertaking hazardous activities, as families of migrant labour, and/or exposure to hazardous practices.
- Risk of discrimination and non-compliance with rights of indigenous peoples and other marginalized groups (illiterate, poorer sectors) engaged as employees especially, but not exclusively, as migrant labourers.

**Land rights:** The study suggests that large-scale land-grabbing by agribusiness is not considered as problematic as it is in other parts of the world (including neighbouring Guatemala). Nonetheless with regard to oil palm production the increase in demand for palm oil combined with the current incentives for expansion and in the context of a shift from communal to private ownership is thought to be resulting in:

- Increase of control of productive landscape by agribusiness (via rental of land and/or provision of seed, control of planting, etc.); and to a lesser extent in ownership of land by agribusiness (away from communal and individual landholdings)
- Increase in cultivation of commercial crops at the expense of subsistence or locally – consumed produce, raising questions by some about long-term local food security
- A potential for increase in land conflict sparked by the gradual purchase of individual small plots without approval of a communal authority, possibly facilitated by intermediaries.

There are also a potentially serious, but unsubstantiated, accusation of populations having been evicted from their land for palm oil mill or plantation establishment (World Rainforest Movement, 2009).

No such issues were raised in relation to sugarcane cultivation, which unlike palm oil, suffers from overproduction.

**Impacts on wider community:** Due in large part to widespread impunity and corruption (particularly in the poorer states), and a lack of resources for implementation, many of the laws relating to conservation, ecosystem protection and minimizing pollution are poorly implemented. Hence there is a risk of practices which negatively impact the human rights of neighbouring and downstream

communities in relation to palm and sugarcane cultivation. The rise of drug-related extortion and insecurity have exacerbated the challenges of implementing the legislation.

The most likely impacts on communities are in relation to:

- Health risks from cane burning and mill emissions related to sugarcane processing.
- Risks to water quality and supply caused by poor storage, supply and disposal of agrochemicals, poor management of processing waste and/or overuse of water for irrigation and/or processing.
- Risks to water quality and supply and loss of local biodiversity due to illegal and/or poorly regulated land-use change, especially conversion of forest.
- Risks of forest fires (or crop damage) caused by burning of cane prior to cutting.

**Understanding, management and mitigation of human rights risks:** Our study highlights a low level of experience by processing companies in Mexico of assessing the social (and environmental) risks in their supply base, as opposed to the mill and plantations under direct ownership and management. While there has been interest and progress toward meeting international sustainability standards, processing mills have typically seen the activities of their raw material suppliers – often made up of thousands of smallholders – as difficult to influence or beyond their scope of responsibility. Therefore, mills are likely to lack the human resources, experience, and systems to identify, manage and support mitigation of problems – even serious ones – in their supply base. This therefore represents an additional risk and challenge to brands, traders and retailers seeking to address these issues in their supply chains. Even if human rights (and environmental) threats are identified, their suppliers are unlikely to be able to react with agility and experience to address them. Nevertheless, some upstream companies have started to engage with their supply base and have been supporting capacity building and risk assessments to reduce risks.

Furthermore, several of the problems identified are systemic and widespread throughout the palm oil and sugar industries in Mexico. To address them is likely to require the participation of multiple actors, including national, state and municipal governments, civil society, unions and producer associations.

### Recommendations

We understand that PepsiCo is planning a second phase of work to follow on from this report. We recommend that in the next phase of work, PepsiCo consider the following approaches:

1. **Traceability.** Supply chain mapping including an understanding of the supply base characteristics for each mill.
2. **Engagement and due diligence.** Engagement with Mexican suppliers, including those supplying bottlers and joint ventures, on the priority social and environmental risks in their specific supply bases. Comprising:
  - a. Dialogue with suppliers about their commitment to, and progress toward eliminating all negative social and environmental impacts in their own operations and in those of their supply base. This should include an understanding of the actors involved in the supply base, and type of relationship between them (e.g. Intermediaries, direct suppliers, associations).

- b. Field verification of the performance against sustainability criteria or on priority issues in the supply base of selected mills, including field observation, interviews with workers and local communities and consultation with local, regional and national stakeholders. Mills should be prioritized in line with the major risks identified in this report including, but not limited to e.g. risk of expansion onto new land, operating in a region of high risk of use of migrant labour.

Sustainability criteria should include:

- Adequate mechanisms for due diligence on human rights risks in their supply base by the mills themselves.
- (for palm) Ensuring that mills and growers in their supply base have followed international good practice in acquiring the consent of the communities where palm oil is being planted.

### 3. Implementing action

- a. Develop – with suppliers – action plans to address the priority issues and gaps. This should include both supplier-led actions, and engagement with key local, national and international organizations and existing initiatives able to help address the sector-wide challenges.
- b. Identify and support capacity building needs to address the priority gaps and challenges.

### 4. Further research

Based on this preliminary desk study we recommend 3 areas in which a deeper level of research would be recommended, in order to better identify the extent of the problem, root causes and intervention strategies:

- a. There is a need to better understand the trends in land acquisition or rental for oil palm expansion in the supply regions, and hence the risks of potential land-grabbing or land conflict; and risks of deforestation. Such research could identify any high-risk regions and generate recommendations for safeguards. Such research should include further investigation of the alleged land rights violation in Chiapas reported by the World Rainforest Movement.
- b. Further research is needed to identify, understand and reduce incidences of Chronic Kidney Disease of Non-Traditional Causes (CKDnT) in sugarcane workers; PepsiCo and other buyers could support ongoing efforts, and suppliers could contribute to the identification and trialling of programmes to mitigate the risks for workers.
- c. Greater understanding of the threats to the human rights of migrant workers and their families – especially children – is considered important.

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## 8 Annexes

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### Annex 1. List of interviewees

1. Conrado Marquez, Universidad de Chapingo
  2. Daniel Sumalavia, Rights and Resource Initiative
  3. Duperly González, Grupo Oleopalma
  4. Elsa Esquivel, Scolet-te
  5. Esteban Figueroa, ABC México
  6. Gabriel Bedoya, Grupo Oleopalma
  7. Gonzalo Chapela, Universidad Autónoma Chapingo – Mexico
  8. Guillermo Galindo, Oxfam-Mexico
  9. Gustavo Sanchez, Red Mocaf
  10. Jose Guadalupe Pérez, ABC Mexico
  11. José Luis Pérez, Femexpalma
  12. Mario René Hernández, GAM
  13. Miguel Hernández, Bonsucro
  14. Raúl Benet, Consejo para la Silvicultura Sostenible
  15. Ricardo Hernández, Secretaría del Medio Ambiente de Chiapas
  16. Sergio Graf, independent consultant
  17. Erin Logan, Proforest
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### Annex 2. Forms of agricultural use

**Real property land:** The owner holds, either with or without a written title, ownership rights and has peacefully and uninterruptedly exploited the land for at least thirty years without paying rent. Ownership rights include the land usufruct but exclude land leased to third parties such as communal lands granted by “luck” or lease.

**Leased land:** The owner enjoys the usufruct of the land through the payment of a fee or rent in cash, in kind or both and which is independent of the results of the exploitation.

**Land under sharecropping:** Land owned by a third party that is temporarily leased to the sharecropper—who is considered the owner for census purposes—through the payment of a percentage of the product obtained or its equivalent in cash. The magnitude of such percentage depends on the local conditions, the type of ownership and the owner’s contribution.

**Land under other tenure regimes:** Land not included in any of the other regimes: Use of the land granted free of charge, land held in escrow, under litigation, in precariousness, in censuses, in fora, granted in “luck” in a communal regime given in “luck”, and others (Romero 2009b in Morales, 2009: 191).

## Land tenure and human rights: palm oil and sugarcane production in Mexico

### Annex 3. Palm oil mills in Mexico

Palm oil mills in Mexico are located in the four states with the longest history of oil palm cultivation. This is a first exercise by the authors based on information and data obtained from secondary sources and interviews. *(Note: This list may include mills that were in the planning stage, but it is unknown whether they have been completed, mills that are no longer operating, and other mills currently in operation may also be missing from this list).*

Table 10. Palm oil mills in southeastern Mexico

	Mill	Municipality	State	Capacity (MT FFB/h)*	Sector	Company name	Start-up year
1	Oleofinos del Carmen	Carmen	Campeche	10	Social / Private	Oleofinos del Carmen S.A. de C.V. <sup>17</sup>	2014 ≈
2	<i>(under construction)</i>	No info	Campeche	No info	Private	Grupo Molina	2017*
3	Jorge Mena Pérez <i>(under construction)</i>	Carmen	Campeche	15	Social	Unión de Palmicultores de Milenio (UPM) U.S.P.R. de R.I. <sup>18</sup>	2016*
4	El Desengaño (aka La Lima) <sup>19</sup>	Villa Comaltitlán	Chiapas	9	Private/ Social	Pakal Consultores en Agronegocios del Suereste S.A. de C.V.	1994
5	Bepasa	Acapetahua	Chiapas	6	Social	Aceitera chiapaneca la Palma S.P.R. de R.L. <sup>20</sup> (Bepasa)	1995

<sup>17</sup> Sociedad Anónima de Capital Variable (S.A. de C.V.)

<sup>18</sup> Unión de Sociedad de Producción Rural de Responsabilidad Ilimitada (U.S.P.R. de R.I.)

<sup>19</sup> Salas Patiño, 2011

<sup>20</sup> Sociedad de Producción Rural de Responsabilidad Limitada (S.P.R. de R.L.)

## Land tenure and human rights: palm oil and sugarcane production in Mexico

6	Propalma/Oleosur	Acapetahua	Chiapas	30	Private	Promotora de Palma del Soconusco, S.A. de C.V. (Propalma)	2002
7	Zitihualt	Villa Comaltitlán	Chiapas	6 ≈	Social	Procesadora de Aceites de Palma, S.A. de C.V. S.P.R. de R.L	2012
8	La Primavera	Acapetahua	Chiapas	15	Social	Cooperativa Union de Palmicultores de la Costa de Chiapas S.C. de R.L. de C.V. <sup>21</sup>	2015
9	Palmasur or Palma Tica	Palenque	Chiapas	35	Private	Palmeras Oleaginosas del Sur, S.A. de C.V. (antes Palma Tica de México), Grupo Numar	2004
10	Uumbal ( <i>under construction</i> )	Palenque	Chiapas	45 ≈	Private	Agroforestal Uumbal Chiapas S.A.P.I de C.V. <sup>22</sup>	2017*
11	Palmas de Comillas ( <i>under construction</i> )	Marqués de Comillas	Chiapas	45	Private	Palmas de Comillas S.A. de C.V. (Fondo Chiapas), Agrotropic	2016
12	Oleopalma-Palenque	Palenque	Chiapas	30	Private	Agroindustria de Palenque S.A. de C.V (AGROIPSA), Grupo Oleopalma	2004
13	Oleopalma-Mapastepec	Mapastepec	Chiapas	35	Private	Agroindustria de Mapastepec S.A. de C.V (AGROIMSA), Grupo Oleopalma	2001
14	Oleopalma-Marqués de Comillas ( <i>under construction</i> )	Benemérito de las Américas	Chiapas	30	Private	AGROIMSA, Grupo Oleopalma	2016*

<sup>21</sup> Sociedad Civil de Responsabilidad Limitada de Capital Variable

<sup>22</sup> Sociedad Anónima Promotora de Inversiones de Capital Variable (S.A.P.I de C.V.)

<b>16</b>	Oleopalma-Jalapa	Jalapa	Tabasco	30	Private	AGRO Ol
<b>16</b>	Agroindustria de los Ríos ( <i>under construction</i> )	Emiliano Zapata	Tabasco	30	Private	Agroindustria Región de L de C.V. <sup>23</sup>
<b>17</b>	Aceites de Palma	Acayúcan	Veracruz	30	Private	Aceites d

\*MT FFB/h: Metric tonnes of fresh fruit bunches/hour, No info: No information available

• Scheduled

≈ doubtful information

Source: Sistema Producto; SAPARPA, 2015; (Aguila, 2015)

<sup>23</sup> (SAGARPA, undated)

#### Annex 4. Main stakeholders in the palm oil and sugar sectors

1. **Federal government:** SAGARPA (SENASICA<sup>24</sup>, SIAP), SEDATU<sup>25</sup>, SEMARNAT (CONABIO, CONANP, CONAGUA),
2. **State governments:** Secretarías del campo del Gobierno de Campeche, Chiapas, Tabasco y Veracruz
3. **Academia and research centres:** Universidad de Chapingo, Universidad Autónoma de Chiapas (UNACH), INIFAP, ECOSUR<sup>26</sup>, COLPOS<sup>27</sup>, Universidad Veracruzana, Universidad Autónoma de Tabasco, Instituto de Ecología (INECOL)
4. **Civil society organizations:** Pronatura sur, TNC-Mexico, Solidaridad México, Proforest
5. **Companies or suppliers of goods and services:** ABC México, FIRA, FND<sup>28</sup>, FIRCO<sup>29</sup>, INCA Rural, FOMENPALMA<sup>30</sup>, Agroservicios Profesionales del Soconusco.

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#### Annex 5. Stakeholders in the oil palm sector

1. **Civil associations:** Comité Nacional del Sistema Producto – Palma de Aciete, FEMEXPALMA<sup>31</sup>, Consejo Nacional Agropecuario, ANIAME, Consejo Mexicano para el Desarrollo de la Palma de Aceite A.C. (COMEXPALMA)<sup>32</sup>
2. **Private companies:** Grupo Oleopalma, Uumbal (See Annex 3. Palm oil mills in Mexico)
3. **Social enterprises:** Sociedad de Producción Rural (S.P.R). Maya de Palenque, Palmeros del campo, Bosque Bello del Tulijá (See Annex 3. Palm oil mills in Mexico)

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#### Annex 6. Stakeholders in the sugar sector

1. **Civil associations /Workers unions:** Comité Nacional para el Desarrollo Sustentable de la Caña de Azúcar (CONADESUCA), Cámara Nacional de las Industrias Azucarera y Alcohólica (CNIAA), Unión Nacional de Cañeros (UNC), Confederación Nacional de Productores Rurales (CNPR), Confederación Nacional Campesina (CNC)
2. **Private companies or business groups:** See Table 8. Corporate groups involved in the sugar sector)

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<sup>24</sup> Servicio Nacional de Sanidad, Inocuidad y Calidad Agroalimentaria

<sup>25</sup> Secretaría de Desarrollo Agrario, Territorial y Urbano

<sup>26</sup> Colegio de la Frontera Sur

<sup>27</sup> Colegio de Postgraduados

<sup>28</sup> Financiera Nacional de Desarrollo Agropecuario, Rural, Forestal y Pesquero

<sup>29</sup> FIRCO – Fideicomiso de Riesgo Compartido

<sup>30</sup> FOMENPALMA S.A. de C.V. is a private, multipurpose financial society (SOFOM for its acronym in Spanish) with participation of COMEXPALMA and sector entrepreneurs. Its main activity is to support oil palm producers by providing loans for productive projects.

<sup>31</sup> The nascent Federación Mexicana de Aceite de Palma

<sup>32</sup> COMEXPALMA is a civil association created on September 20, 2004 to be the representative entity of the entire oil palm Product System before public and private bodies.





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