



# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



## ARE SUSTAINABLE PATHWAYS POSSIBLE FOR OIL PALM DEVELOPMENT IN LATIN AMERICA?

COLOMBINE LESAGE<sup>1,2,3</sup>, LAURENE FEINTRENIE<sup>3,4,5</sup>

<sup>1</sup>ENSAIA, Nancy, France.

<sup>2</sup>Université de Lorraine, Nancy, France.

<sup>3</sup>CIRAD - Forests and Societies research unit, Montpellier, France.

<sup>4</sup>CATIE, Turrialba, Costa Rica.

<sup>5</sup>ICRAF, Lima, Peru.

colombine.lesage@gmail.com

**Paper prepared for presentation at the  
“2018 WORLD BANK CONFERENCE ON LAND AND POVERTY”  
The World Bank - Washington DC, March 19-23, 2018**

*Copyright 2018 by author(s). All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.*



# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



## **Abstract**

The palm oil sector in Latin America emerged in the 1930s with investments of private industries. After a long period of poor development, the sector has known a new youth in the 1970s with the involvement of the States. Public incentives then favored an agro-industrial business model. Since the 1980s it has been experiencing a promotion of more growers' inclusion in the value chain, local development and sustainability of production. 'Strategic alliances' and 'social sector' models emerged as answers to this demand. They now represent almost 30% of the regional production. The agro-industrial sector is also moving towards a more sustainable production by adopting the RSPO criteria and certification, and by developing 'strategic alliances', with the support of national public policies. Latin America appears on the way to lead sustainability in the palm oil sector. But challenges are numerous and the way is still long and perilous.

## **Key Words:**

Business models, large-scale land investments, industrial plantations, deforestation, agriculture impacts



## Introduction

The world consumption of oils and fats has been steadily increasing for the last thirty years. It grew from 11 kilograms per person per year in 1976 (*Rival and Levang, 2013*) to 28 kilos per person per year in 2016 (*Oil World, 2016*). As a consequence, oilseed cultivation as soybean, rapeseed and more recently oil palm has hugely extended. Since 2010, palm oil has become the main source of vegetable oil worldwide. That year, palm oil accounted for 25% of global vegetable oil consumption (*Rival and Levang, 2013*). In 2016, the global palm oil production amounted to nearly 60 million tons (representing 34% of global vegetable oil production) with an harvested area of about 20 million hectares, making it the oilseed with the highest oil yield (with an average world yield of 3.7 T of oil / ha / year, in comparison with soybean, 0.4 T / ha / year, or rapeseed, 0.7 T / ha / year) (*Oil World, 2016*).

Since 2000, oil palm cultivation has hugely extended in Southeast Asia, its main production basin. Indonesia and Malaysia, the two main producers, gather almost 89% of the world production (*Oil World, 2016*). Latin America and Africa, with respectively 6% and 4% of production, look as small players (*Oil World, 2016*).

Following its rapid expansion in Asia, oil palm cultivation has raised many environmental (high deforestation, biodiversity loss, pollutions...), and social (indigenous land grabbing, unfair partnerships between industries and smallholders...) issues and debates. In response to the growing tensions regarding oil palm expansion in Southeast Asia, the Indonesian and Malaysian governments edited restrictions on plantation possibilities, such as the 2011 Indonesian Moratorium on land available to new oil palm plantations (*Murdiyarso et al., 2011*). On their sides, some of the main palm oil groups engaged with NGOs to create the Roundtable on Sustainable Palm Oil (RSPO) which was officially created in 2004 (*RSPO, 2017*). However, palm oil groups also followed another strategy: looking for alternative locations to expand their plantations, in Africa or Latin America.

This situation offers a market opportunity for Latin America, which gathers one of the widest suitable area for oil palm, with more than 560 Mha only in Brazil, Colombia and Peru (*Pirker et al., 2015*). Since 2001, the palm oil sector in Latin America has known a 7% annual growth and has reached a cultivated area of almost 1.2 Mha in 2016. The same year, the annual production was estimated to 3.7 MT of crude palm oil (*USDA, 2017*), equivalent to 6% of the world production.



# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



Learning from the experience of oil palm development in Southeast Asia, and taking into consideration the specificities of Latin America, are sustainable pathways for oil palm development possible in Latin America?

As first steps to answer this question, we conducted in 2017 a preliminary study based on a systematic literature review on oil palm history and development in Latin America<sup>1</sup>, and a case study in Costa-Rica.

## **Advent of oil palm plantations: a banana company at the forefront**

The beginning of oil palm cultivation in Latin America is linked to the history of the United Fruit Company (UFCO) a North American company specialized in the production and export of bananas. During the twentieth century the company spread over most of the Meso American and Caribbean countries (Costa Rica, Panama, Colombia, Jamaica, Guatemala, Honduras, Cuba, Nicaragua, Santo Domingo), absorbing its competitors, influencing the governments and international trade until it became in 1930 the largest employer in Central America. At that time, its capital reached 215 million dollars (*Les Echos, 2009*).

Besides the banana cultivation, the UFCO launched an experimental station in Honduras (The Botanical Garden Lancetilla and *Estación Experimental Lancetilla*) to study tropical crops potentials. During the years it accumulated seeds of nearly a thousand varieties of tropical plants (mainly fruit plants). Among them, the botanical garden received oil palm seeds from Indonesia and Malaysia. This is how, between 1936 and 1938, UFCO established the first oil palm plantation in Central America in San Alejo, Honduras. In 1937, seeds were sent to Guatemala and planted in Tiquisate (*Washburn, 1987*).

The thirties also marked a difficult period for the UFCO as two diseases affecting banana trees (the Panama disease and the Sigatoka) spread on the company's banana plantations. The banana trees were over-treated with copper sulphate, causing a soil pollution harmful to them. The company sought to set up an alternative crop, tolerant to a high concentration of copper sulphate in the soil. Oil palm was elected thanks to its tolerance to sulphate and the successful first experiments in Guatemala and Honduras.

---

<sup>1</sup> In 2017, the United State Department of Agriculture recorded 15 palm oil producing countries in Latin America : Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname and Venezuela. We explored literature regarding all of them, and looked in more details the main producers.



The UFCO then encouraged the expansion of oil palm cultivation in its other divisions, in replacement of the previous banana plantations. Consequently, oil palm plantations were developed in Costa Rica (1943), Colombia (1945) (*Washburn, 1987*), Nicaragua (between 1945 and 1950) (*IICA, 2006*) and Ecuador (1952) (*Carrion and al., 1985*).

However, the company abandoned most of these experimental plantations in the 1960's to focus on banana cultivation. Only the costarician oil palm plantations were maintained, at the expense of UFCO's banana subsidiary (*La Compania Bananera de Costa Rica*), which was almost completely converted into oil palm plantations (*May et al., 1958*).

### **Rise of oil palm plantations: an increasing implication of the States.**

During the same period, Brazil and Mexico governments saw in oil palm plantation an opportunity to reach oil sufficiency.

In Mexico, the government of Chiapas began to encourage oil palm cultivation in the 1950s. However, due to the farmers' reluctance to convert livestock into plantations, oil palm plantations were restricted to the region of Soconusco. The expansion will not rebound earlier than in the 1990s, following the sharp increase in domestic demand for oils and fat (*Mata García, 2014*).

In Brazil, the first oil palm seeds were planted in 1942 by the Ministry of Agriculture in the state of Pará. In the 1950s, the *Instituto Agrônômico do Norte*<sup>2</sup> received oil palm seeds, initiated research on the subject, and began distributing seeds and plants across the country. This initiative was reinforced in 1964 with the establishment of the '*Planejamento para a Implantação da Cultura do Dendzeiro no Pará*', a program in favor of oil palm plantation. Following this plan, the *Secretaria de Agricultura do Estado do Pará* (SAGRI), built a plant associated with 1,000 hectares of oil palm, and launched the plantation of 2,000 hectares oil palm smallholdings. In 1968 the Secretaria allowed the plantation of 3,000 hectares in Mosqueiro (1,500 ha belonging to Denpasa<sup>3</sup>, 1,500 ha belonging to smallholders) (*Homma, 2016*).

---

<sup>2</sup> Institute of public agronomic research founded by the State (decreto-lei nº 1.245, 1939), it depends on the Centro Nacional de Ensino e Pesquisas Agronômicas

<sup>3</sup> Denpasa is a private company owned by the family group OMB Group, whose investors include the Dutch company HVA International, the Dutch Development Bank (FMO) and IFC (International Financial Corporation) (*Furumo, 2015*).



# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



These first steps were shortly followed in the 1960's and 1970's by an increasing involvement of the States in other Latin American countries. Public policies were edited in favor of the sector, lands were distributed to farmers willing to start oil palm plantations and national plans were set up to promote and support palm oil production.

In Colombia and Ecuador, producers started to organize themselves and created national associations (respectively FEDEPALMA<sup>4</sup>, in 1962 and ANCUPA<sup>5</sup>, in 1970) to promote palm oil production, represent the growers' interests nationally and internationally and organize the dialog within the sector. With the creation of these organizations, the oil palm growers have gained more weight in negotiations with the governments and have mobilized them in favor of its development.

In 1967, FEDEPALMA launched a thirty-year strategic plan for the sector's development called "*La palma africana en Colombia. El programa para su desarrollo, 1967-1992*". It completed the "*Plan of Fomento de la Palma Africana de Aceite*" (decree 290) which was launched by the government in 1957. This plan defined enabling public policies: fiscally (financial incentives), commercially (introduction of customs duties) and economically (preferential credits), and aimed to promote national palm oil production (*EmpresasyEconomia.com, 2012*). This plan, completed later by the *Fondo Financiero Agrario* (launched in 1966 by the government), was one of the main drivers of oil palm production growth in Colombia and led to the funding of more than 20,000 hectares in the 1970s and another 66,000 hectares in the 1980s. As a result, the Colombian government was the first to join the governments of Brazil and Mexico in oil palm promotion. Others followed in the 1970's:

In Honduras, the government (through the *Instituto Nacional Agrario* (INA), the *Banco Nacional de Fomento* and the *Ministerio de Recursos Naturales y Otras Dependencia*) set up the "*Programa de colonización y asentamiento campesino en el Valle del Bajo Aguan*". This program aimed to distribute 40,700 ha abandoned by UFCO to 3,000 families of producers, under the Honduran community scheme. The project planned the plantation of 6,600 hectares of oil palm. In 1976, INA launched the "*Proyecto de Palma Africana*" to provide technical, administrative and financial assistance to growers (*IDB, IICA, and Consuplan, 1971*).

---

<sup>4</sup> Federación Nacional de Cultivadores de Palma de Aceite

<sup>5</sup> Asociación Nacional De Cultivadores de Palma Africana





# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



In Costa Rica, important peasant movements took place in 1972 and former employees of the banana plantations invaded the lands of UFCO to obtain land-tenure rights. Shortly after, the State started a compulsory purchase order on land, included UFCO's land, through the "*Instituto de Tierras y Colonización*" (ITCO). The land was later redistributed to cooperatives that soon after began oil palm cultivation (Clare, 2011).

In Panama, the *Ministerio de Desarrollo Agropecuario* (MIDA) launched in February 1976 a smallholders' settlement model (defined as '*asentamientos campesinos*' in the literature). It is a model of collective ownership where economic and social activities are conducted by the members of the community. Planting and livestock projects were initiated. However, because of their low productivity, the government intervened by proposing the establishment of three new crops: banana, cocoa and oil palm. 2,216 hectares of oil palm were planted in the province of Chiquiri, shared between two cooperatives: COOPEGOTH (1,200 hectares) and Coopemapachi R.L. (Coopemapachi, 2005).

In Nicaragua, many projects in favor of oil palm also emerged at that time. But the government did not interfere until 1988, when the *Ministerio de Desarrollo Agropecuario y Reforma Agraria* (MIDINRA) set up eight oil palm producers cooperatives. Their production was destined to '*La Fabrica factory*', administered by the *Empresa de Desarrollo de Palma Africana y Reforma Agraria* (ENDEPARA) which was itself state-owned (IICA, 2006).

Peru also entered the oil palm sector in the 1970's. The government, through its company "*Empresa para el Desarrollo y Explotacion de la Palma Aceitera Sociedad Anonima*" (EMDEPALMA SA), developed the first oil palm plantations in the department of San Martin (Tocache province) (Deustua Borasino, 2016).

Finally, in Ecuador, the *Instituto Ecuatoriano de Reforma Agraria y Colonización*<sup>6</sup> (IERAC) granted, in 1979, 20,000 hectares to the companies *Palmeras del Ecuador* and *Palmoriente* (10,000 hectares each) to plant oil palm. Half of it was planted after 1985 with oil palm. From this period, the oil palm sector continued on a rapid growth (on average 7% per year), favored by an expanding domestic market and protective policies regarding domestic supply for agricultural products and other raw materials (Carrion et al., 1985). During the 1990s and 2000s planted areas continued to expand mainly through private enterprise initiatives (GRAIN, 2014).

---

<sup>6</sup> The IERAC was created by the *Junta Militar de Gobierno* as part of the *Ley de Tierras Baldias y Colonizacion* (28.09.1964)



**A major role of industries in the rise of palm oil production.**

Thanks to these public incentives, the sector has known in the 1980's and 1990's a major development carried by private groups in Brazil, Colombia, Ecuador, Honduras, Guatemala and Peru.

In Brazil, the public fundings declined during the 1980s and were replaced by private investment. Agropalma<sup>7</sup>, a Brazilian private company founded in 1981, planted 5,000 hectares of oil palm. Many companies and factories were created and started to associate with Agropalma to form a conglomerate specialized in oil palm cultivation and palm oil production. Other Brazilian companies such as Agroindustrial Palmasa S.A., Biopalma, ADM, followed the example over the following decades and began investing in the sector (*Homma, 2016*).

At the same time, the first oil palm plantations appeared in the Dominican Republic, they were privately owned by Grupo Sid and INASCA S.R.L, two domestic companies.

In Guatemala, since the early 1990s private companies have successively started converting their land, previously used for cattle, banana cultivation or other agricultural activities, into oil palm plantations. Between 2000 and 2012, the cultivated area has hugely extended, with an annual growth of 10 000ha. Consequently the planted area was multiplied by 10 and the incomes from oil palm cultivation were multiplied by 20 during this period (*Guereña et al., 2013*). Today, eight Guatemalan families, divided into 40 private companies, own 98% of the national palm oil sector, among them, the principal companies now cultivating oil palm are Grupo HAME<sup>8</sup>, Indesa<sup>9</sup> and the group AGROAMÉRICA<sup>10</sup>. At the end of the 1990s, Honduras has also known a massive expansion of the sector with the beginning of large agro-industrial plantations belonging to private companies as Grupo JAREMAR, Corporación DINANT, ACEYDESA, and PALCASA. The yearly sector's growth was then estimated to more than 7%.

At the beginning of the 2000s, foreign investments have emerged in some Latin American countries. The government of Malaysia has expressed its interest in Venezuela and Peru, but without any materialization of plans so far. Chinese (China Zong Heng Tai) and Indian (Food Fertilizer & Fat (FFF)) groups also

---

<sup>7</sup> Agropalma is a subsidiary of Alfa Group, a conglomerate belonging to the Brazilian billionaire Aloysio de Andrade Faria and which has subsidiaries in several sectors (banking, construction, communication ...) (*Brandao, 2015*)

<sup>8</sup> Grupo Hame, owned by the Molina Espinoza and Molina Botrán families, was then one of Guatemala's leading cotton producers and owned an OLMECA oil extraction plant

<sup>9</sup> A Guatemalan family business, it merged in 2002 with Grasas y Aceites to form the Naturaceites group

<sup>10</sup> Multinational belonging to the Bolaños Valle family, specializing in the production of tropical fruits and vegetable oils





# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



initiated negotiations with the Surinamese government. In Nicaragua, Guatemalan companies have revitalized the sector by investing nearly \$ 120 million. The sector has since grown exponentially<sup>11</sup> (*PRONicaragua, 2017, El 19 Digital, 2017*). In 2007, a new player appeared in the Peruvian palm oil sector when the North American investor Denis Melka<sup>12</sup> took the initiative to buy over 10,000 hectares of farmland to plant oil palm (*Deustua Borasino, 2016*).

Country	% of the planted area cultivated by private companies	% of the national palm oil produced by the private companies
<b>Brazil</b>	75%	90%
<b>Colombia</b>	-	69%
<b>Costa Rica</b>	30%	80%
<b>Ecuador</b>	-	60%
<b>Guatemala</b>	85%	98%
<b>Honduras</b>	27%	29%
<b>Mexico</b>	-	30%
<b>Nicaragua</b>	80%	-
<b>Peru</b>	45%	57%
<b>Dominican Republic</b>	100%	100%
<b>Venezuela</b>	18%	89%

**Table 1 : Importance of the private companies in the national palm oil sectors**

The private companies' capitals are predominantly domestic but there is also a strong presence of regional capital (Colombian, Guatemalan and Costa Rican) in Central America and of North American capital throughout the continent.

Until 2000, the sector was mainly organized under an agro-industrial model: units of large-scale plantations around extraction plants (and sometimes refineries) belonging to the same company. This model is still the most frequent in Latin America and represents almost 70% of the regional production (Table 1). It results from the multiplication of private investments in the sector, with domestic or

<sup>11</sup> This was allowed by the "Ley 344: Ley de Promocion de inversiones extranjeras" guaranteeing foreign capital companies the same commercial rights as domestic companies, in addition to various financial incentives such as the exemption from taxes and VAT for the first ten years of activity (*Vianica, 2013*).

<sup>12</sup> Grupo Melka is a group of 25 companies in the oil palm and cocoa sectors, which also has subsidiaries in Malaysia.



international capital. Its development has been strongly supported and encouraged by governments through land distributions, establishment of national plans or financial incentives.

This model consists in companies with a high level of vertical integration, meaning that these companies both have plantations, an extraction plant, and a refinery. The largest groups are organized into several agro-industrial complexes, each with their own plantations and processing units. They cover the entire production chain. Thanks to their high capital and good access to new technologies, their expansion is rapid and widespread on high-yielding agro-industrial plantations (*Gutierrez-Velez, 2011*).

### **The rise of original business models**

In the 1980's, as governments started to promote social inclusion and territorial development, some private companies initiated partnerships with independent growers and a new business model appeared: the "strategic alliances"<sup>13</sup>. This model is based on relationships and arrangements between mills and growers, and aims at improving the integration of smallholders and the regular supply of large companies. A sales agreement is signed between the growers and the company which owns the extraction plant (mill): the company provides seeds, technical and financial assistance and sometimes carries social programs in exchange of exclusivity on the purchase of fresh fruit bunches. These contracts ensure the growers of an easy sale of their production, the guarantee of a better access to technology (tools, genetic material, etc...), which should lead to better yields. It also motivates them to organize themselves in professional organizations such as cooperatives, to gain economies of scale and power of negotiation. Companies also benefit from the partnership through the insurance of a regular supply without enlarging their plantations (*FEDEPALMA, 2010*).

The main difference between the strategic alliances and the Nucleus Estates and Smallholders (NES) model, very common in Southeast Asia and West-Central Africa (*Feintrenie et al., 2010, Nkongho et al., 2014*), lies in the organization of the producers under contract. In the strategic alliances, growers are gathered under private business associations; they share a binding commitment in the association's contract with the mill, and own their plantation's land (*De la Rosa, 2012*). On the opposite, the NES

---

<sup>13</sup> "Strategic alliances" (or "alianzas estrategicas" in Spanish) is the term mainly used to qualify this model in the literature and for most of the countries. However it was not used in Costa Rica as the growers under contract with the companies (private and social) are called under the term "Productores independientes" (independent producers). The independent producers as defined in the literature are called "productores particulares" (individual producers).



# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



model involves contracts between an enterprise owning an extraction plant (and most often a plantation) and individual growers organized in cooperatives. The industrial plantation belong to the plant and is the center of the cultivated area (Nucleus Estate), the smallholders' plantations surround them. Growers signed individual contracts with the enterprise and the cooperatives managed their plantations following the technical guidance of the enterprise (*Feintrenie et al., 2010*).

In the 2000s, with the launch of the MIDAS program<sup>14</sup> by the United States Agency for International Development (USAID) in Colombia, many new strategic alliances appeared (*USAID, 2016*) increasing the importance of this business-model in the national sector. Today, it is particularly important in Colombia, where it represents 30 % of the cultivated area and 15% of the growers (*FEDEPALMA, 2010*).

	Number of growers involved in strategic alliances	% of the national palm oil production produced by the strategic alliances' model	% of the planted area belonging to the strategic alliances' model
<b>Brazil</b>	900	8	17,3
<b>Colombia</b>	4200	31	30
<b>Costa Rica</b>	around 1500	20	20
<b>Ecuador</b>	-	-	-
<b>Guatemala</b>	200	<2%	11
<b>Mexico</b>	-	-	-
<b>Peru</b>	-	-	-

**Table 2 : Importance of the strategic alliances in the national palm oil sectors**

The model of the strategic alliances was later adopted in other countries as Costa Rica, Guatemala, Honduras, Mexico and Peru, where private companies started to engage themselves with smallholders through sales agreement and offered the same services as observed in Colombia. The importance given to the strategic alliances in the previous countries is summarized in Table 2. In Brazil, this model was duplicated in 2005, when the national plan for biodiesel “*Programa de Produção e Uso do Biodiesel: Marco Regulatório e Metas Físicas*” (PNPB) was launched with the “*Social Fuel Seal*” (SFS) program. The SFS offers incentives and tax-benefits to the agro-industries buying their raw material to smallholders

<sup>14</sup> The MIDAS program (Más Inversión para el Desarrollo Sostenible) aimed to generate and reinforce sustainable profits of the private sector, while guaranteeing an economical growth and the competitiveness of the sector.



# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



and offering them technical assistance, training and specific incomes (Federal Law 11,116, 2005) (*Rodrigues et al., 2007*).

Another business model appeared in the 1980's, defined as the "social sector" in the literature (*SHARP, n.d.* and the Article 25 of the '*Constitución Política de los Estados Unidos Mexicanos*'). This social model is based on a system of association between growers and factories. The extraction plant and, if applicable, the refineries, partly or fully, belong to the growers and groups of growers (associations or cooperatives) who supply it and who are therefore shareholders. The results of the exercise (losses or profits) are distributed between the members in proportion to their initial contributions. Growers receive the profits from the sale of their FFB as well as a percentage of the profit made on the sale of finished products.

As for the private ones and in addition to the shareholders, the "social companies" get partly their supply from independent or contracted growers, providing the same type of guarantees as those offered by the private sector. In the end of the 1990s, with the increase of the national demand for oils and fats, the federal government of Mexico launched the "*Programa Nacional de la Palma*" to galvanize the national palm oil production. Most of the plantations that were initiated with this plan belong to the social sector. According to the "*Plan nacional del sistema producto palma de aceite 2004-2014*" (*SAGARPA, 2004*), this business model counts 96% of the growers participate and generates 70% of the national production. Gonzalez Rodriguez (nd) reported that four of the 17 factories belong to the social sector.

The main examples of social sector enterprises in Honduras are COAPALMA, composed by 14 cooperatives (owning 5,000 hectares) and 80 independent growers and HONDUPALMA composed of 30 cooperatives (*La Prensa, 2013*). The sector has a total of 3 extraction plants and 2 refineries. In 2011, Rivera Rodriguez et al., estimated the importance of HONDUPALMA in the national sector at 12%.

In these two countries, the model of the "social sector" does not seem to be limited to oil palm cultivation but to characterize a typical operating model of these countries.

Similar models were launched in the 1990's in Peru with the support of the USAID and the government to replace coca cultivation by oil palm smallholders' plantations, to create growers' associations involved in the whole oil palm sector (production, extraction and refinery) and promote local development in rural



# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



areas. According to Junpalma (2014), the social sector represents 23,000 hectares divided among nearly 3,500 growers. The factories of the social sector are INDULPASA, OLPESA, OLAMSA and OLPASA. Their financial capitals are shared between growers, private groups and individual investors (which does not seem to be the case in other countries). They represent 30% of the national production.

In Costa Rica, another example based on the same principle exists, even though it is not named ‘social model’ in the literature. Indeed, in 1987, with the aim to limit private companies’ monopole over the sector, the state launched the « *Proyecto Agroindustrial de Coto Sur* », defined in the *Ley de la Republica N°7062* (26/03/1987), and projected the construction of an agro-industrial cooperative. The project was financed by the government, the *Banco Interamericano de Desarrollo* (BID) and the *Commonwealth Development Corporation* (Clare, 2011). Due to farmers’ reluctance towards government policies, the cooperative *Cooperativa Agroindustrial de Productores de Palma Aceitera Responsabilidad Limitada* (Coopeagropal R.L.) was created only in 1993 and its extraction plant started to operate in 1995. Today, Coopeagropal represents 15,000 ha (divided between the cooperative, the 630 shareholders and the independent producers) equivalent to 25 % of the national planted area, and gather 20% of the national palm oil production. In Costa Rica, all the growers (individually or in cooperatives) are invited to be shareholders of the cooperative Coopeagropal (field survey, 2017).

Finally, it also appears that the extraction plant in Barú (Panama), is shared between three cooperatives of growers (Copal, Coopemapachi and Coopegoth) and belongs to this model. In Nicaragua, growers’ cooperatives tried to reproduce this model and created the “*Unión de Cooperativas Palmeras, R. L*” (UCOPA, R. L.). However, because of the low production and the fall of the international prices, it was rapidly dissolved (IICA, 2006). The importance of the social model varies among the countries and is summarized in table 3.



# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



	Number of producers involved in the social sector	% of the national palm oil production produced by the social sector's model	% of the planted area belonging to the social sector model
<b>Costa Rica</b>	630	<20	21
<b>Honduras</b>	-	12	-
<b>Mexico</b>	96% of the producers	70	-
<b>Panama</b>	-	-	-
<b>Peru</b>	3500	30	30

**Table 3 : Importance of the ‘social sector’ in the national palm oil sectors**

The ‘social sector’ model appears to be characteristic and original of the Latin American sector, but has some similarities with initiatives led by NGOs in Africa and Asia to develop smallholder’s palm oil production independently of large groups’ factories.

These three business models, the agro-industrial model, the strategic alliances and the social sector, are characterized by an unequal share of economic benefits and risks, and power of decision between actors.

## **What challenges to reach sustainability?**

### **Reports of negative impacts of oil palm plantations**

With the rapid expansion of oil palm plantations, controversies aroused regarding socio-economical and environmental impacts observed in the region. Furumo et al. (2017) estimated that the sector has known a massive expansion between 2001 and 2014, with an annual production growth of 7% and an annual expansion of the cultivated area estimated at 9%. This growth, partly related to government incentives and the private groups’ expansion, can also be explained by the economic appeal it represents for small producers: it represents a long-term investment, providing them with a steady income throughout the plantation's operation, despite it is a fluctuant income (directly related to fluctuations in the price of oil).





# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



The Costa Rican producers interviewed quoted, for example, harvesting and selling bunches once a week, leading to weekly revenue. Most of them admit having been motivated by the prospect of regular income, which they did not have with other crops or livestock. In Costa Rica, that increase in the incomes translates into an improvement in the quality of life of the inhabitants of the region at the individual and collective levels: the region has seen a multiplication of individual possessions as means of transport, as well as a noticeable improvement in the services in the villages (maintenance of the roads, creation of new schools and colleges, health posts and small businesses).

The sector also presents a strong demand for labor, with more than 600,000 direct jobs (in plantations or factories, companies, etc.) and indirect jobs (transporters, etc.) generated in Latin America<sup>15</sup>, which are mainly located in the palm oil production basins. In Costa Rica this results in improvements in the production basins areas as mentioned above. Similar phenomenon are observed in Colombia, where the various companies have launched social services policies (health, education) and partnerships between the independent producers, the companies and its employees. These policies aimed to better integrate actors and improve relations in rural areas (*Gomez et al., 2005*). The same goes for the DANEC Group in Ecuador. The available literature does not enable to highlight similar impacts in the other countries of study.

The dynamic of expansion of the sector is reflected in a strong land conversion phenomenon in Costa Rica and Latin America. Furumo et al. (2017) conducted satellite image tracking to determine land evolution in Latin America. The study shows that 79% of new oil palm plantations were developed on previously deforested land and haven't caused direct deforestation. It appears that the expansion of the oil palm mainly occurred as a replacement of other forms of agriculture: livestock or traditional food crops (rice, beans, corn). The literature gives to this conversion some positive impacts as the recovery of degraded areas, a better carbon sequestration than other crops or a better forest cover (*Droulers, et al., 2010*). Negative impacts are also quoted especially the impact on food security in absence of food crops in the area (*Potter, 2015*), the decrease of available food in family farms: the food that was previously produced within the family, must now be purchased (*Guerena et al., 2013*).

It also appears that deforestation is the second land-use transition caused by oil palm expansion in Latin America. It is mainly (80%) located in South America, particularly in Peru, Brazil and Ecuador. In the scientific literature (*Dammert, 2014; Furumo, 2017*) and the media, Peru appears as the most affected by

---

<sup>15</sup> Estimation from available data in the literature for Colombia, Costa Rica, Ecuador, Honduras and Guatemala.



# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



this deforestation, as a result of private groups' expansion and the lack of coordination between the Ministries of Agriculture (MINAGRI) and of the Environment (MINAM) concerning oil palm expansion areas. In fact, there is a legal way to convert primary forests into plantations: if deforestation occurs on agricultural purposes, it is governed by the '*Leyes de Tierra y Agricultura*' of the MINAGRI and no longer by the '*Ley Forestal and Fauna Silvestre*' of the MINAM. These forests can then be legally deforested as it is seen as an expansion of agriculture (USDA, 2016). Consequently, between 2000 and 2010, 70% of oil palm expansion occurred in formerly forested areas (ie 1% of the country's deforestation) (*Gutierrez-Velez, 2011*). In Central America, Guatemala gather 93% of the deforestation caused by oil palm expansion (*Furumo et al., 2017*).

Among the consequences of this deforestation, the most recurrent in the literature are the pollution of water and soil resources and the loss of biodiversity. Deforestation leads to a strong erosion phenomenon that results in the transport of sediments and phytosanitary products into the rivers and, eventually, into the sea. In addition, the discharge of plant effluents and waters from oxidation lagoons of the extraction plants also cause a pollution of the soil and water next to it. Numerous examples of environmental impacts can be cited in Ecuador (*Ramos, 2008, Buitrón, 2001*) or Guatemala (*CMI Guatemala, 2015*), where, in June 2015, after heavy rains, nearly a thousand fishes were found dead in the waters of the river La Pasión. The link was made between this ecocide and the leaching of pesticides used in neighboring oil palm plantations (exploited by RESPA, a Grupo Hame company) (*CMI Guatemala, 2015*). In Honduras the waters polluted by the plantations of the Atlantida department flow into the Atlantic Ocean and affect the "Mesamerican Reef", the second largest coral reef in the world (*The Violence of Development, 2015*). Beyond the environmental impacts (loss of river and marine biodiversity, risk for other non-marine species, water and soil pollution, etc.), this phenomenon has led to economic and social impacts on the surrounding communities. Indeed, local populations use the rivers for both economic (fishing, watering animals) and social (women go with children to swim, play, etc.) activities that are now impossible because of the pollution (*CMI Guatemala, 2015*).

Also social conflicts have emerged, particularly as a result of land grabbing by large groups to plant oil palm, also causing land concentration. Two grabbing dynamics apply. The first example is the purchase of land from producers by the group to increase the group's supply basins. Many violence and threats to reluctant producers have been reported in Colombia and Honduras, where Mingorance (2006), Ballvé (2009) and the NGO Salva la Selva (2014) denounced the presence of paramilitaries in and near private groups' plantations. In Guatemala, if producers with landlocked parcels want to cross the companies'



plantations, they must request permission one week in advance and charge fees apply. These various measures have pushed many smallholders to sell their lands to large groups. The second type of land grabbing results in the non-recognition by governments of indigenous lands. These lands have either been distributed by the state or directly grabbed by private groups. This has caused many land conflicts with indigenous communities, forcing some of them to migrate to other regions or cities (*Droulers, et al., 2010, GRAIN, 2014*).

### **A move towards more sustainability**

In answer to the critics, most of the countries and the actors have changed their production policies. In Colombia and Brazil, for example, laws have been emitted in favor of social inclusion of the planters (tax benefits are given to plants whom suppliers are smallholders) and consequently the number of strategic alliances has rapidly grown. Numerous programs and actions were also launched to limit socio-economical and environmental impacts linked to oil palm expansion.

In Brazil, for example, the State launched in 2010, the program of sustainable oil palm production "*Programa Produção Sustentável de Palma de Óleo no Brasil*" (SPOPP). Its objective is to supervise the development of oil palm cultivation in order to preserve forests. In parallel, an agroecological zonification map (ZAE Palma) has been produced in order to establish a geographical limitation for oil palm plantations. The SPOPP set up new regulations and penalties on planted areas: oil palm is authorized on deforested areas before 2007 and already used by humans. Its development is particularly favored on degraded areas and is prohibited on native vegetation areas or areas belonging to indigenous lands. INPE<sup>16</sup> analyzes satellite images to verify that the ZAE is respected and to monitor areas of oil palm expansion (*Homma, 2016*). The BNDES (*Banco Nacional do Desenvolvimento*)<sup>17</sup> is authorized to issue advantageous loans on degraded areas to promote the development of the oil palm. It is not allowed to give these credits on non-degraded areas (*Englund, et al., 2015*).

In Ecuador, an environmental regulation was put in place by the *Acurdo No 015* of Ministry of the Environment (Ministerio del Ambiente) in February 2012. Depending on their production area, producers must submit an environmental license (> 100 ha), an environmental declaration (50 to 100ha) or

---

<sup>16</sup> INPES : *Instituto Nacional de Pesquisas Espaciais*

<sup>17</sup> Brazilian Bank of Investments. Federal company associated to the Ministry of Development, Industry and commerce of Brazil



environmental records (<75ha) issued by the Ministry of the Environment, which are supposed to guarantee the sustainability of plantations (*FEDAPAL, 2017*).

In Costa Rica, a collaboration was established between Canapalma<sup>18</sup> and the MINAE<sup>19</sup> and aimed at establishing good agricultural practices for the oil palm cultivation. In addition, when a producer wants to initiate a new plantation, he is subject to a visit of the Ministry of the Environment which controls the lands to be planted, their deforestation since 2005 (under RSPO standards), the presence of protected areas or remarkable species, the presence of a nearby watercourse, etc ... Until the planting project is not validated by the MINAE the grower cannot initiate the plantation.

## **RSPO enters the game**

Moreover, with the world's concern for a sustainable palm oil production and its impacts in South-East Asia, most of the private agro-industries are now willing to obtain the RSPO (Roundtable on Sustainable Palm Oil) certification to secure their supply and reassure their clients and the final consumers (*RSPO, 2017*). Its objective is to promote the growth and sustainability of the sector by promoting the implementation of sustainability principles. In 2005, the RSPO set up a certification panel for the entire value chain, which aims at ensuring a low impact of the sector on the environment including biodiversity, as well as a respect for local populations. This certification requires legal, economic, environmental and social good practices. It has well spread in Latin America, reaching 285 000 ha of certified plantations (23% of the regional planted area) and 697 900 MT of Certified Sustainable Palm Oil (19 % of the regional CPO production) in 2017, making Latin America the region with the major potential for sustainable production (*Naranjo, 2015*).

As required by the RSPO, some Latin countries have validated national interpretations of the RSPO principles and criteria. Honduras was the first country to conduct this national interpretation (validated in 2013) and incorporated certification in the requirements of its "social enterprises". Other countries also have validated the national requirements but not all have adapted it to the local business models: Colombia, Ecuador (2010), Guatemala and Peru (2013).

---

<sup>18</sup> CANAPALMA (*Camara Nacional de Productores de Palma*) is the national syndicate of oil palm producers in Costa Rica

<sup>19</sup> MINAE (*Ministerio de Ambiente y Energía*) is the ministry of environment and Energy of Costa Rica



# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



Costa-Rica is a good example of this ambition of both private and public actors of the palm oil sector to move towards a sustainable production, and it ranked 4th in the quantity of Certified Palm Oil Produced (CSPO) with 159 804 of Certified Palm Oil (CSPO) produced (58.8% of the national production), reaching the highest certification rate in Latin America (*RSPO, 2017*).

Palma Tica (a Costa Rican private company belonging to the agro-industrial model) is currently the only certified planter: the company became a member in 2012, and received certification for all of its plantations in 2015. Coopeagropal (model of the 'social sector') is still in the process of being certified. Today, most producers are strongly encouraged by both companies to adopt the RSPO standards and companies put in place measures to help them (technical assistance, funding necessary for certification, etc.). The two companies, with the aim of generalizing the certification, to their plantations and also to the contracted producers (under the strategic alliances model) provide trainings in order to sensitize them and the agricultural employees to the good agricultural practices to adopt, from environmental (recycling, phytosanitary treatment) to sanitary measures (wearing of Personal Protective Equipment). The RSPO certification also has a social aspect, securing employment (with the obligation to pay the "*Seguro de Riesgos de Trabajo*"<sup>20</sup>, ensuring a minimum wage, or prohibition of child labor) .

The companies also offers a financial motivation towards the adoption of RSPO by offering better prices for certified production (\$ 2.5 / ton of bunches instead of 1.5\$). Today the non-certified producers have difficulties to sell their production to the companies, pushing them to move towards the certification process.

A similar action was observed in Honduras with the establishment of the "*Plan de Divulgacion de las Acciones del Sector Palmero en el Marco de la Certificacion RSPO*" whose purpose was to inform the actors on the importance of the RSPO certification. It has been highly promoted by companies and producers. Today the country is showing a desire to adhere to the RSPO standards, which appears to be the best way to be competitive and to open up to international markets by ensuring the sale of their products (*FHIA Hn , 2017*). Companies in the sector provide training and technical assistance to growers to obtain certification. This allows them to increase productivity, incomes and lower production costs (*FHIA Hn, 2017*).

---

<sup>20</sup> Mandatory work insurance for the employees that guarantee medical care in case of accident or disease.





# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



However, despite these efforts and the strong emphasis placed on RSPO certification in the region, some abusive oil palm expansions tarnish regional investments, and controversies have recently followed negative social and environmental impacts due for example to the high deforestation (among others by the Grupo Melka in Peru (*USDA, 2016*)), the pollution of natural resources (in Guatemala (*CMI Guatemala, 2015*) or in Ecuador (*Ramos, 2008; Buitrón, 2001*)) or the expulsion of indigenous populations out of their territory (mainly in Ecuador or Colombia, (*GRAIN, 2014*)). Thus, despite the vigilance reigning on oil palm development in America, the sector seems to face the same issues as Southeast Asia although it appears to be globally more controlled and more virtuous.

Today, the literature does not offer a satisfying crossover critic on the business models' repercussion on local population or the environment. Today the agro-industrial model is the main target of criticism and complaints and the large-scale expansion of private groups is pointed out in deforestation, land grabbing or water pollution issues. However the literature also testifies of its implication in rural and social development. The social models (the social alliances and the 'social sector') have been less criticized in the literature so far, but comparison studies between the business models are lacking to estimate their relative socio-economic and environmental impacts.

## Conclusion

After several decades of a slow development in Latin America, the palm oil sector has experienced since 2001 a rapid growth, which has successively affected a large majority of the tropical countries of Latin America. However, an unequal importance is accorded nationally to the palm oil sector depending on the historical involvement of the various actors and especially of the governments. The Brazilian and Mexican governments, in the 1960s and 2000s, Colombian, since the 1960s, or Honduras in the 1970s were particularly involved in development and promotion of the sector. Such public support have raised the interest of private companies which quickly became a main actor and driving force of development in the region.

Today three business models characterize the American sector: the agro-industrial sector, the "social" sector, and the "strategic alliances". The last two are dominant in Mexico and Honduras, and favor the social aspect of production, with the aim of turning oil palm production into a driver of social integration and territorial development.





# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



The agro-industrial model, dominant in Brazil, Guatemala and Costa Rica, prioritizes profitability and profit. However, it has been recently moving towards sustainable production, in relation with the creation of the RSPO in 2004.

Also, following the awareness of oil palm problems in Asia, a special attention has been paid to the environmental aspect and many measures have been taken by the governments to ensure preservation of the environment and to limit deforestation in Latin America. This awareness has resulted in the establishment of more sustainable national public policies, seeking to achieve territorial cohesion and to ensure a development that is respectful of the environment and of the local populations. Governmental policies have evolved from expansion policies to management policies (in particular in Brazil). The sector is moving towards more sustainability in production or at least shows a strong desire to develop in this direction. All the actors are involved in this process and will play their part in the future of the sector: governments (through the implementation of public policies that encourage and oversee the development of the sector), agro-industries (through the adoption practices respectful of the environment and the integration of individual planters), growers (whether from an individual point of view by adopting good agricultural practices or collectively by organizing themselves to allow a better integration of the sector), and final consumers.

This is a preliminary study based on literature. Deeper analyses of case studies are needed to move forward to context-specific recommendations.

## **Acknowledgements**

The PAHAL project has received financial support from PalmElit SAS (Montpellier, France). The authors are grateful to the scientific and technical service for their trust.

The work was undertaken at CATIE (Centro Agronómico Tropical de Investigación y Enseñanza), in the IDEA program. The authors are also grateful to CATIE and the program members for their logistical and scientific support throughout the study.

Finally, the authors are also grateful to the experts, the growers, the workers, the company managers, the plantation dwellers interviewed and met during the field study in Costa Rica, for the time they spent answering our questions and sharing their knowledge, always in a very friendly and generous way.



## List of references

Ballvé, Teo. “The Dark Side of Plan Colombia.” *The Nation*, June 15, 2009. <https://www.thenation.com/article/dark-side-plan-colombia/>.

BID, IICA, and Consuplan. *Fomento del Cultivo de la Palma Africana en el Valle del Aguan*. IICA Biblioteca Venezuela, 1971.

[https://books.google.co.cr/books?id=tI0gAQAIAAJ&pg=PA222&lpg=PA222&dq=proyecto+valle+del+aguan+honduras+palma&source=bl&ots=8kdOwRL74J&sig=tHjXhxOrlqqsmD4UErPqCy-okjQ&hl=fr&sa=X&redir\\_esc=y#v=onepage&q=proyecto%20valle%20del%20aguan%20honduras%20palma&f=true](https://books.google.co.cr/books?id=tI0gAQAIAAJ&pg=PA222&lpg=PA222&dq=proyecto+valle+del+aguan+honduras+palma&source=bl&ots=8kdOwRL74J&sig=tHjXhxOrlqqsmD4UErPqCy-okjQ&hl=fr&sa=X&redir_esc=y#v=onepage&q=proyecto%20valle%20del%20aguan%20honduras%20palma&f=true).

Buitrón, Ricardo. “El Caso de Ecuador: ¿El Paraíso En Siete Años?” In *El Amargo Fruto de La Palma Aceitera: Despojo Y Deforestación, Movimiento Mundial por los Bosques Tropicales.*, 19–27, 2001. [http://wrm.org.uy/fr/files/2013/04/El\\_amargo\\_fruto\\_de\\_la\\_palma\\_aceitera.pdf](http://wrm.org.uy/fr/files/2013/04/El_amargo_fruto_de_la_palma_aceitera.pdf).

CANAPALMA. “Libro informacion,” October 2014.

Carrión, Lucía, and María Cuví. *La palma africana en el Ecuador: tecnología y expansión empresarial*. Colección Investigaciones, no. 4. Quito, Ecuador: Facultad Latinoamericana de Ciencias Sociales (FLACSO), 1985. <http://www.flacsoandes.edu.ec/biblio/catalog/resGet.php?resId=21552>.

Clare Rhoades, Patricia. *Los Cambios En La Cadena de Producción de La Palma Aceitera En El Pacífico Costarricense: Una Historia Económica, Socioambiental Y Tecnocientífica 1950-2007*. Sociedad Editora Alquimia 2000. San José, Costa Rica, 2011. <https://cihac.fcs.ucr.ac.cr/wp-content/uploads/2016/10/Los-cambios-en-la-cadena.pdf>.

CMI Guatemala. “Repsa Aceptó En Mayo Responsabilidad En Ecocidio Y El Gobierno No Movió Un Dedo.” CMI Guatemala, June 24, 2015. <https://cmiguate.org/repsa-acepto-responsabilidad-en-ecocidio-y-luego-la-nego/>.



# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



Coopemapachi R.L. “Historia de Coopemapachi R.L.,” 2005.  
<http://www.coopemapachi.com/nosotros.html>

Dabène, Olivier. *L’Amérique Latine À L’époque Contemporaine*, 7e Édition. Armand Colin. U. 272 P., 2012.

Dammert B., Juan Luis. “Cambio de uso de suelos por agricultura a gran escala en la Amazonía Andina: El caso de la palma aceitera.” Lima, Aout 2014. <http://www.amazonia-andina.org/amazonia-activa/biblioteca/publicaciones/cambio-uso-suelos-agricultura-gran-escala-amazonia-andina>.

De Andrade, Emeleocipio B. “A cadeia produtiva da palma de óleo no Estado do Pará: Uma avaliação crítica.” Audiência Pública sobre o Programa Nacional de Produção Sustentável de Óleo de Palma., Brasília, March 26, 2015. <http://www2.camara.leg.br/atividade-legislativa/comissoes/comissoes-permanentes/capadr/audiencias-publicas/audiencias-publicas-2015/audiencia-publica-26-de-marco-de-2015-faepa>.

De la Rosa D. 2012. El modelo de alianzas productivas y sociales: “un proyecto hecho realidad” PALMAS, 33 (2): 96-98 pp

Deustua Borasino, Elena. “Capítulo 2. La cadena de la palma aceitera en contexto.” In *¿Agroindustria en la Amazonía? Posibilidades para el desarrollo inclusivo y sostenible de la palma aceitera en el Perú*, GRADE., 63–68. Lima: GRADE, 2016.  
[http://biblioteca.clacso.edu.ar/Peru/grade/20161013025755/LIBROGRADE\\_palma.pdf](http://biblioteca.clacso.edu.ar/Peru/grade/20161013025755/LIBROGRADE_palma.pdf).

Droulers, Martine, Adriano Venturieri, Moises Mourão, Marcelo Thalês, and René Pocard. “Le palmier à huile : un avenir pour l’Amazonie ?” *Confins. Revue franco-brésilienne de géographie / Revista franco-brasilera de geografia*, no. 10 (November 17, 2010). <http://confins.revues.org.bases-doc.univ-lorraine.fr/6867>.

El 19 Digital. “La Palma Africana, el Oro Verde del Caribe Nicaragüense.” *El 19 Digital*, February 25, 2017. <https://www.el19digital.com/articulos/ver/titulo:52651-la-palma-africana-el-oro-verde-del-caribe-nicaraguense>.



# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



EmpresasyEconomia.com. “Fedepalma, 50 Años Contribuyendo Al Desarrollo de Colombia,” October 24, 2012.

[http://www.marcasymercados.com/eye/index.php?option=com\\_content&view=article&id=1233%3Afedepalma-50-anos-contribuyendo-al-desarrollo-de-colombia&catid=37%3Anoticias&Itemid=54](http://www.marcasymercados.com/eye/index.php?option=com_content&view=article&id=1233%3Afedepalma-50-anos-contribuyendo-al-desarrollo-de-colombia&catid=37%3Anoticias&Itemid=54).

Englund, Oskar, Göran Berndes, U. Martin Persson, and Gerd Sparovek. “Oil Palm for Biodiesel in Brazil—risks and Opportunities.” *Environmental Research Letters* 10, no. 4 (2015): 044002.

FEDEPALMA. “Boletín económico,” abril 2017, 8.

Fedepalma. “Desempeño del sector palmero colombiano.” Juillet 2016. [http://web.fedepalma.org/sites/default/files/files/18072016\\_Desempen%CC%83o\\_sector\\_2015\\_2016.pdf](http://web.fedepalma.org/sites/default/files/files/18072016_Desempen%CC%83o_sector_2015_2016.pdf).

FEDEPALMA. “Las Alianzas Productivas Estratégicas en palma de aceite.” Bogotá: FEDEPALMA, juin 2010. [http://cecodes.org.co/site/wp-content/uploads/publicaciones/alianzas\\_productivas\\_estrategicas\\_en\\_palma\\_ni.pdf](http://cecodes.org.co/site/wp-content/uploads/publicaciones/alianzas_productivas_estrategicas_en_palma_ni.pdf).

Feintrenie L, Chong WK, Levang P. 2010. Why do farmers prefer oil palm? Lessons learnt from Bungo district, Indonesia. *Small-Scale Forestry*, **9** (3): 379-396

Foreign Agriculture, FAS. “Perú Tiende Hacia La Producción de Aceite de Palma.” PALMAS, November 1981.

Furumo, Paul Richard, and T. Mitchell Aide. “Characterizing Commercial Oil Palm Expansion in Latin America: Land Use Change and Trade.” *Environmental Research Letters* 12, no. 2 (2017): 024008. doi:10.1088/1748-9326/aa5892.

Gomez, Ibete, Mauricio Mosquera, and Carlos Castilla. “Oil Palm: A Sustainable Agro-Industry in Colombia.” OCL - Oilseeds and Fats, Crops and Lipids, March 2005, 121–24.

Gonzalez Rodriguez, Duperly. “Palma de Aceite En Mexico.” n.d. [http://www.sharp-partnership.org/RSS/Rodriguez\\_Palmicultura\\_en\\_Mxico.pdf](http://www.sharp-partnership.org/RSS/Rodriguez_Palmicultura_en_Mxico.pdf).



# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



GRAIN. “GRAIN — Les Nouvelles Frontières Du Palmier À Huile,” September 22, 2014.  
<https://www.grain.org/fr/article/entries/5011-les-nouvelles-frontieres-du-palmier-a-huile>.

Guereña, Arantxa, and Ricardo Zepeda. “The Power of Oil Palm: Land grabbing and impacts associated with the expansion of oil palm crops in Guatemala: The case of the Palmas del Ixcán company.” Oxfam America Research Backgrounder series. Oxfam America, 2013.  
<https://www.oxfamamerica.org/static/media/files/the-power-of-oil-palm.pdf>.

Gutierrez-Velez, V. H., R. DeFries, M. Pinedo-Vasquez, M. Uriarte, C. Padoch, W. Baethgen, K. Fernandes, and Y. Lim. “High-Yield Oil Palm Expansion Spares Land at the Expense of Forests in the Peruvian Amazon.” *Environmental Research Letters* 6, no. 4 (2011). doi:10.1088/1748-9326/6/4/044029.

Homma Oyama, Alfredo Kingo. “Cronologia do Cultivo do Dendezeiro na Amazônia.” *Documentos* 423, November 2016, 52.

IICA. “Cultivo de la Palma Africana - Guia Technica.” Managua, Nicaragua, October 2006.  
<http://www.galeon.com/subproductospalma/guiapalma.pdf>.

JUNPALMA. “Estadística de La Palma Aceitera Al 2014,” 2014.  
<http://junpalmaperu.org/sites/default/files/archivos/2017/publicacion/07/informe-de-la-palma-al-2014.pdf>.

Les Echos. “United Fruit, La Mère Des Républiques Bananières.” *Lesechos.fr*, July 28, 2009.  
[https://www.lesechos.fr/28/07/2009/lesechos.fr/300366946\\_united-fruit--la-mere-des-republiques-bananieres.htm](https://www.lesechos.fr/28/07/2009/lesechos.fr/300366946_united-fruit--la-mere-des-republiques-bananieres.htm).

Mata García, Bernardino. *Palma de aceite en Mexico : Política gubernamental e innovacion tecnologica*. Mexico: CEDRSSA : Centro de Estudios para el Desarrollo Rural Sustentable y la Soberanía Alimentaria, 2014.

May, Stacy, and Galo Plaza Lasso. *The United Fruit Company in Latin America*. 7. National Planning Association, 1958.

Míngorance, Fidel. ““The flow of palm oil Colombia- Belgium/Europe A study from a human rights perspective,”” November 2006.



# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



Murdiyarto D, Dewi S, Lawrence D, Seymour F (2011) Indonesia's Forest Moratorium: A Stepping Stone to Better Forest Governance? Center for International Forestry Research, Bogor, Indonesia).

Naranjo, Fransico. "Deforestation and Palm Oil Cultivation in Latin America | RSPO Palm Oil Debate." RSPO - Roundtable on Sustainable Palm Oil, April 28, 2015. <http://www.rspo.org/about/palm-oil-debate/blog/deforestation-and-palm-oil-cultivation-in-latin-america>.

Nkongho R, Feintrenie L, Levang P. 2014. The strengths and weaknesses of the smallholder oil palm sector in Cameroon. [OCL, 21\(2\)](#) D208. DOI: 10.1051/ocl/2013043

Potter, Lesley. Managing Oil Palm Landscapes: A Seven-Country Survey of the Modern Palm Oil Industry in Southeast Asia, Latin America and West Africa. Center for International Forestry Research (CIFOR), Bogor, Indonesia, 2015. <http://www.cifor.org/library/5612/managing-oil-palm-landscapes-a-seven-country-survey-of-the-modern-palm-oil-industry-in-southeast-asia-latin-america-and-west-africa/>.

PRONicaragua. "Nicaragua Expands Palm Oil Production." PRONicaragua Investments, February 7, 2017. </en/press-releases/2113-nicaragua-expands-palm-oil-production/>.

Ramos, Ivonne. "Ecuador: Impactos Sociales Y Ambientales de La Palma Aceitera | WRM." Boletín 129, April 28, 2008. <http://wrm.org.uy/es/articulos-del-boletin-wrm/seccion3/ecuador-impactos-sociales-y-ambientales-de-la-palma-aceitera/>.

Rival, Alain, and Patrice Levang. 2013/ La palme des controverses: Palmier à huile et enjeux de développement. Quae.

Rivera Rodríguez, Claudio Alberto, and Juan Luis Alfonso Alemán. "La Historia de HONDUPALMA, Una Empresa Cooperativa Agroindustrial de La Reforma Agraria.," 2011. [http://rc.upr.edu.cu/bitstream/DICT/701/1/Rivera\\_11.pdf](http://rc.upr.edu.cu/bitstream/DICT/701/1/Rivera_11.pdf).

Rodrigues, Rodrigo Augusto, and José Honório Accarini. "Programma Brasileiro de Biodiesel." Biocombustíveis No Brasil. Realidades E Perspectivas, 2007. <http://www.dc.itamaraty.gov.br/imagens-e-textos/Biocombustiveis-09ing-programabrasileirobiodiesel.pdf>.

RSPO., 2017. <http://www.rspo.org>





# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



RSPO. “Certified Growers,” July 31, 2017. <http://www.rspo.org/certification/certified-growers>.

RSPO. “Palmatec Corporation de Costa Rica S.A. | Member,” 2015. <http://www.rspo.org/members/2422/Palmatec-Corporation-de-Costa-Rica-S.A>.

SAGARPA. “Plan nacional del sistema producto palma de aceite 2004 -2014.” Mexico, September 2004. [http://www.comexpalma.org/2017/imgs/plan\\_rector\\_nacional.pdf](http://www.comexpalma.org/2017/imgs/plan_rector_nacional.pdf).

Salva la Selva. “Palma Aceitera Desangra a Honduras,” May 23, 2014. [https://www.salvalaselva.org/peticion/887/pama-aceitera-desangra-a-honduras?\\_\\_pr3vU\\_\\_=#more](https://www.salvalaselva.org/peticion/887/pama-aceitera-desangra-a-honduras?__pr3vU__=#more).

SHARP. “La Relación Entre Pequeños Productores Y Empresas Del Sector Palmero En Honduras,” n.d. [http://www.sharp-partnership.org/smallholder-models/objects/pdfs/estudio\\_de\\_caso\\_sharp\\_honduras\\_final](http://www.sharp-partnership.org/smallholder-models/objects/pdfs/estudio_de_caso_sharp_honduras_final).

The Violence of Development. “Palm Oil Production in Honduras.” The Violence of Development, January 4, 2015. <https://theviolenceofdevelopment.com/palm-oil-production-in-honduras/>.

USAID. “USAID Assistance for Plan Colombia | Fact Sheet | U.S. Agency for International Development,” February 8, 2016. <https://www.usaid.gov/news-information/fact-sheets/usaid-assistance-plan-colombia>.

USDA. “Production Supply and Distribution Online - Foreign Agricultural Service,” 2017. <https://apps.fas.usda.gov/psdonline/app/index.html#/app/home>.

Washburn, Richard. “Historia del cultivo de la palma aceitera en Centroamerica.” In Estrategias Gerenciales de Empresas Agrobiotecnologicas, Informe AI, Instituto Interamericano de Cooperacion Para la Agricultura Sobre Empresas Biotecnologicas en Costa Rica, Vol. I & II. Boletin tecnico UFCO. IICA Biblioteca Venezuela, 1987. [https://books.google.co.cr/books?id=wLQqAAAAYAAJ&pg=PT32&lpg=PT32&dq=historia+del+cultivo+de+la+palma+de+aceite+en+guatemala&source=bl&ots=T-0KsRfFos\\_&sig=w0FOM0KgAJII6te7sZBglzOPxjQ&hl=es&sa=X&redir\\_esc=y#v=onepage&q=guatemala&f=false](https://books.google.co.cr/books?id=wLQqAAAAYAAJ&pg=PT32&lpg=PT32&dq=historia+del+cultivo+de+la+palma+de+aceite+en+guatemala&source=bl&ots=T-0KsRfFos_&sig=w0FOM0KgAJII6te7sZBglzOPxjQ&hl=es&sa=X&redir_esc=y#v=onepage&q=guatemala&f=false).



# Land Governance in an Interconnected World

ANNUAL WORLD BANK CONFERENCE ON LAND AND POVERTY  
WASHINGTON DC, MARCH 19-23, 2018



## List of tables

Table 1 : Importance of the private companies in the national palm oil sectors

Table 2 : Importance of the strategic alliances in the national palm oil sectors

Table 3 : Importance of the 'social sector' in the national palm oil sectors