

COLOMBIA'S SUSTAINABLE PALM OIL PROGRAM

We invite you to be part of this initiative. Only through the combined force of many hands, Colombian oil palm agroindustry will be able to successfully tackle the challenges it faces in the local and external environment.

Our goal is to work even harder, vigorously and with determination, to make sustainable palm oil in Colombia for the entire world.



FOUNDATIONS OF COLOMBIA'S SUSTAINABLE PALM OIL PROGRAM.

*A single force combining several hands for
the sustainability of oil palm agroindustry*



INITIAL WORK



Modern societies believe and long for sustainable development; thus, world markets are becoming increasingly demanding, requiring products made with the highest standards of responsibility to the planet and to present and future generations.

The development of Colombian oil palm agroindustry has not been unconcerned with this goal. The palm oil sector understands that a balance is needed to secure the future. We can safeguard our agro-industry through sustainability.

The Colombian palm oil sector has been working for more than two decades towards achieving sustainability in the agro-industry.



LAUNCH OF COLOMBIA'S SUSTAINABLE PALM OIL PROGRAM

Our economic, environmental and social foundations, built through the effort and determined commitment of Fedepalma (Federación Nacional de Cultivadores de Palma de Aceite - *National Federation of Oil Palm Growers*) and the palm growers, make it possible to move forward with the new, great effort of this agro-industry: Colombia's Sustainable Palm Oil Program.

However, we cannot achieve this on our own. It is conceived as a multi-stakeholder strategy in which the skills, knowledge and efforts undertaken by government, trade unions, civil society organizations, academia, producers, consumers, and in general, the different stakeholders related to the oil palm ecosystem in Colombia, are joined, coordinated and strengthened to consolidate the development of this ecosystem in a sustainable manner.

For this reason, this initiative will pursue its own governance structure which will allow it to establish itself as a country-wide commitment. It will also facilitate a compendium of resources and public policies aimed at developing and strengthening the palm growers' skills, especially those of small and medium-scale growers.

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SOCIAL

- 2009: Book "Myths and realities of the palm sector in Colombia".
- 2009: The contest "Female palm grower" is created.
- 2010: Implementation of the rural development scheme of associative and inclusive business models.
- 2011: Profiling of employment in the palm sector - Fedesarrollo (Fundación para la Educación Superior y el Desarrollo *Foundation for Higher Education and Development*).
- 2013: Emblematic cases in the Colombian palm sector.
- 2014: Trade union strategy and social responsibility strategy.
- 2017: Survey of direct employment in the Colombian palm sector.



ECONOMIC

- 1991: Founding of C.I. Acepalma, international trading company of raw materials for the agro-industry and its products.
- 1994: Establishment of the Fund for the Promotion of the Palm Sector (Fondo de Fomento Palmero, FFP), a parafiscal mechanism that makes it possible to research and provide sectoral public goods to oil palm growers.
- 1997: Establishment of the FEP Palmero (Fondo de Estabilización de Precios para el Palmiste, aceite de palma y sus fracciones [Fund for the stabilization of prices of palm kernel, palm oil and its fractions]), a parafiscal tool for stabilizing the income of national producers of crude palm and palm kernel oils when selling to different markets, and an effluent treatment system implemented in 95% of the processing plants.
- 1999: ICR (Incentivo a la Capitalización Rural [Rural Capitalization Incentive]) for small, medium, and large producers and partnerships.
- 2003: First financial year where costs are benchmarked for fruit and palm oil production.
- 2004: Law 939 on income tax exemption for late-yielding crops.
- 2008: Creation of a local market for oil palm biodiesel.
- 2009: Identification of the causal agent of bud rot.
- 2013: Development and adjustment of tissue culture technology (cloning) and strengthening of the laboratory with a capacity of 150,000 plants per year.
- 2015: Use of the wide-bed and alternate furrow irrigation system increases water use efficiency by 46%. Design and registration of the Geopalma and CeniSiic information systems.



SPROUTS OF PEACE

Agriculture is a key sector for peace consolidation in Colombia; in view of the implementation of peace agreements throughout the entire country and since the Colombian oil palm sector is located in the areas most affected by the armed conflict (Zonas Más Afectadas por el Conflicto Armado, ZOMAC), this agro-industry is committed to developing inclusive businesses in which the different actors of the so-called post-conflict participate.

It is important to note that in 2016, a DNP (Departamento Nacional de Planeación - *National Planning Department*) study found that within the group of municipalities that have faced armed conflict, the income of oil palm-growing municipalities is 30% higher than that of municipalities not having this agricultural development, classifying this difference as the “oil palm social dividend”.

SEEDS OF SOCIAL DEVELOPMENT



As an agro-industry, we contribute to Colombia's rural development; through roughly 140 associative and inclusive business models, the oil palm sector has managed to connect small producers to the supply chain, allowing them to acquire technology and improve their capacity to generate income, positively transforming their lives and those of their families.

Oil palm cultivation is considered an important generator of formal employment in our country: totaling more than 170,000 direct and indirect jobs in 2017.

Oil palms generate up to 30 times more jobs per unit area than other large-scale crops such as soybeans. This was evidenced by a World Bank study (2011) that researched this issue; the study also found that a 1% increase in the area of oil palm production results in a decrease in the poverty levels of communities belonging to the plantations' area of influence that ranges between 0.15 and 0.25 percentage points.

The oil palm sector has 13 corporate foundations and a wide variety of social responsibility programs which contribute to the local development of communities by focusing their work on early childhood, nutrition, family consolidation, income generation, elderly care, construction of rural housing for palm workers, and the creation of recreational spaces, among others.



ENVIRONMENTAL

- 1997: Signing of the Cleaner Production Agreement with the Ministry of the Environment.
- 2002: Publication of the first Environmental Guide for the Oil Palm Subsector. (Minambiente (Ministerio de Ambiente y Desarrollo Sostenible [Ministry of the Environment and Sustainable Development]), SAC (Sociedad de Agricultores de Colombia [Colombian Farmers' Association], Fedepalma).
- 2004: Publication of the study "Environmental performance of the palm sector in Colombia - Evaluation and Prospects".
- 2009: Approval of an Umbrella Project under the Clean Development Mechanism, for the United Nations of the Umbrella Project, MDL (Mecanismo de Desarrollo Limpio [Clean Development Mechanism]), for the reduction of greenhouse gases in the Colombian palm sector.
- 2007-2011: Fedepalma, Cenipalma (Centro de Investigación en Palma de Aceite [Colombian Oil Palm Research Center]), the Humboldt Institute and the WWF jointly created the project "Biodiverse Palm Landscape [Paisaje Palmero Biodiverso] - PPB", which was presented by Colombia to the Global Environment Facility (GEF), obtaining 4.25 million dollars in funding for its implementation.
- 2012-2018: Implementation of the GEF Biodiverse Palm Landscape project, which provided valuable guidance for the oil palm agro-industry's development in harmony with the country's biodiversity and natural wealth.

MORE RESPONSIBLE PALMS:

The oil palm in Colombia is unique and differentiates itself by its commitment to economic, environmental and social sustainability.

The oil palm is a perennial crop that implies a long-term vision; for it to succeed, the business's management must take full advantage of its productive and economic potential, care for the environment and positively transform the situation of palm-growing communities.

Colombia has an agricultural frontier of more than 40 million hectares, of which only 17% (7.1 million) have agricultural crops, according to the National Agricultural Census conducted by DANE (Departamento Administrativo Nacional de Estadística - *National Administrative Department of Statistics*). Of this 17%, roughly over 500,000 hectares are cultivated with oil palm (representing 1%), none of which are located in the Amazon region.

The Colombian oil palm sector is made up of more than 6,000 producers, of which 84% are smallholders with less than 50 hectares. The agro-industry operates in nearly 160 municipalities belonging to 21 departments in the country.

It is located in tropical regions and its actors are organized in 66 palm-growing "nuclei" that currently produce palm oil.

Under the leadership of Fedepalma and Cenipalma, the UAATAS (Unidades de Asistencia y Auditoría Técnica, Ambiental y Social - *Technical, Environmental and Social Assistance and Audit Units*) have been strengthened within the palm-growing nuclei, with the aim of providing comprehensive technical assistance services to all producers making up the nucleus, especially those who lack this service. Through the UAATAS, a strategy has been developed to focus on the triple bottom line (environmental, social and economic) of promoting sustainable crop production; the challenge is to increase production rates from 3.8 t/ha/year in 2017 to 5 t/ha/year in 2023.

AN ENVIRONMENTALLY RESPONSIBLE PRODUCTIVE CHAIN

The capacity of this Colombian agro-industry to innovate and contribute to the improvement of the environment has been reflected in the development of palm biodiesel, which is the result of various research projects carried out by Cenipalma together with external institutions (Ecopetrol- Colombian Petroleum Institute, Coordinadora Mercantil, Transmilenio, General Motors, the University of Antioquia, and the Ministry of Mines and Energy).

This research led to the implementation and use of palm biodiesel as a blend component in fossil diesel. Work with engines in bench tests, evaluation of blends up to B50 at Transmilenio, and evaluation of blends up to B20 in General Motors trucks, allowed the implementation of this program in Colombia with a regulatory approval for the use of blends up to B10. Subsequently, it was demonstrated that the use of Colombian palm oil-based biodiesel can reduce greenhouse gas emissions by up to 83% compared to the production and use of traditional fossil fuels.

Likewise, studies by Cenipalma have shown that the agro-industry's carbon footprint can be improved through the efficient use of the biomass remaining as a result of the palm oil extraction process; at the same time, this biomass has new uses such as cogeneration, pellets, biochar, cellulose, and bioliquids, which represent an additional source of income for the Colombian palm sector and its communities.



THE PALM OIL SECTOR HAS POTENTIAL

Palm oil is the most consumed and traded oil in the world. Of the 215 million tonnes of worldwide demand for oils and fats in 2017, palm oils represented 34%. Palm oil is a highly desired product by various industries, since its versatility makes it a key raw material in the manufacture of food products, cosmetics, pharmaceuticals, personal and household cleaning products, as well as biofuels, among others.

At the same time, oil palm is the most productive crop in terms of oil generation per hectare; it requires up to 8.8 times less land than other oilseeds to meet the global demand for oils and fats.

Colombia is the world's fourth largest producer of palm oil (after Indonesia, Malaysia and Thailand) and the largest in the Americas, accounting for 2% of global crude palm oil production, with over 1.6 million tonnes in 2017. This record production figure last year represented a 42% increase compared to 2016, thus, this booming agricultural sector in Colombia is growing rapidly to soon exceed two million tonnes per year.

The Colombian palm oil sector has transcended the country's

borders to establish its presence and leadership in foreign markets. This is true to such an extent that, for the first time in its history, half of the national production of crude palm oil is sold in international markets; mainly to the European market, which traditionally demands about 60% of the total exports from the Colombian oil palm agro-industry.

In 2017, production in the palm oil sector achieved a share of 11% of the country's agricultural GDP, becoming a reference point for growth and innovation in Colombian agriculture. In this context, productivity is a fundamental element of sustainability; our goal for 2023 is to reach an average annual production per hectare of 5 tonnes of crude palm oil and 23 tonnes of fresh fruit bunches.

Taking into account the improvement in the population's income as a result of greater economic growth and the demand for carbohydrates, oils and proteins, recent studies show that worldwide demand for palm oil will grow by nearly 50 million tonnes in the next 20 years. Colombian oil-palm agriculture has great potential to supply this market successfully and without deforestation



OIL-PALM AGROINDUSTRY WITHOUT DEFORESTATION

The development of oil palm cultivation has not been a significant cause of deforestation in Colombia. This is evidenced by studies such as the one published in 2016 by Varsha Vijay and Stuart L. Pimm of Duke University, entitled: “The impacts of oil palm on recent deforestation and biodiversity loss”, which shows that although the cultivated area grew by 69.5% between 1989 and 2013, the deforestation associated with oil palm agriculture was estimated at 0%.

This commitment to develop the oil palm agro-industry without deforestation has recently been ratified with the signing of the Zero Deforestation Agreement, signed by the Ministry of the Environment and Sustainable Development, the Ministry of Agriculture and Rural Development, the Ministry of Industry, Trade and Tourism, Fedepalma and several companies from the palm oil sector, with the support of the governments of Norway, Germany, and the United Kingdom.

The Colombian palm oil sector is committed to the conservation of biodiversity. Colombia is one of few megadiverse countries in the world; that is why we seek to ensure that the development of our agro-industry is in line with our natural heritage.

Since 2012, Fedepalma has been implementing the “Biodiverse Palm Landscape-PPB” project, financed by recognized entities worldwide in partnership with Cenipalma and prestigious institutions from the sector. This project has improved our work in terms of identifying and managing high conservation value (HCV) areas in oil palm regions, planning and designing projects in harmony with their

natural environment, and adopting good practices with an agro-ecological focus.

Since 2004, Fedepalma has been a member of the Roundtable on Sustainable Palm Oil (RSPO), the most internationally recognized sustainability standard for palm oil. As a result of this work, by the end of 2017, nine Colombian palm oil companies – representing around 13% of the palm oil produced in the country – were already RSPO-certified, while another 24 companies are currently in the process of obtaining this certification.

The goal for 2021 is to have 50% of the anchor companies from the palm-growing nuclei have their production certified in terms of sustainability standards.

The environmental management vision of the business has been strengthened, particularly with the aim of reducing dependence on chemical insecticides, thus minimizing risks to people and wildlife and reducing environmental pollution, especially that of water sources.

In the context of this effort, Cenipalma’s work with the Pests and Diseases Program, which promotes sustainable oil-palm agriculture, stands out; this work includes conducting research aimed at taking advantage of the biodiversity of palm tree ecosystems, promoting the preservation of native trees in the plantations, increasing the number of nectar plants that feed beneficial insects, which in turn contribute to their survival, so they may serve as biological pest controllers.