Palm oil sector in Colombia

Statistics and overview of the value chain - September 2024

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Overview of Colombian palm oil sector

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Colombian palm oil sector

- Colombia is the **fourth largest producer of palm oil** in the world and the first in the Americas (Fedepalma, 2023).
- Colombia has more than **596 thousand hectares** cultivated with palm oil and **7,550 producers**. According to Fedepalma, 191,000 jobs depend directly or indirectly on the palm oil sector, that correspond to 82% of which are formal jobs.
- **75% of palm oil sector is represented by small-scale producers**, that is, with less than 20 hectares, although on average the small ones have 8.6 hectares (Agrinet, 2023).
- The oil palm industry has grown over the last decade and has become one of the pillars of the country's agribusiness, accounting for **7% of the country's agricultural GDP**.

Social aspect:

- **Women represent 31% of oil palm producers**. Women also count for more than 14% of direct employment generated by the palm oil sector (Agrinet, 2023).
- Palm oil production offers many job opportunities, **especially in rural areas** (IUCN, 2023).
- Historically, palm oil production has been linked to labour exploitation, but steps ahead have been made in Colombia, especially to differentiate Colombian palm oil from that of other origins.
- More than **60% of palm growers are over 40 years old**; this will represent a generational replacement challenge for the sector.

Towards a sustainable Colombian palm oil sector

- Traditionally, production of palm oil has been connected to the deforestation issue in Colombia; as palm oil's promising economic value pushed the expansion of cultivated areas.
- In 2017, the Colombian government and palm oil sector **committed to a Zero Deforestation Agreement** (Solidaridad, 2020).
- Colombia now leads the Latin American market of sustainable palm oil: in 2020, **28%** of the Colombian palm oil production volume **was certified as sustainable** (Brounen et al., 2020).
- Most certified palm oil comes from the **northern and eastern areas** of the country, and the majority of all certified volume was exported to Europe over the past years (IUCN, 2023).

Certifications in Colombia for palm oil sector

of the **28%** of sustainable palm oil production

Main certification organisations:

RSPO (Roundtable on Sustainable Palm Oil)

- 26% of the companies are RSPO certified
- RSPO gap analysis between RSPO & EUDR

ISSC (International Sustainability and Carbon Certification)

- 25% of the companies are ISSC certified

Rainforest Alliance

- 6% of the companies were RA certified in 2020 – since decreased (Rainforest Alliance 2021)

Other organisations:

Fair Trade

USDA Organic

APSColombia: a voluntary verification mechanism that establish index and traceability tools part of the Colombian strategy to achieve 100% of sustainable palm oil production in 2030 (Fedepalma, 2022).

Source: (Brounen et al., 2020)

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Production statistics

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Palm oil production process

Plantations

Transportation

Mills

20-23% of the fruit bunch are empty and are discarded.

Sterilisation

Clean fruits

Division

Purification

17-23% per bunch

Crude palm oil (CPO)

Diluted oil

Digestion

Pressing

Nuts

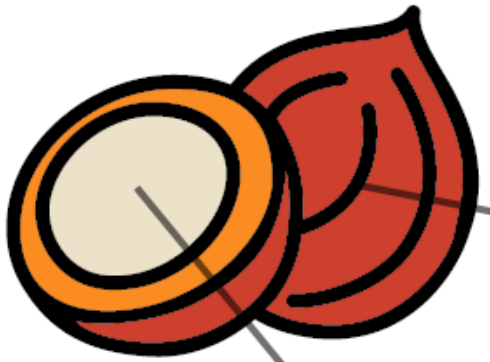
Cracking

Palm kernel

Crushing

6-8% per bunch

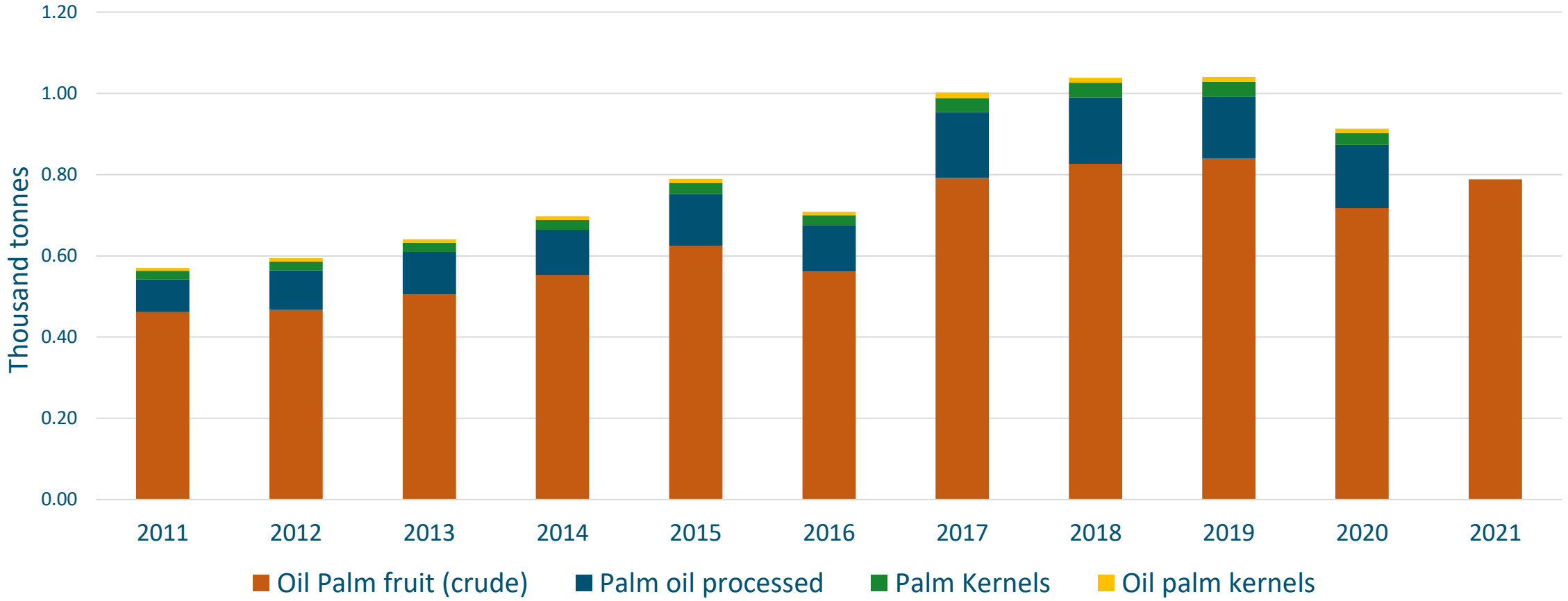
Crude palm kernel oil (CPKO)



From the fruit red palm oil is extracted

From the seed palm kernel oil is extracted

Total annual Colombian production:



Source: FAO Stat 2021

Main oil palm cultivation areas in Colombia

Northern area:

- 283 cultivable kha*
- 279 planted kha
- 97 municipalities involved in palm oil cultivation

Central area:

- 492 cultivable kha
- 242 planted kha
- 26 municipalities involved in palm oil cultivation

Eastern area:

- 360 cultivable kha
- 164 planted kha
- 15 municipalities involved in palm oil cultivation

Southwestern area:

- 36 cultivable kha
- 35 planted kha
- 24 municipalities involved in palm oil cultivation

*Kha = Thousand hectares

Source: Fedepalma, 2020

Palm oil growing regions in Colombia

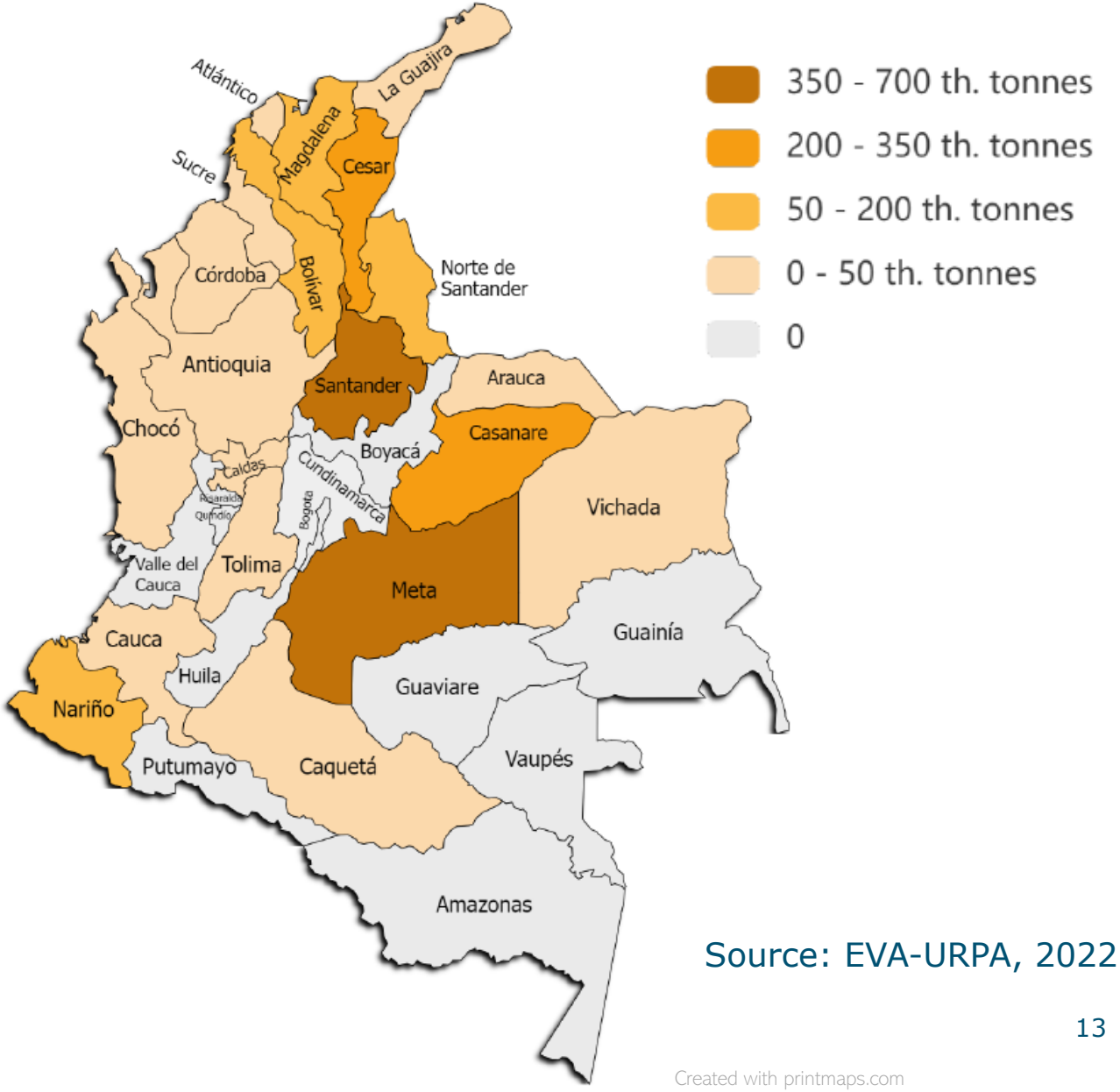
- In 2019 **96,3%** of the net area planted with oil palm is distributed in **nine departments:** Meta (28.5%), Santander (44.2%), Cesar (15.3%), Magdalena (25.9%), Casanare (10.5%), Bolívar (16.7%), Norte de Santander (4.6%), Nariño (8.4%), Antioquia (1.0%).
- The remaining 6.4% is in the departments of Vichada, Cundinamarca, Córdoba, La Guajira, Sucre, Cauca, Atlántico, Caquetá, Arauca, Caldas, Chocó, and Tolima.

Source: Fedepalma, 2019

Created with printmaps.com

Palm oil production in 2022 in thousand tonnes:

- Palm oil sector is the agricultural sector that has grown the most in the last decade in the country.
- Thanks to the climate, good prices and land renovation, 2023 production is expected to reach 1.8 million tons of Crude Palm oil (Agronet, 2023)
- Palm oil production consolidates growth compared to previous years also in the first semester of 2023 (Fedepalma, 2023)

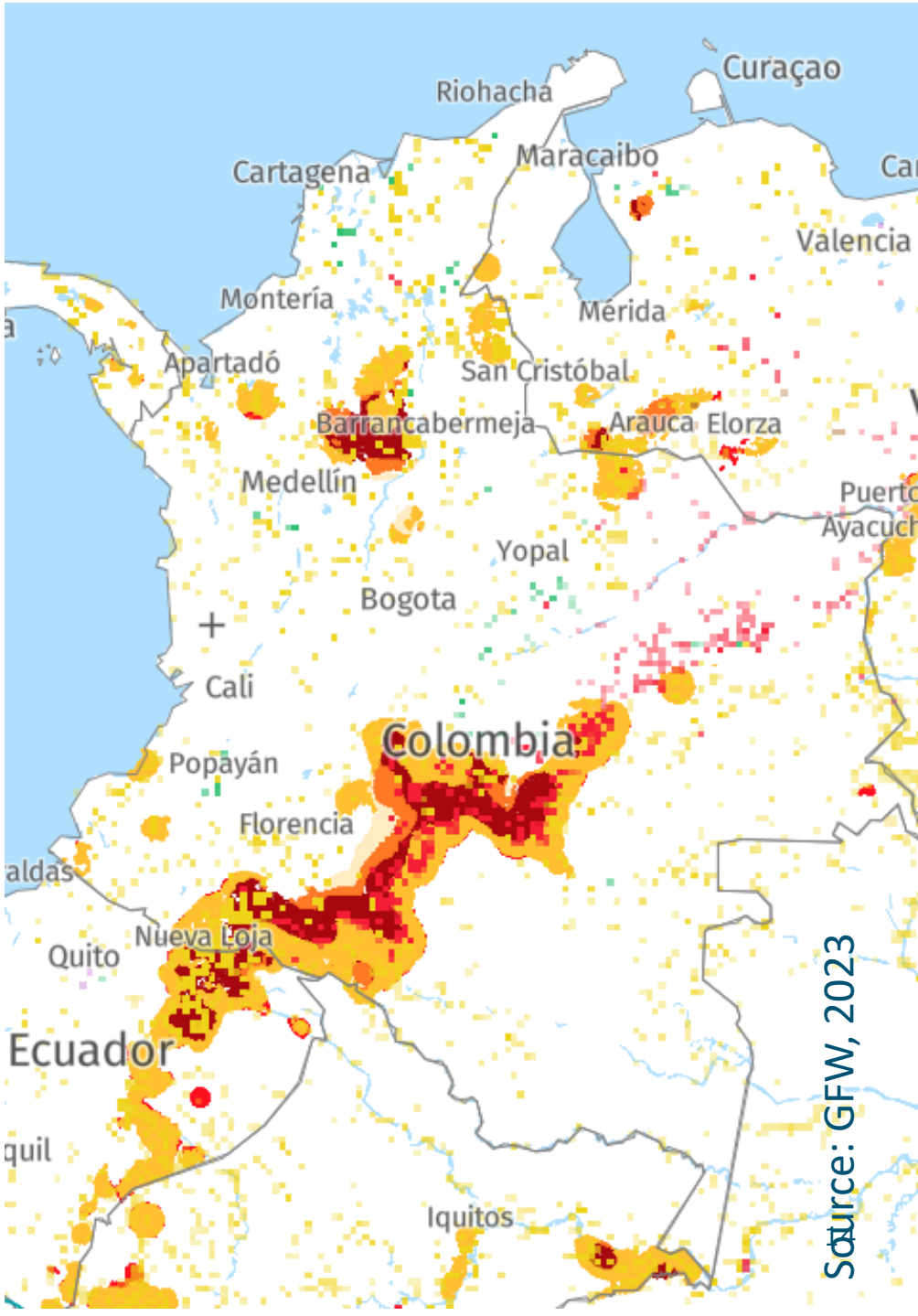


Source: EVA-URPA, 2022

Created with printmaps.com

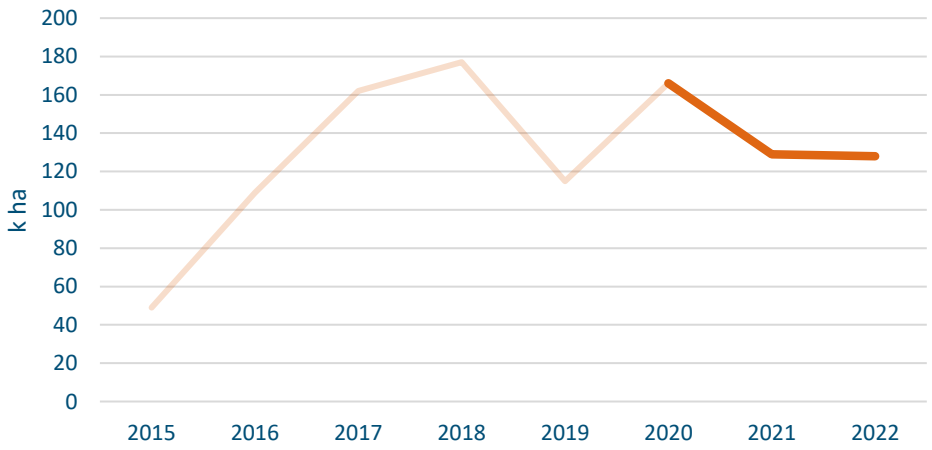
Palm oil cultivation & forest intersection in Colombia:

- The map shows the tree cover loss by dominant driver from 2019 - 2022
  - Commodity driven deforestation (Palm oil included)
  - Shifting agriculture
  - Forestry
  - Wildfire
  - Urbanization:



Forest & landcover change in Colombia

PRIMARY FOREST LOSS IN COLOMBIA



- From 2011 to 2022, Colombia lost 1.32 M ha of humid primary forest, making up 43% of its total tree cover loss in the same time period.

	Region	Tree cover loss
1	Caquetá	486 kha
2	Meta	390 kha
3	Antioquia	310 kha
4	Guaviare	276 kha
5	Putumayo	230 kha

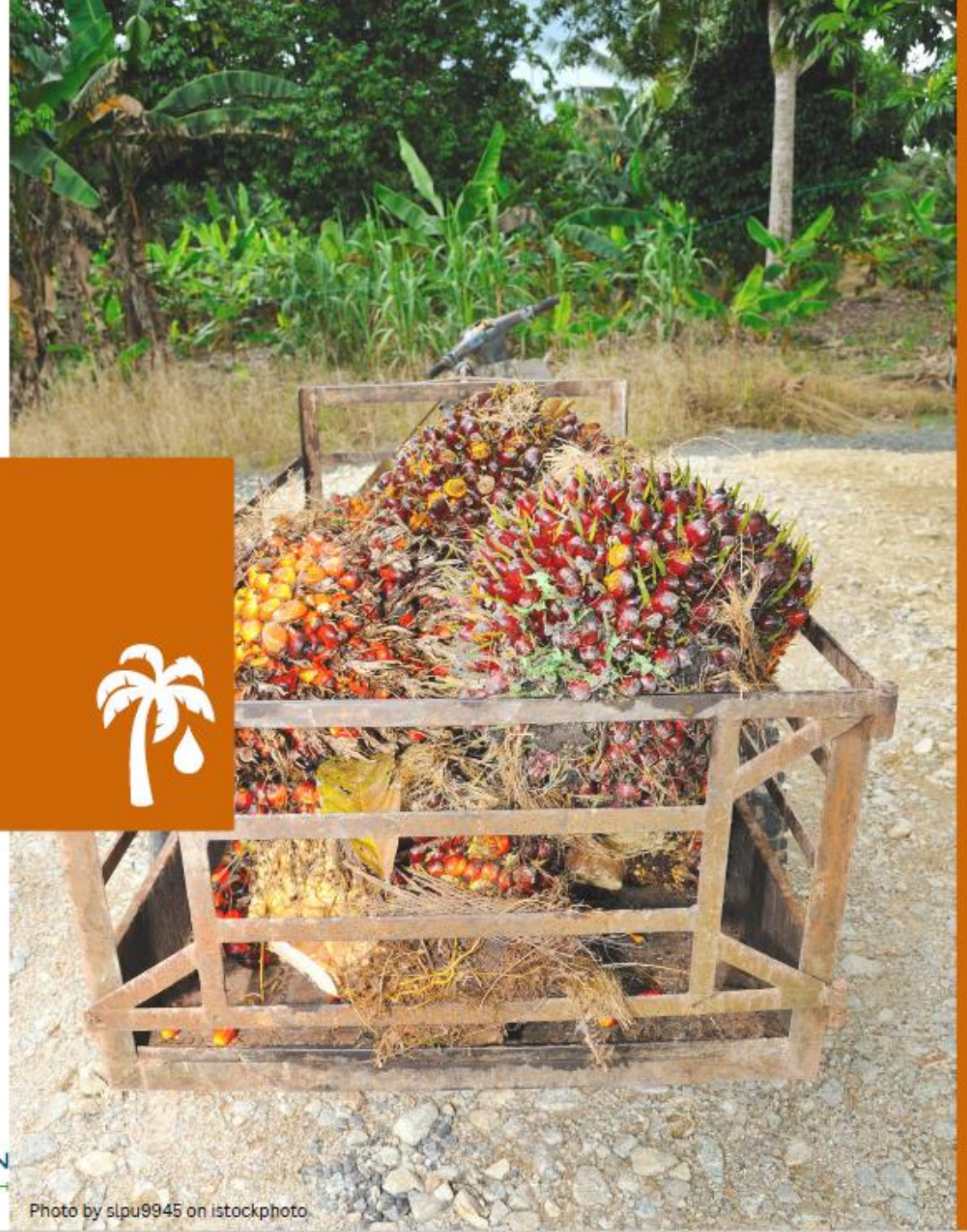
* Rice production

- Top 5 regions responsible for 55% of all tree cover loss between 2011 and 2022.
- In Colombia, Meta is the department with the most area dedicated to oil palm (31%); Antioquia and Caquetá have some cultivations but not significant. The other departments listed above are mainly for livestock farming, hence with higher deforestation risk.

Source: GFW, 2023

The Forest and Carbon Monitoring System (SMByC) by IDEAM

- The Forest and Carbon Monitoring System (SMByC) by IDEAM (Colombian Institute of Hydrology, Meteorology and Environmental Studies) is a tool designed to monitor and protect Colombian ecosystems from deforestation.
- By utilising high-resolution images from Sentinel, Landsat, and Planet Scope satellites, SMByC can pinpoint areas affected by deforestation and provide detailed multi-temporal analyses.
- GFW excels in tracking global trends, IDEAM's SMByC is more precise for national-level assessments, making it invaluable for understanding specific risks and deforestation patterns in Colombia. Minister of the Environment, 2021



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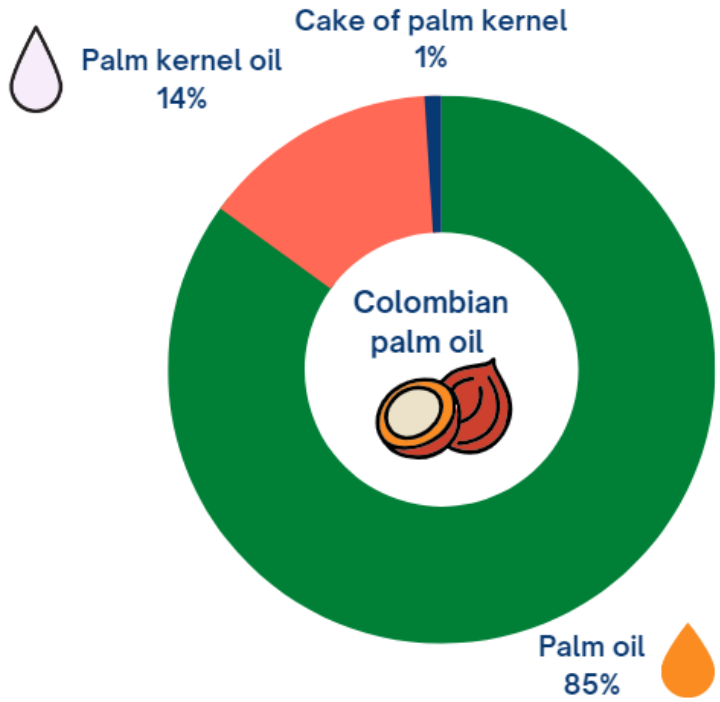
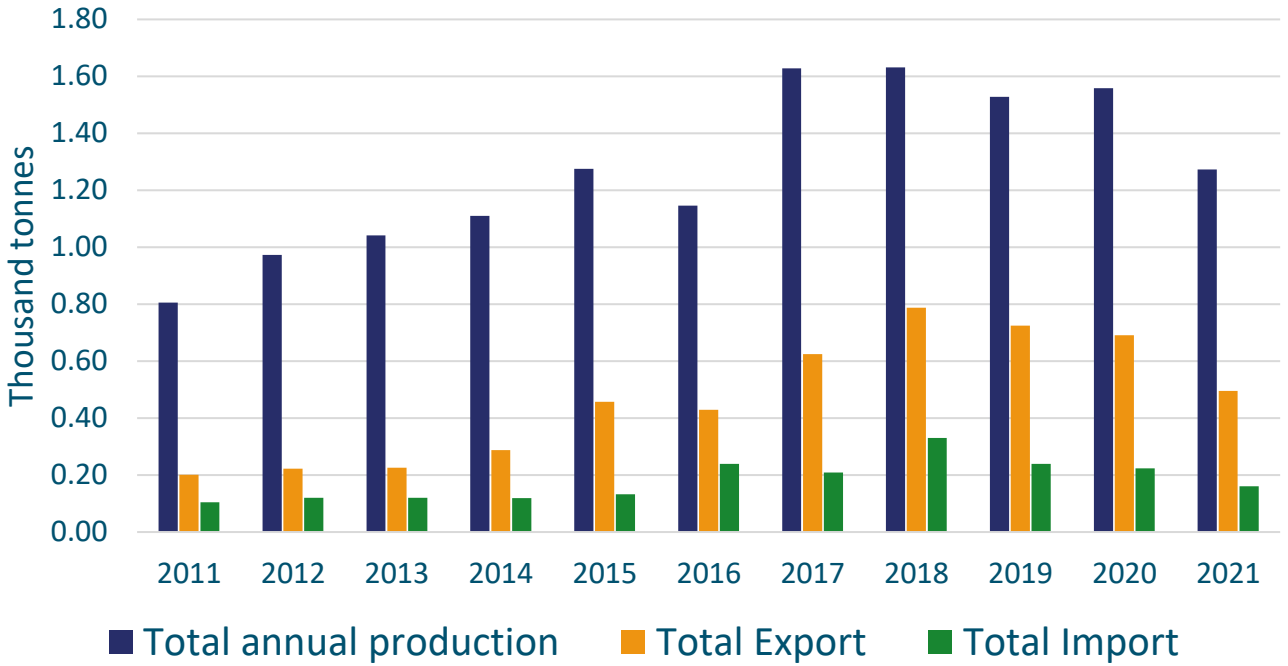
Exports

Total annual export Colombia

- Which products are exported from Colombia?

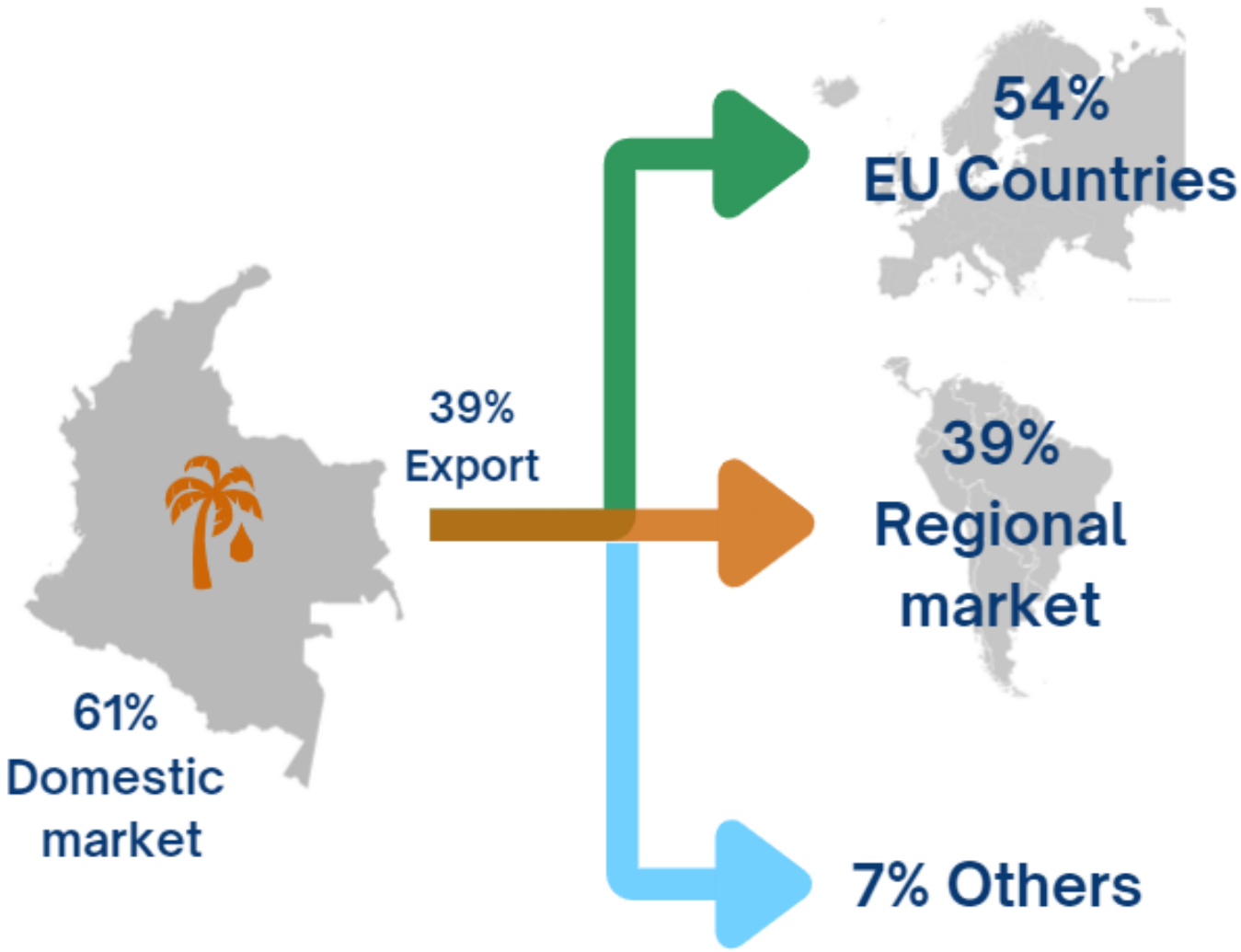


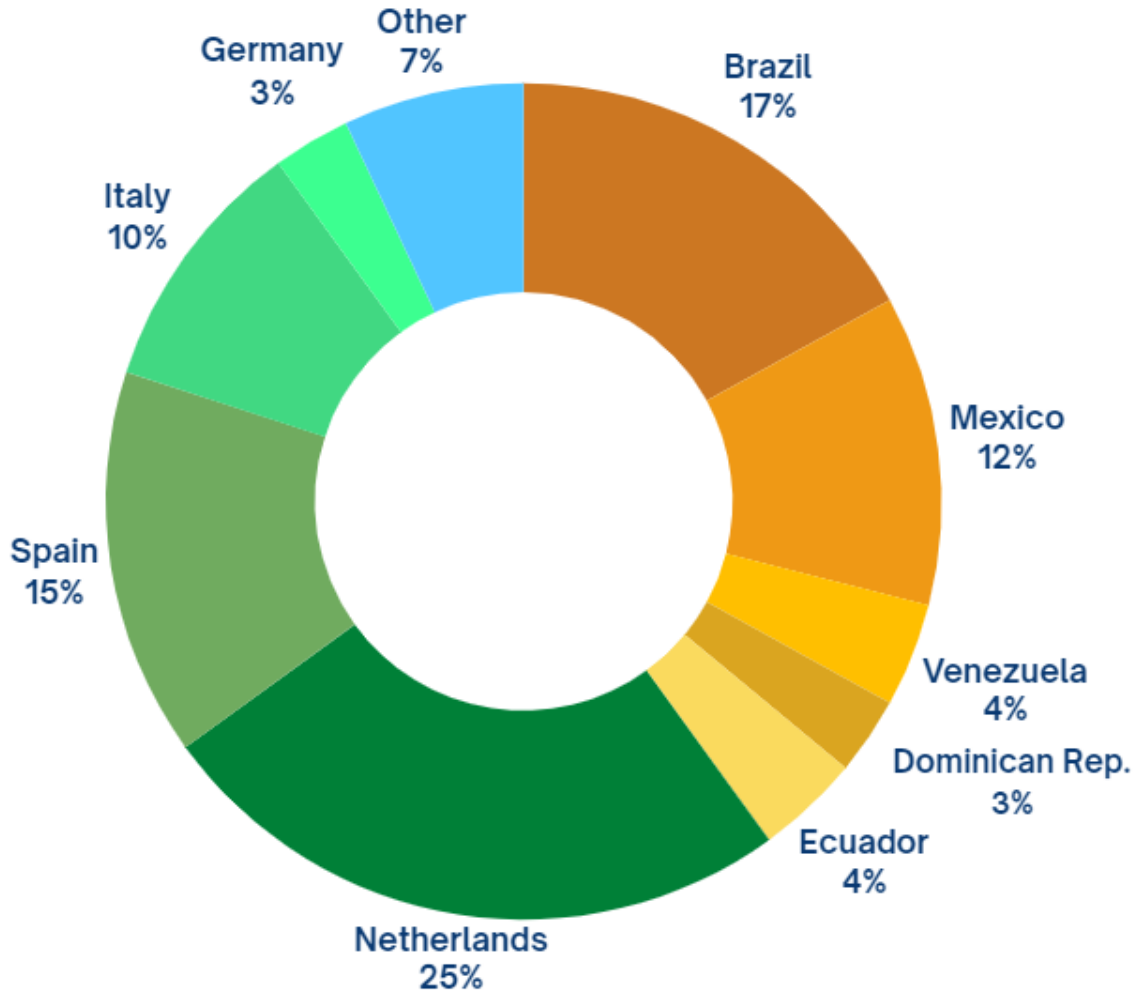


- Exports have increased over the years to account for about 40-45% of Colombia's total palm oil production.
- Imports of palm oil are about 13-14% and come mainly from: Indonesia, Ecuador, Perú and Malaysia.

Source: FAO STAT, 2021

Colombian exports* in 2020



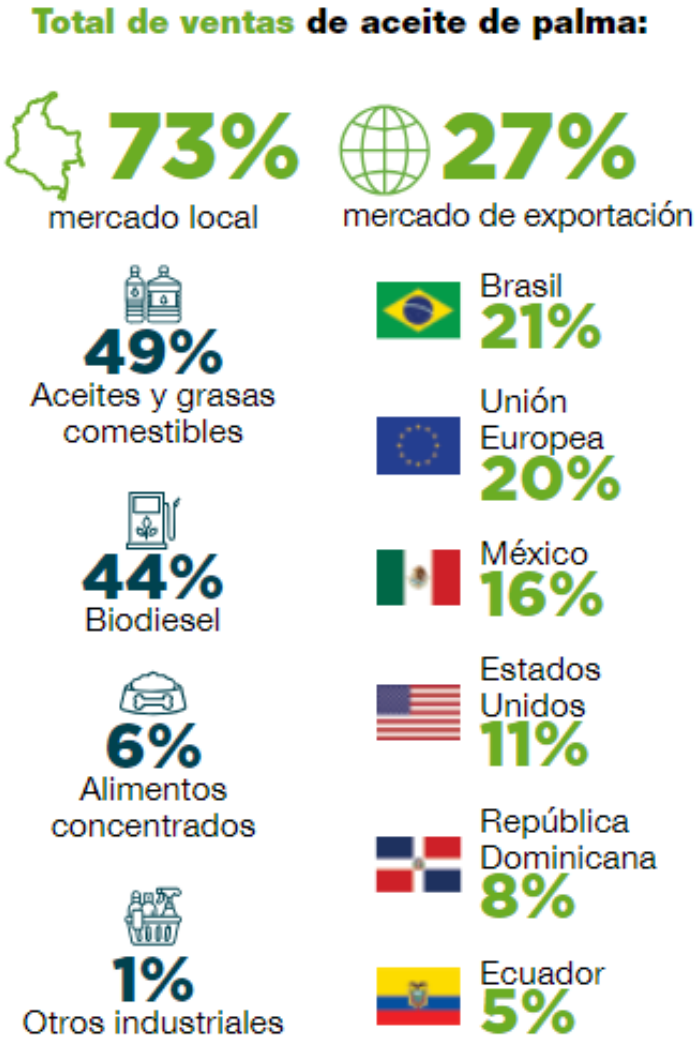


* Of palm oil, palm kernel oil, cake of palm kernel and palm kernels

Source: FAO, 2020

Colombian palm oil export to the EU:

- **Colombian exports dropped considerably in 2023**, from 39% to 27%. Exports to the European Union decreased by 20%. Attributed to exporters seeking "easier" and closer markets, such as Brazil and Mexico.
- Europe is the largest consumer of palm oil in the world, importing over 45% of the global production (Foresight, 2022).
- Malaysia, Indonesia, Thailand, and Nigeria are other major palm oil producers and exporters worldwide.



Source: Fedepalma 2023

How does the EU use the imported palm oil?

53%

- **Biodiesel:** used for cars and trucks

12%

- **Heating and energy:** generation of electricity and heating

35%

- **Food:** baked goods (cookies, commercial cake, doughnuts..), candy, cereals, fast food, ice cream, margarine, spreads (chocolate, peanut butter..), potato crips, salad dressings,..
- **Feed:** animal nutrition
- **Industry:** detergents, cosmetics, cleaners, pharmaceutical, lubricants

Source: (Transport&Environment, 2019)

Focus on the Netherlands – Import & Export in 2020

Main palm oil source countries for the Netherlands

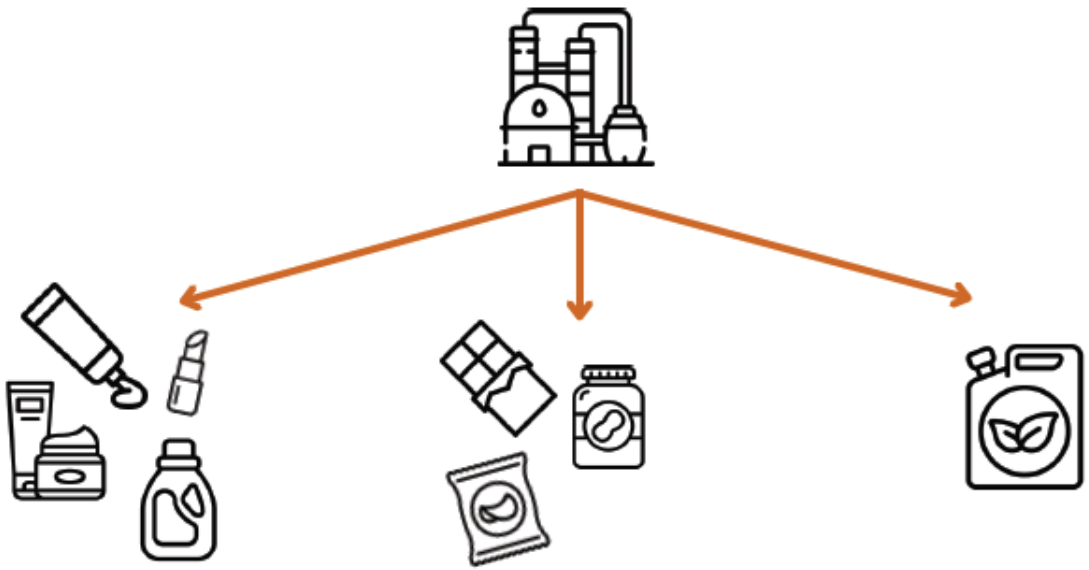
1. Indonesia 31%
2. Malaysia 16%
3. Papua New Guinea 8.5%
4. Honduras 5%
5. Germany 5%
6. Colombia 4.4%
7. Guatemala 2.6%
8. Slovenia 0.6%
9. Costa Rica 0.6%

Other

5. 28 th. tonnes imported

63% for domestic use

Processing/Refining



1.9 th. tonnes exported

Main countries where the Netherlands exports palm oil

1. Germany 24%
2. Belgium 23%
3. UK 9%
4. France 6%
5. Poland 5%
6. Spain 2%
7. Ireland 2%
8. Denmark 1.5%
9. Austria 1%

Other

Source: FAO, 2020

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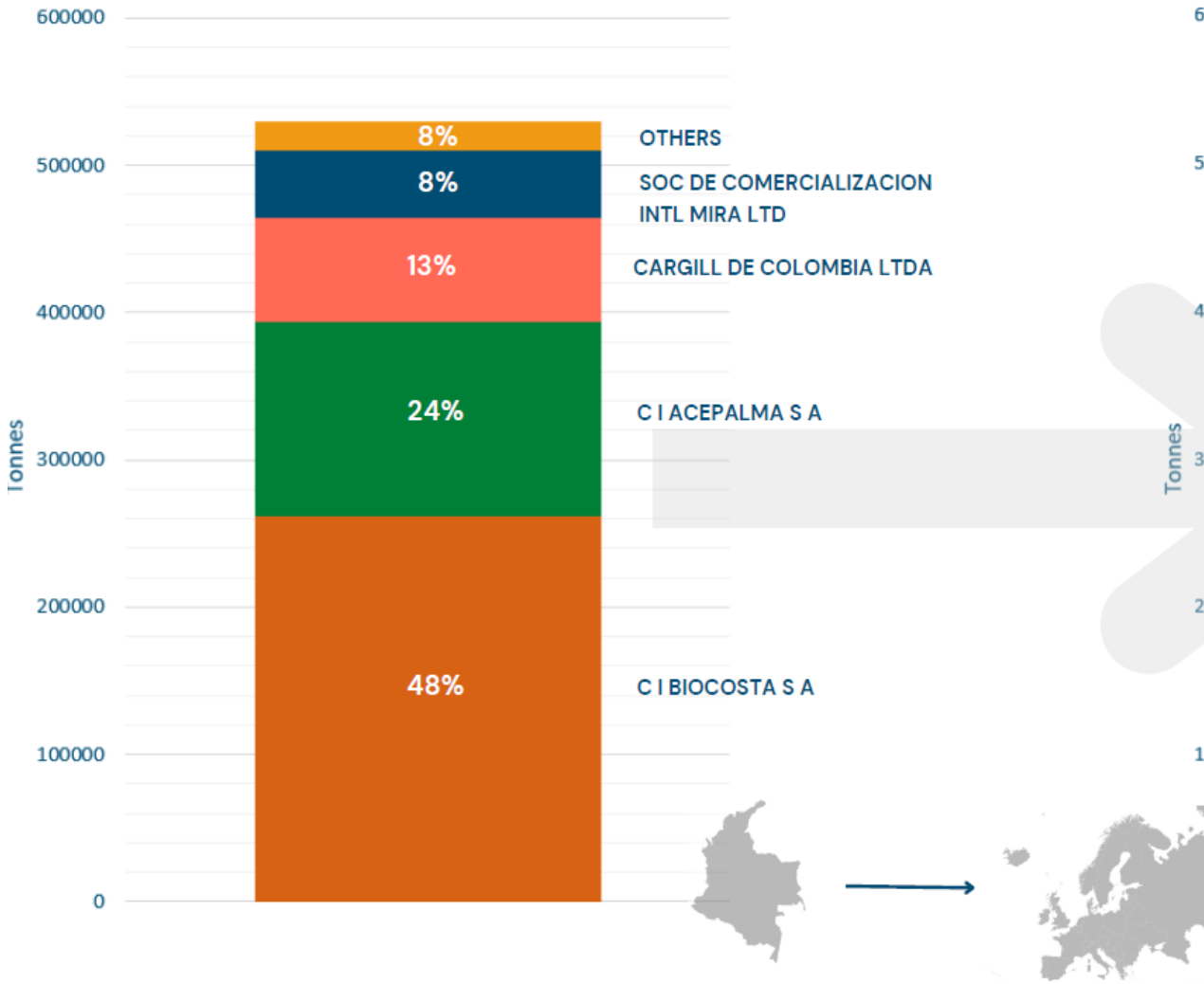
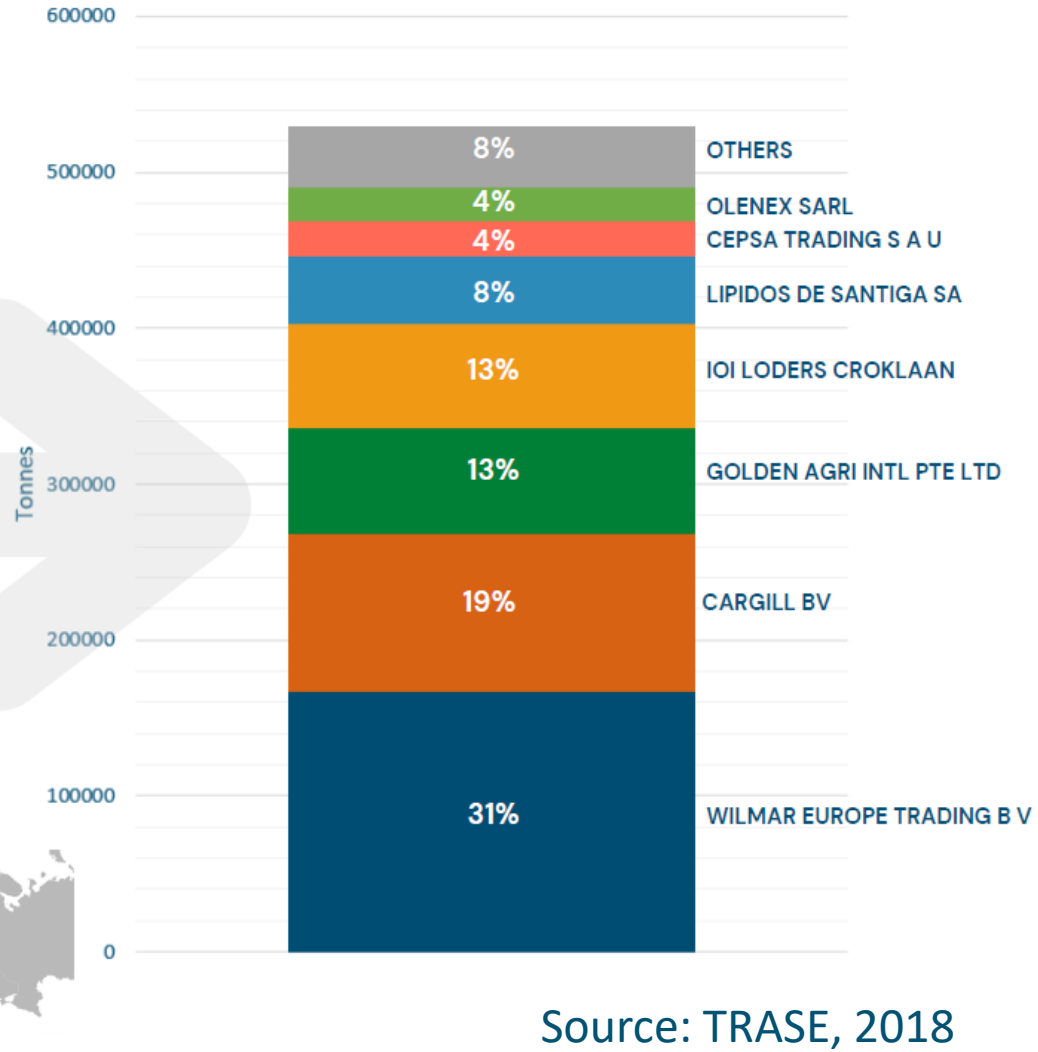
Major trade actors from Colombia to EU

Major palm oil exporters



Major palm oil importers



Source: TRASE, 2018

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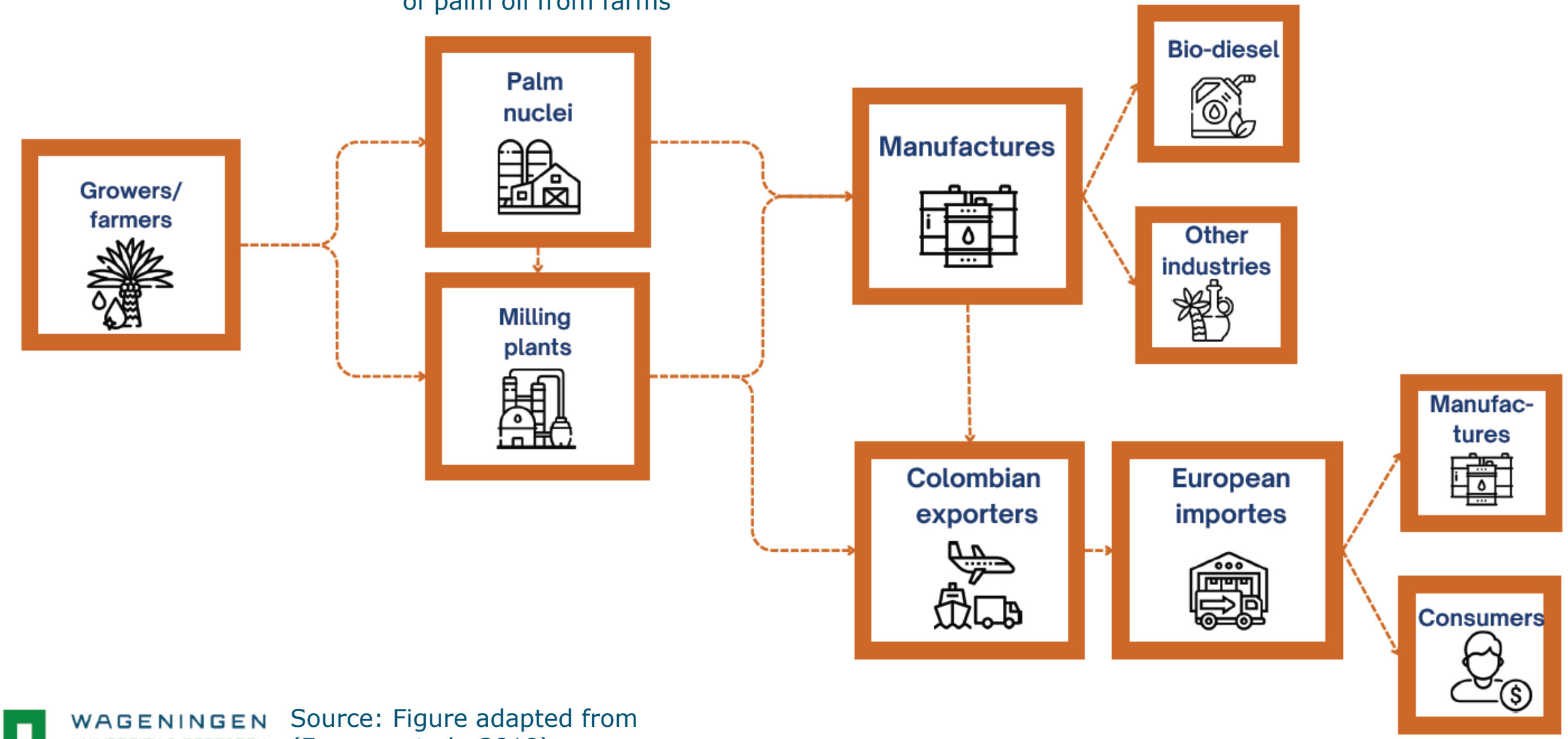
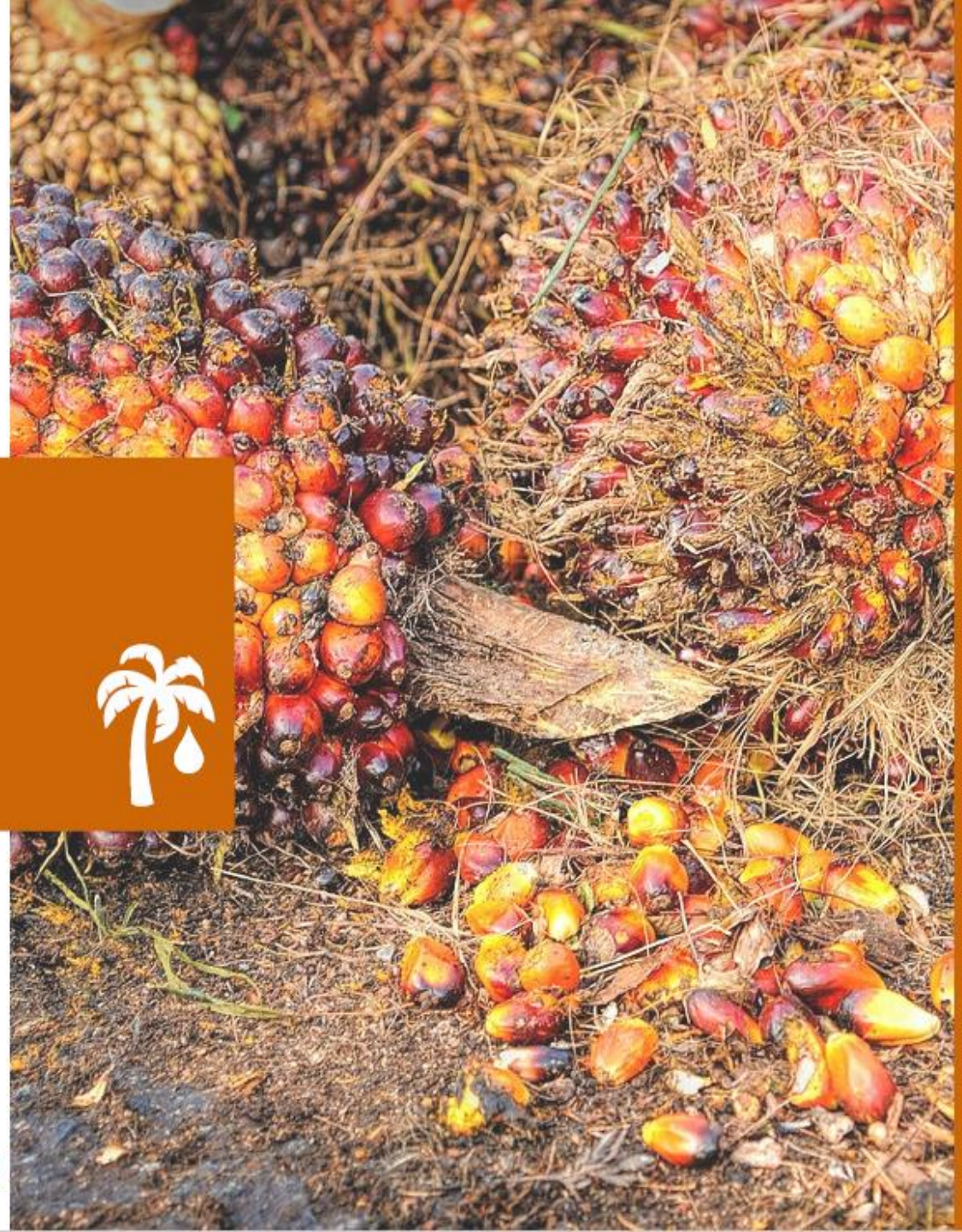
Photo by Tanes Ngamsom on istockphoto

Value chain

Palm nuclei can have their own milling plants or operate only as collectors of palm oil from farms



Source: Figure adapted from (Furumo et al., 2019)



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Relevant stakeholders

Palm oil cultivation:

Key actors:

- **Input providers** of seeds, seedlings, agrochemicals
- **Producers and farm workers**: actual daily farm work, from planting to harvesting
- **Palm nuclei** (nucleos palmeros): Composed by extraction plants and associated producers: provide extension services to growers

Other supporting actors:

- ICA (Instituto Colombiano Agropecuario): Crop inspection, monitoring and control
- International certification (Slide 24)

Processing:

Key actors:

- Extraction plants: buy raw fruits from suppliers, and process them to obtain crude palm oil, crude palm kernel oil and palm kernel cake.
- Palm nuclei: composed by extraction plants and associated producers

Other supporting actors:

- Fedepalma: Association of palm producers that allows for strategic alliances, business support, and agro-industrial growth
- Cenipalma: technical research on the crop, diseases, good agricultural practices; they provide trainings and knowledge to palm nuclei
- Agrosavia and SENA: research and extension services

Trade & Export

Key actors:

- Traders of crude palm oil or industrialized products
- Exporting companies
- Logistics agents
- Transport providers

Other supporting actors:

- Colombia Productiva (by Ministry of Commerce): Promote and strengthen business capabilities.
- ProColombia: export support
- Ministry of Commerce: VUCE (foreign trade designated desk)

Import to EU

Key actors:

- Importers

Other supporting actors:

- Directorate-General for Trade (EC): facilitates commercial agreements between countries
- FOSFA International (Federation of oils, seeds and fats associations Ltd): international trade organisation that facilitates and supports the global trading and shipping of vegetable and animal oils and fats, oilseeds, and their derivatives

Industrialisation & consumption

Key actors:

- Manufactures of products with palm oil (refined oil) as input for: Food, Cosmetics, Biofuels, etc.
- Wholesale distributors
- Consumers

Photo by slpu9945 on istockphoto

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Policy context

Key definitions in Colombian policy

- **Deforestation:** Definitive elimination of forest cover for other uses. Example: When the forest is cleared for agricultural or livestock production (Ministry of Environment).
- **Natural Forest:** Land occupied mainly by trees that may contain shrubs, palms, bamboo, grasses and lianas, in which tree cover predominates with a **minimum canopy density of 30%,** a minimum in situ canopy height of 5 meters at the time of identification and a minimum **area of one hectare**. Tree cover of commercial forest plantations, palm plantations and trees planted for agricultural production are excluded (IDEAM).
- **Agroforestry System:** A form of production that combines forest species with agricultural species and/or livestock production areas, with a spatial-temporal distribution of trees in the production system that clearly indicates their introduction as a forestry component (Ministry of Agriculture).

Definitions used in the EU deforestation regulation

- **Deforestation**: conversion of forest to agricultural use (human-induced or not)
- **Forest**: land spanning more than **0,5 hectares with trees** higher than 5 metres and a canopy **cover of more than 10%** or trees able to reach those thresholds in situ, **excluding land that is predominantly under agricultural or urban land use**
- **Agricultural use:** use of land for the purpose of agriculture, including for agricultural plantations, and includes livestock and set-aside agricultural areas;
- **Agricultural plantations:** tree stands in agricultural production systems, such as fruit tree plantations, oil palm plantations, olive orchards and agroforestry systems when crops are grown under tree cover. It includes all plantations of the relevant commodities other than wood. Agricultural plantations are excluded from the definition of 'forest';
- **Deforestation free:** (a) that the relevant products contain, have been fed with or have been made using, commodities that, were produced on land that has not been subject to deforestation after 31 December 2020, and (b) in case of relevant products that contain or have been made using wood, that the wood has been harvested from the forest without inducing forest degradation after 31 December 2020.

(Council of the European Union 2022)

Colombian regulatory framework:

Key public actors:

- ICA: production permit, phytosanitary regulations and controls.
- Agencia Desarrollo Rural (ADR, by Ministry of Agriculture): Agricultural and rural development policy.
- Ministry of labour: Regulation of working conditions in agricultural activities, ensuring that workers in the sector have a safe and fair working environment.
- Ministry of Environment: Protection and conservation of the environment in relation to agricultural production. Establishes decrees and regulations for the sustainable management of natural resources.
- Ministry of Trade: Promotion and regulation of trade in agricultural products nationally and internationally. This involves participation in the negotiation of trade agreements.
- The Chamber of Commerce: Issuance of permits and commercial registrations required for agricultural activities.

Colombian regulatory framework:

Key private actors:

- **Palm nuclei** (núcleos palmeros): the members of these organizations are extraction plants (plantas de beneficio o plantas extractoras) and palm producers. Usually, palm nuclei unite members by geographical area. Palm nuclei are the point of trade for raw palm fruits.

- **Fedepalma**: National Federation of oil palm growers. Fedepalma includes small, medium and large oil palm growers. Its main objective is to represent the interests of palm growers, supporting the in their work, as well as the increasing the competitiveness of the Colombian oil palm agroindustry.

- **Cenipalma** is the oil palm research center corporation associated with Fedepalma. It's a national non-profit scientific and technical corporation focused on developing, appropriating, transferring, training and accompanying the implementation and adoption of technologies to meet the opportunities and challenges of a sustainable Colombian palm cultivation.

European regulatory framework:

Key actors:

- European Commission (EC)
    - Directorate General for Health and Food Safety: policy, legislation and implementation of food safety measures, including pesticides- and organic (if relevant) regulations (CBI, 2021)
    - Directorate General for the Environment: EUDR
    - EU Delegation to Colombia
- National Customs Authorities: inspection of goods, documents (e.g. declaration of conformity) and means of transport to ensure compliance with customs, trade and security regulations.
- European Food Safety Agency – EFSA: Technical and scientific role in food safety risk assessment.

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Photo by slpu9945 on istockphoto

Hotspots for traceability

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Hotspots & risks:

- **Production**
- Geolocation of palm crops is provided voluntarily by producers. National efforts needed to extend coverage.
- **Market**
- Palm oil origin is easily substitutable and has many competitors (Malaysia, Indonesia, etc.)
- The competition is mainly on price; for the European market, it is on the possibility of conforming to regulations (EURD).
- Since most exports to the EU are crude oil, there are fewer steps to track. However, it is possible that more value-added products in Colombia would be promoted, and in that case, traceability requirements and costs would also increase.

Hotspots & risks:

- **Certification**
- The certification process is expensive.
- Non-certified farmers are complicated to trace.
- it challenging to assess working conditions and respect for workers' rights.
- Colombian certification standards need to be revised to meet EUDR obligations.
- **Bottlenecks in the palm oil system**
- Lack of sharing of data relevant to traceability, e.g. the current geolocation database of palm oil farms (Catastro Palmero) is only managed by Fedepalma and cannot be accessed by other users.

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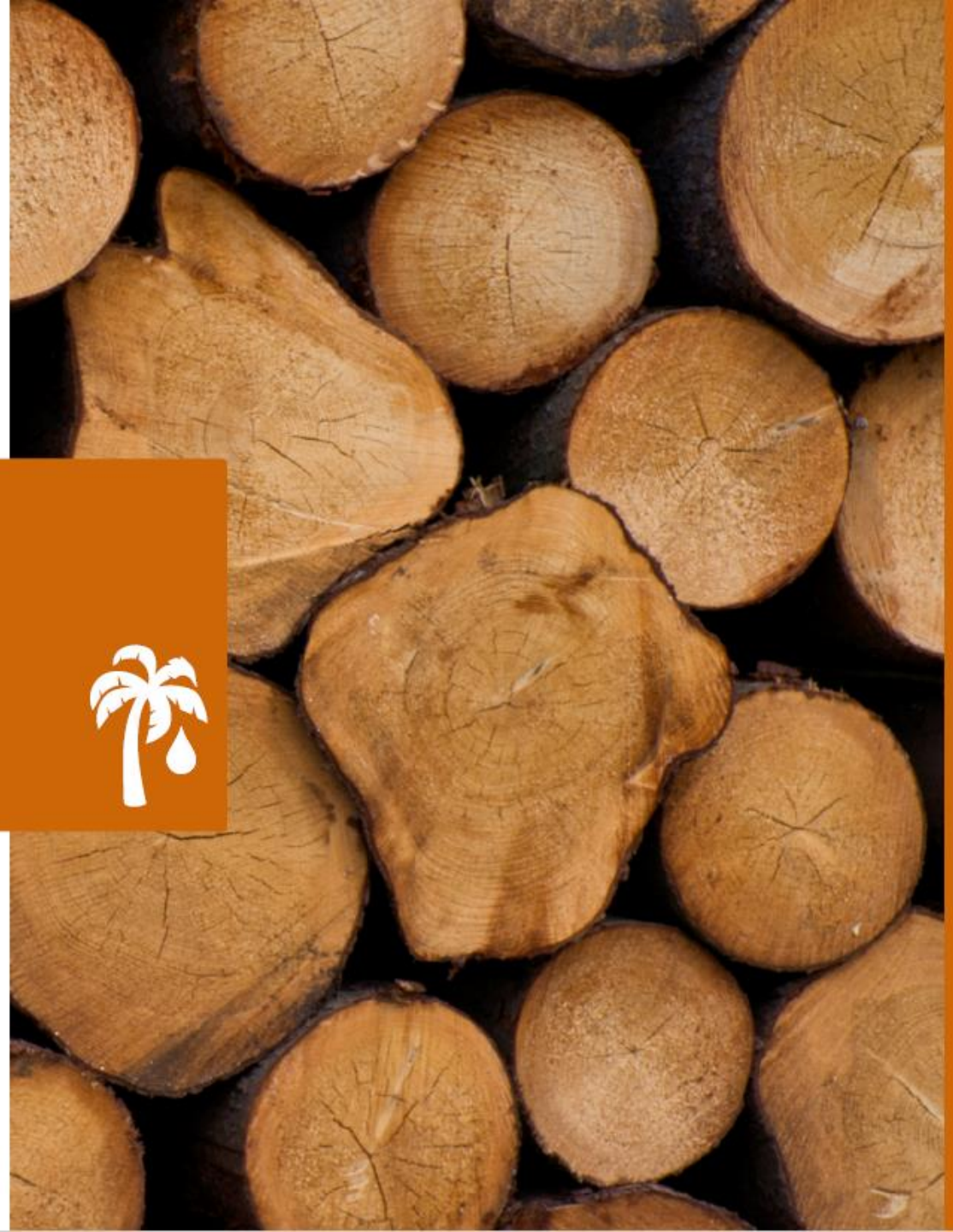

Deforestation-free regulation (EUDR)

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Regulation lays down rules regarding the placing and making available on the Union market as well as the export from the Union of relevant products that **contain**, **have been fed** with or have been made **using relevant** commodities.

Cattle, cocoa, coffee, oil palm, rubber, soya and wood

With the aim

a) minimising the Union's contribution to deforestation and forest degradation worldwide, thereby contributing to a reduction in global deforestation;
b) reducing the Union's contribution to greenhouse gas emissions and global biodiversity loss.

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Regulation (EU) 2023/1115 of the European Parliament and of the Council of 31 May 2023 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010

What are the key elements of the EUDR?

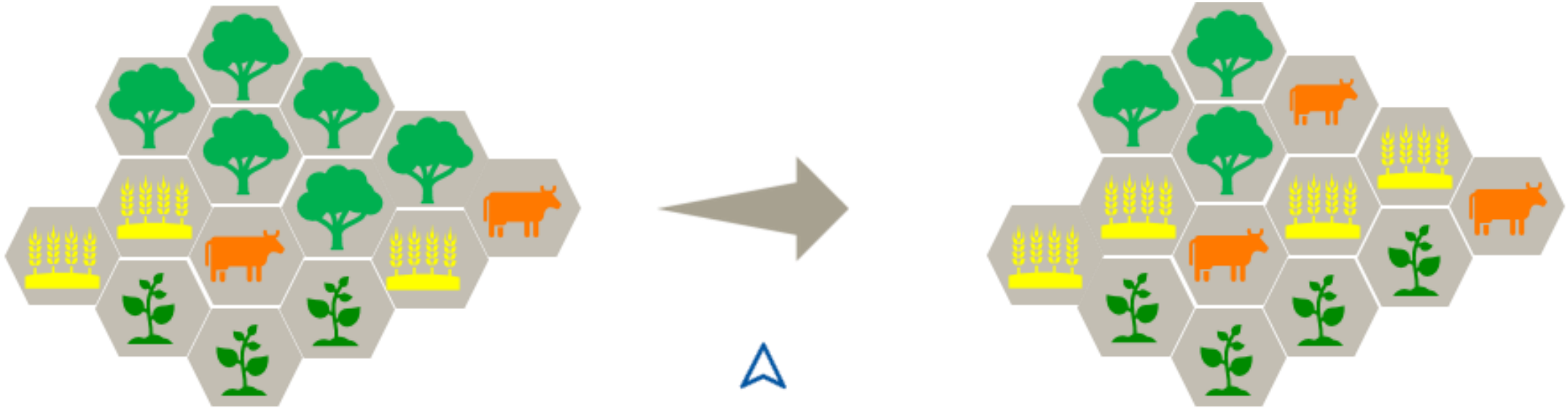
Benchmarking system	• Assigns to third countries or parts of countries a level of risk related to deforestation (low, standard or high)
Cut-off date	• Determines December 31, 2020, for implementing mandatory due diligence rules
Due diligence statements	• Introduces the requirement of tracing the geographic location of each plot of land where the commodity was produced
EU Observatory	• Monitor changes in forest cover while considering human rights and the balance between environmental protection and business interests.

Benchmarking system

- A level of risk would determine the requirements and specific obligations for operators and member states' authorities to carry out inspections and controls
- Risk of deforestation from all 'relevant commodities'
  - low-risk sectors must comply with high-risk due diligence when high-risk sectors are present

- How is the risk determined
  - ✓ Rate of deforestation and degradation
  - ✓ Rate of agricultural expansion
  - ✓ Production trends of commodities
- Level of controls for operators*
  - ✓ 3% standard risk
  - ✓ 9% High risk
  - ✓ 1% Low risk
- Timeline
  - ✓ 29 June 2023, all countries with a standard level of risk
  - ✓ 30 Dec 2024, risk differentiation
  - ✓ 30 June 2025, for SMEs

Cut-off date



December 31, 2020

Agricultural land expansion and forest loss occurring **after** the cut-off date, would be considered deforestation

Due diligence statements for traceability (Art 9)

a. Description (trade name, type of relevant product);

b. Quantity;

c. the country of production and, where relevant, parts thereof;

d. the **geolocation of all plots** of land where the relevant commodities that the relevant product contains, or has been made using, were produced, as well as the date or time range of production;

e. the name, postal address and email address of any business or person **from whom** they have been supplied with the relevant products;

f. the name, postal address and email address of any business, operator or trader **to whom** the relevant products have been supplied;

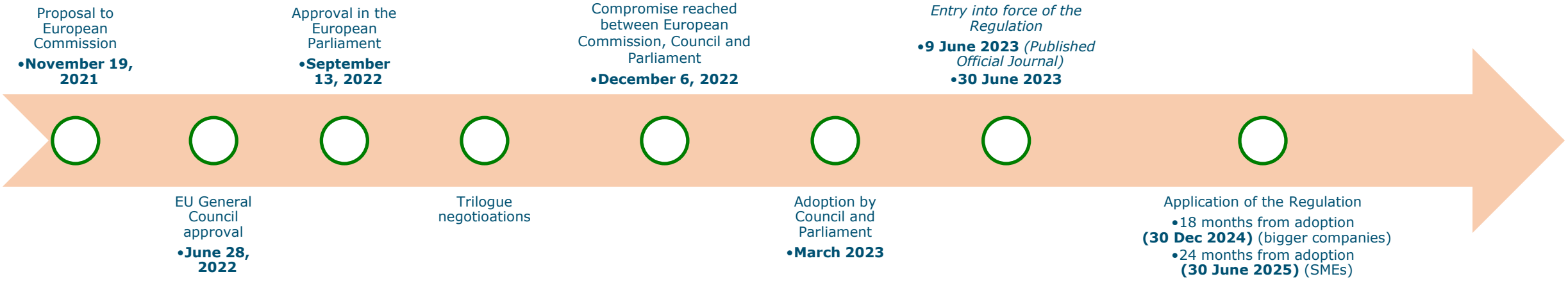
g. adequately conclusive and **verifiable information** that the relevant products are deforestation-free;

h. adequately conclusive and verifiable information that the relevant commodities have been **produced in accordance with the relevant legislation of the country of production**, including any arrangement conferring the right to use the respective area for the purposes of the production of the relevant commodity.

EU observatory

- Launched by the Commission in order to **better monitor changes** in the world's forest cover and related drivers.
- Building on existing monitoring tools, including ***Copernicus* products** and other publicly or privately available sources,
- Should **facilitate access to information** on supply chains for public entities, consumers and businesses,
- Providing **easy-to-understand data** and information linking deforestation, forest degradation and changes in the world's forest cover to Union demand for, and trade in, commodities and products.

Timeline EUDR



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