Final Report 2021
SIFCA

SATELLIGENCE

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SIFCA Final Report 2021 Content

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Executive Summary

Founded in 1964 and headquartered in Côte d'Ivoire, SIFCA is a leading agribusiness group in West Africa. It is active in palm oil, rubber and sugar production with majority stakes operations in Ivory Coast, Ghana, Liberia and Nigeria. In 2016, SIFCA committed to "no deforestation" and implemented the HCV and HCS approach for the development of new industrial plantations. The growing demand for credible proof of deforestation-free supply chains increases the need for both monitoring and engagement on the ground.

Satelligence assists SIFCA since early 2021 by providing a near real-time satellite-based forest cover change alert system using a sensor-independent, integrated approach at 7m pixel size. The system is updated daily with reporting every two weeks.

For this 2021 report, Satelligence provides an overview of the land cover in the area of interest of SIFCA in Côte d'Ivoire and Liberia. The area includes palm oil, rubber and sugarcane operations of the company. Next to the land cover, Satelligence has assessed the historical deforestation in the area of interest from 2000 - 2020.

Overall historical deforestation rates, since 2000, are found to be low for SIFCA operations and surroundings. This coincides with the general trend that deforestation in Côte d'Ivoire is decreasing since 2000. If deforestation is observed, it is mainly in the buffer regions of the concessions and farms.

Introduction

Founded in 1964 and headquartered in Côte d'Ivoire, SIFCA is a leading agribusiness group in West Africa. It is active in palm oil, rubber and sugar production with majority stakes operations in Ivory Coast, Ghana, Liberia and Nigeria.

In 2016, SIFCA committed to "no deforestation" and implemented the HCV and HCS approach for the development of new industrial plantations. The growing demand for credible proof of deforestation-free supply chains increases the need for both monitoring and engagement on the ground.

New satellite technology can help make this process more robust and (cost)efficient, in particular for very large areas. SIFCA wants to support its zero deforestation commitments by setting up a proactive deforestation satellite monitoring system for its palm oil, rubber and sugar operations in Côte d'Ivoire and Liberia.

Satelligence assists SIFCA since early 2021 by providing a near real-time satellite-based forest cover change alert system using a sensor-independent, integrated approach at 7m pixel size. The system is updated daily with reporting every two weeks. The system detects forest cover changes (plantation development, road development, encroachment, fire damage) in concession areas, mangrove areas, WDPA, natural forest, and other areas of special interest.

For this 2021 report, Satelligence provides an overview of the land cover in the area of interest of SIFCA in Côte d'Ivoire and Liberia. The area includes palm oil, rubber and sugarcane operations of the company. Next to the land cover, Satelligence has assessed the historical deforestation in the area of interest from 2000 - 2020.

The results of both the land cover assessment as the historical deforestation are shown in the coming pages, with an overall conclusion in the end.
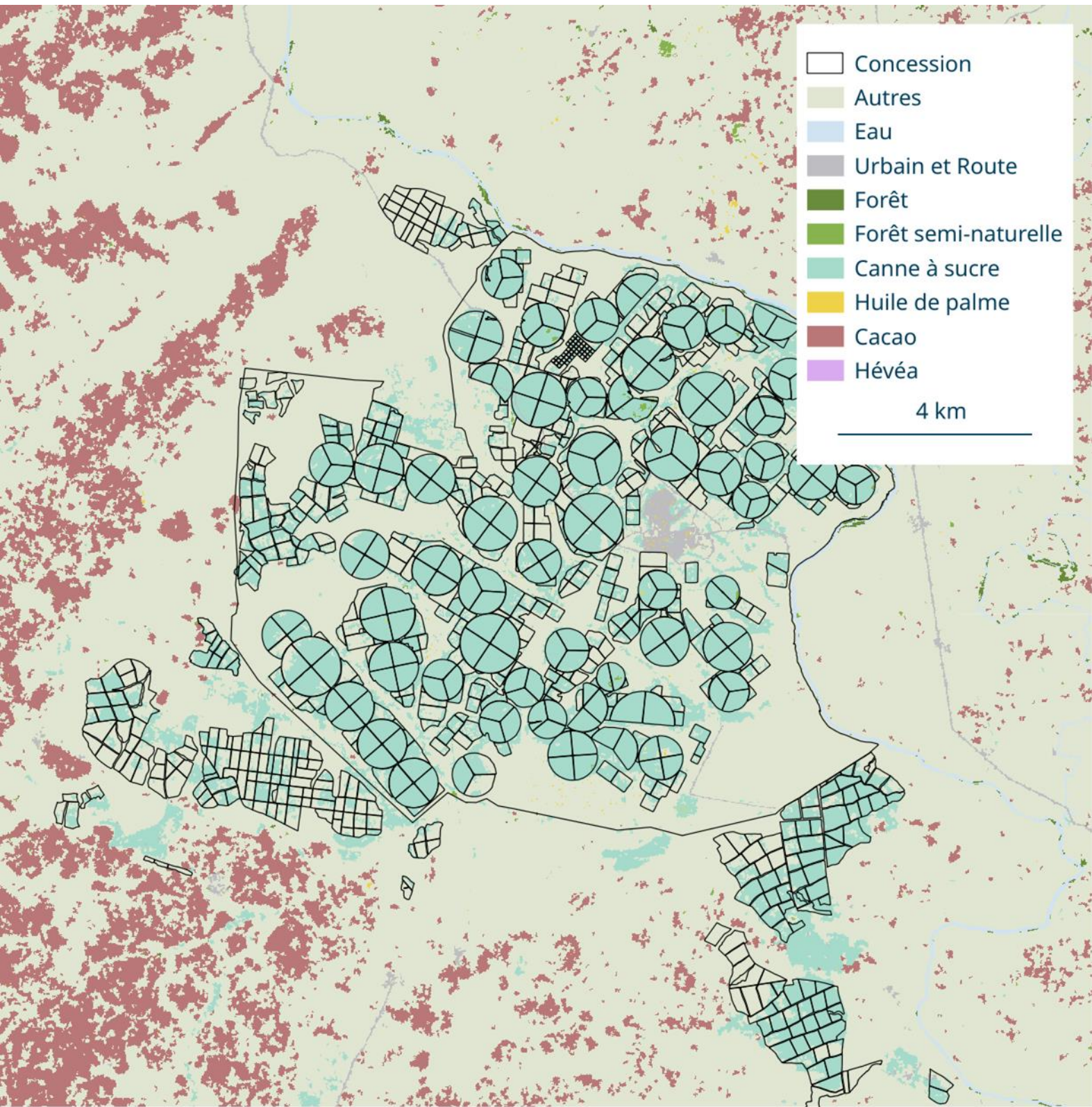
SIFCA Landuse Landcover 2020 Overview
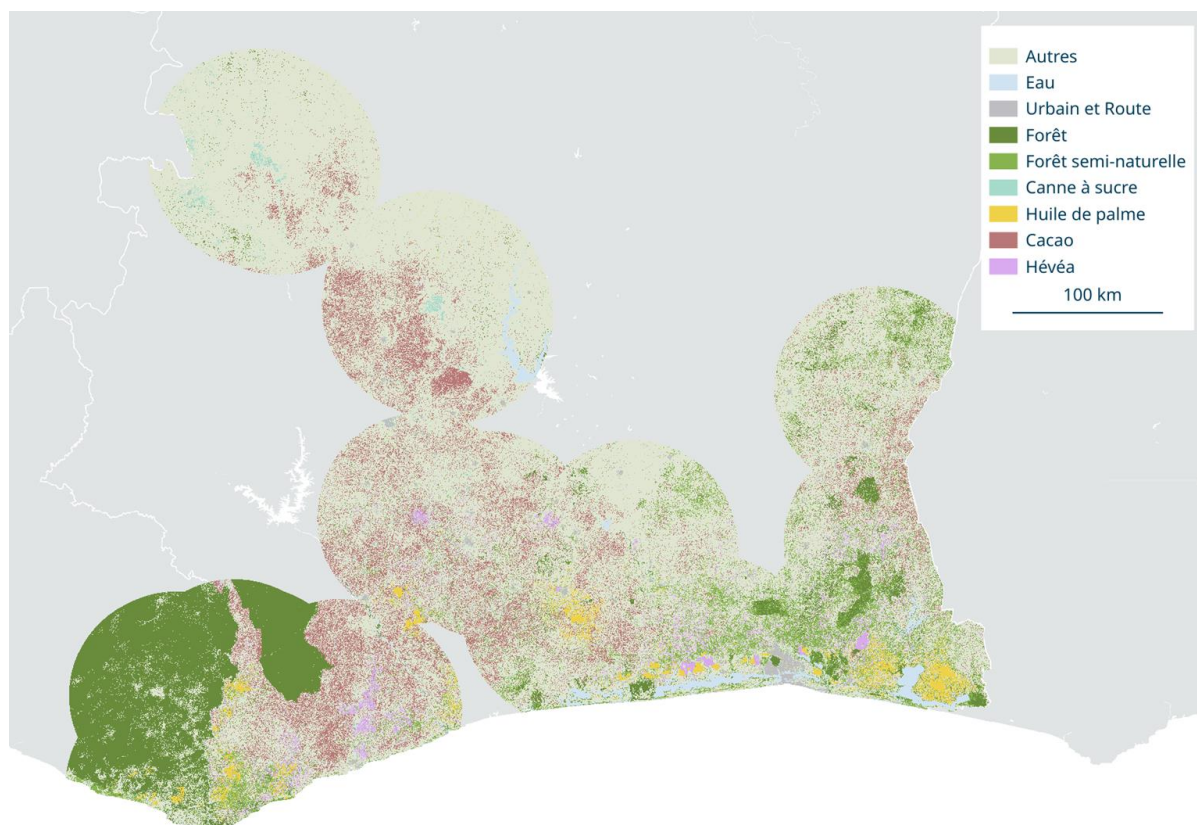
Class	Area (km²)	% of Total Area
Water	2450	2
Urban and Roads	2893	2
Other	90399	62
Forest	18635	13
Medium Forest	9155	6
Sugarcane	1032	1
Oil Palm	2657	2
Cocoa	14971	10
Rubber	2788	2

An online version of this map can be found at
https://viewer.satelligence.com/P20.023_WAF-SIFCA-FCC/

SIFCA Landuse Landcover 2020 Sugar Cane Detail

Legend:
- Concession
- Autres
- Eau
- Urbain et Route
- Forêt
- Forêt semi-naturelle
- Canne à sucre
- Huile de palme
- Cacao
- Hévéa

4 km

SIFCA Landuse Landcover 2020 Oil Palm Detail

Legend:
- Concession
- Autres
- Eau
- Urbain et Route
- Forêt
- Forêt semi-naturelle
- Canne à sucre
- Huile de palme
- Cacao
- Hévéa

2 km
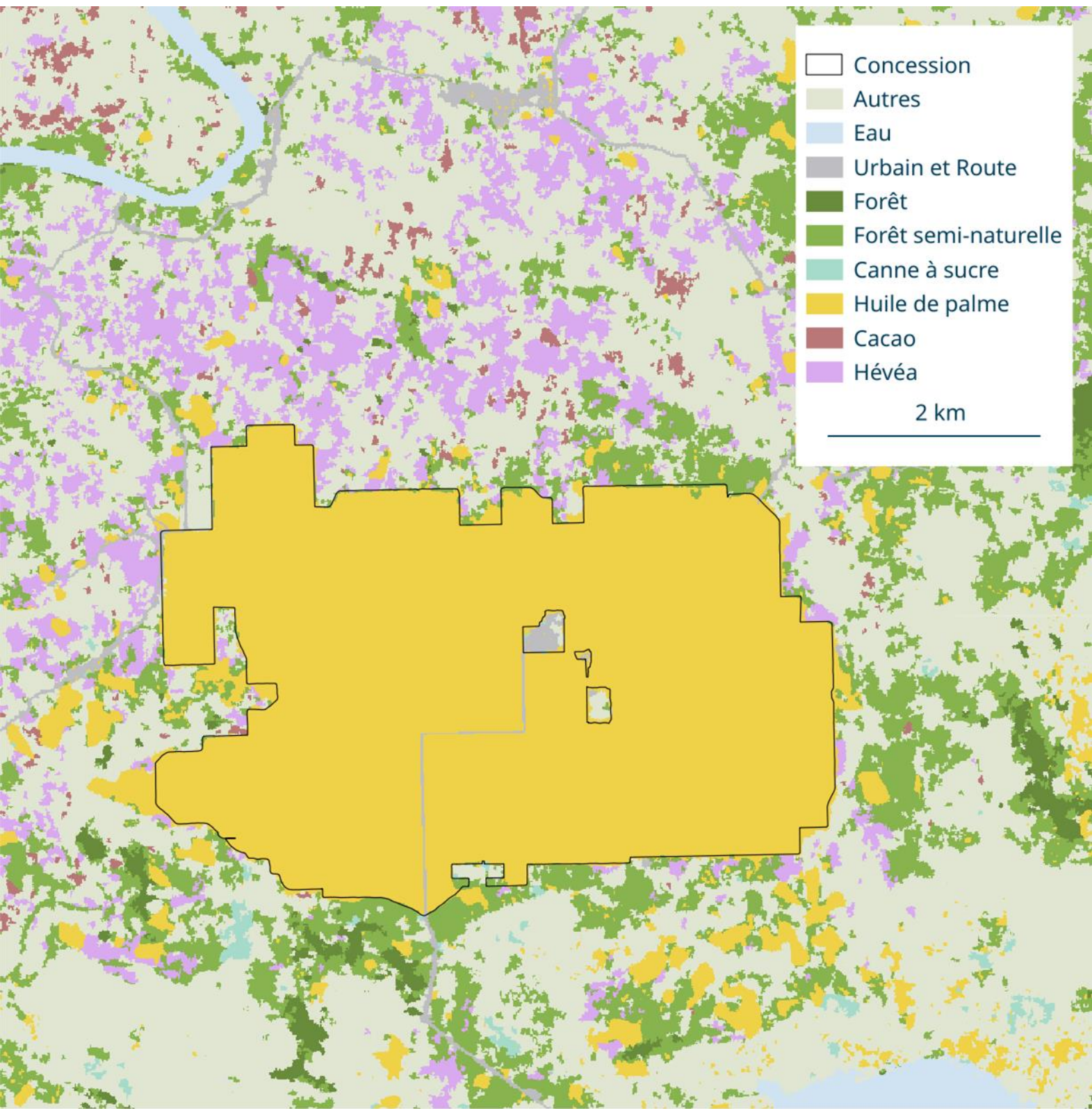
SIFCA Landuse Landcover 2020 Rubber Detail

Legend:
- Concession
- Autres
- Eau
- Urbain et Route
- Forêt
- Forêt semi-naturelle
- Canne à sucre
- Huile de palme
- Cacao
- Hévéa

2 km
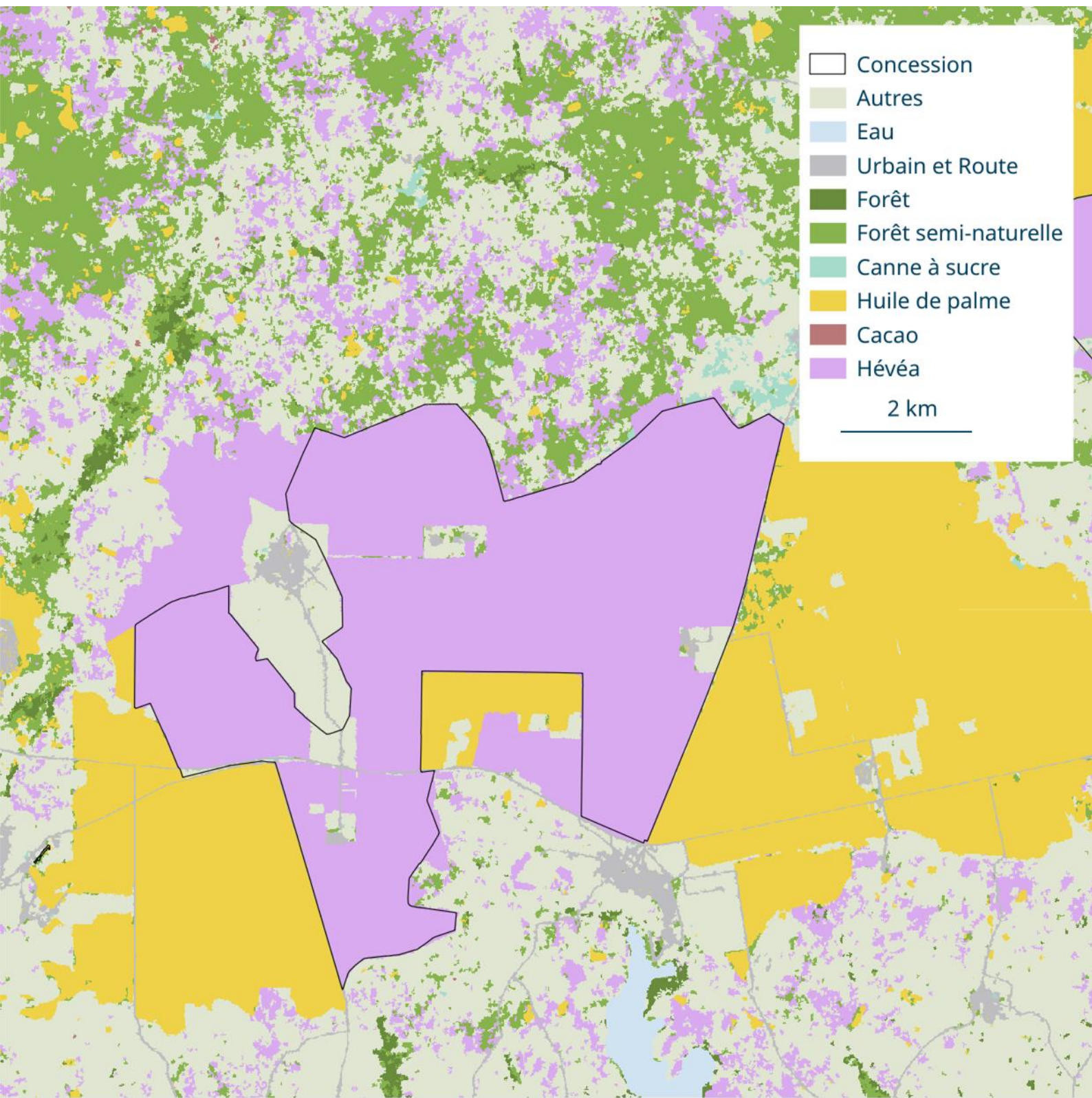
SIFCA Landuse Landcover General Description

Satellite imagery
- Sentinel 2 optical imagery from 2020-2021
- Sentinel 1 radar imagery of 2020-2021
- Landsat optical imagery from 1984-2021

Classes Description

Class	Description
Sugarcane	Sugar cane fields
Oil Palm	Oil palm trees
Rubber	Rubber trees
Cocoa	Cocoa trees
Urban and Roads	Urban areas and roads
Forest	Forest, with a canopy cover more than 30% and with trees taller than 5 meters on their mature tree age.
Medium Forest	Forest, degraded or regenerating. Canopy cover less than 30% and/or trees lower than 5 meters.
Water	Permanent water such as rivers, lakes and oceans

Additional information

The characteristics of medium forest, cocoa and rubber are very similar in satellite imagery, and are therefore challenging to map accurately. This similarly happens for (irrigated) sugarcane and crops that are grown in river valley bottoms.

We see that because of these difficulties, the total area of rubber and sugarcane might see slight regional under/overestimations in the landuse landcover map.

SIFCA Deforestation Per District Overview

We define deforestation as loss of natural forest that has not been cleared since the first publicly available satellite images (1984). By analysing all satellite images since that year we are able to determine where forest has been lost and where it still remains intact. We aggregated these data to give an insight into the deforestation within the (partial) districts in the vicinity of where SIFCA operates. Below the numbers are shown per district in absolute area of lost forest cover and in percentages of the total forest within that district. Especially Bas-Sassandra (Côte d'Ivoire) and GrandKru (Liberia) have seen significant deforestation, but both still have 70% of the original forest cover (2000) remaining. In contrast, Woroba (Côte d'Ivoire) has seen an almost complete removal of its intact forest in the past two decades. Overall most of this deforestation has taken place in the first years of this millennium. After that, the remaining intact forests have mostly been confined to protected areas, national parks or economically less interesting areas, leading to a steady decline to very low deforestation rates in recent years.

The next pages will describe the deforestation within the concessions of each of the five involved subsidiaries of SIFCA: CRC, MOPP, SAPH, PalmCI and Sucrivoire.

Country	District	Deforestation (ha)	Remaining primary forest (%)
Côte d'Ivoire	Abidjan	759	81
	Bas-Sassandra	134591	74
	Comoé	17331	80
	Denguélé	-	-
	Gôh-Djiboua	5846	58
	Lacs	-	-
	Lagunes	17797	85
	Sassandra-Marahoué	8647	19
	Woroba	4258	3
	Yamoussoukro	-	-
Liberia	GrandKru	56109	75
	Maryland	4729	94
	River Gee	12069	97

SIFCA Historical Deforestation CRC

Class	Transformation (ha)
Autres	40.4
Eau	0.0
Urbain et Route	1.9
Canne à sucre	2.4
Huile de palme	1.0
Cacao	0.0
Hévéa	0.0
Total	**45.8**
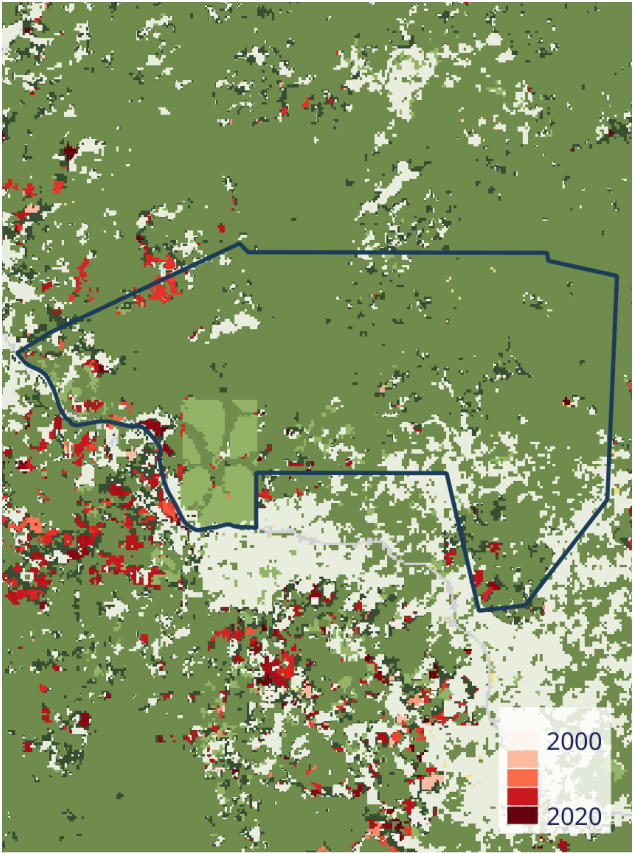
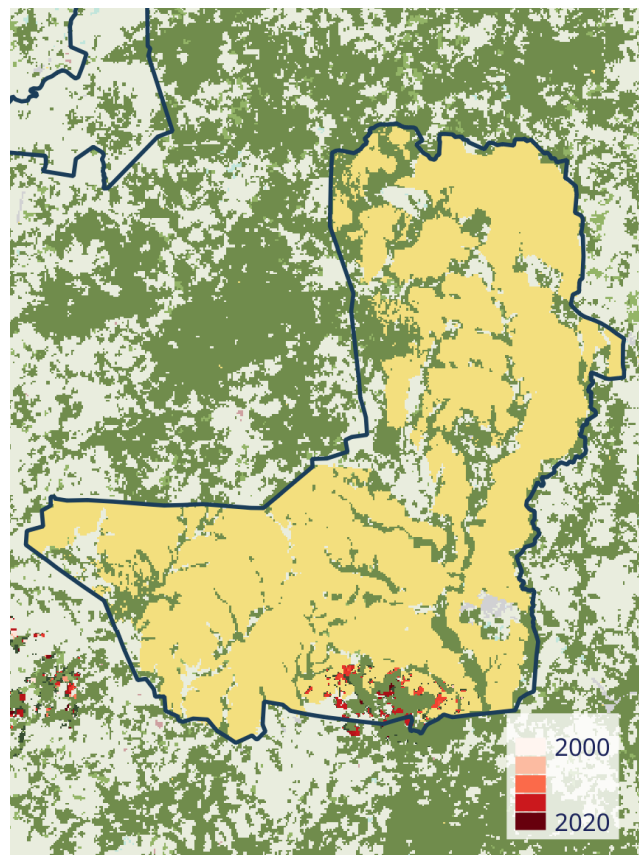**Superficie totale des concessions: 2466 ha**

Transformation des forêts dans les concessions CRC 2000-2020

Surface en hectares
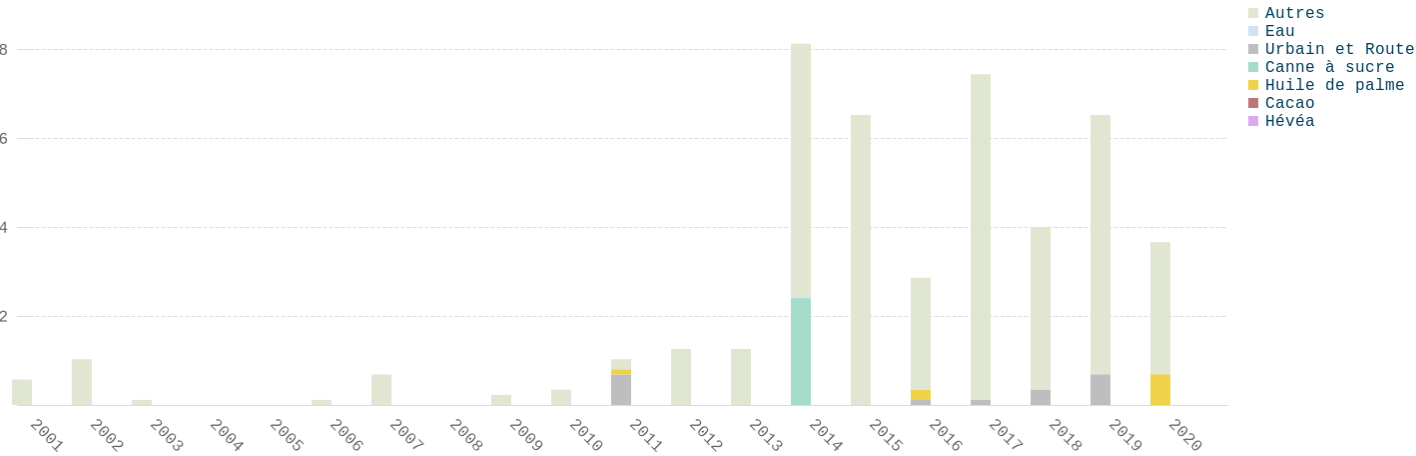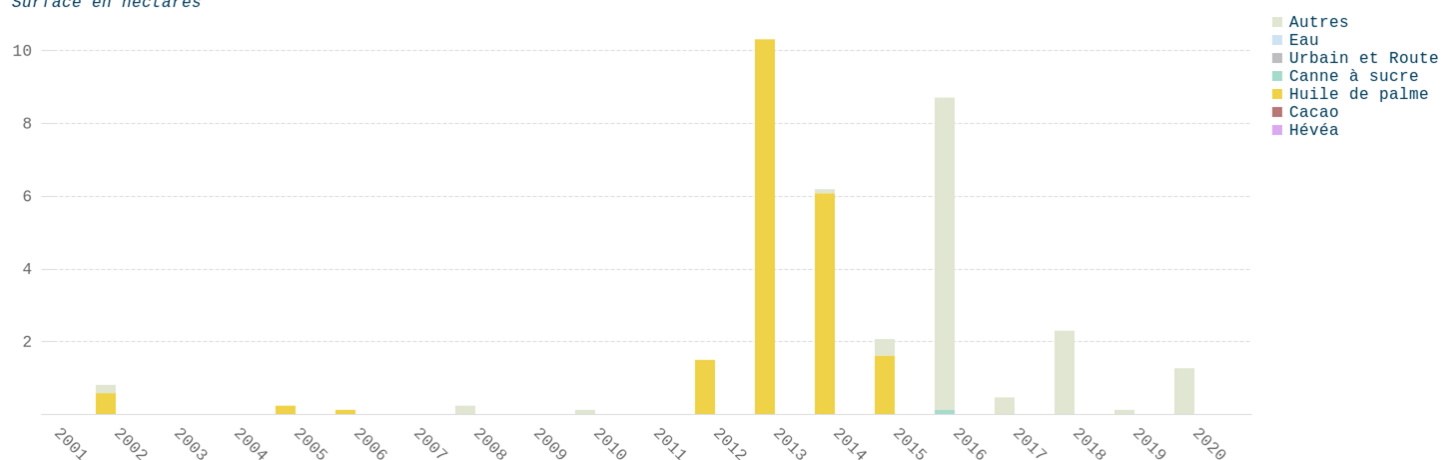
SIFCA Historical Deforestation **MOPP**

Class	Transformation (ha)
Autres	13.9
Eau	0.0
Urbain et Route	0.0
Canne à sucre	0.1
Huile de palme	20.4
Cacao	0.0
Hévéa	0.0
Total	**34.3**

Superficie totale des concessions: 7409 ha

Transformation des forêts dans les concessions MOPP 2000-2020

Surface en hectares

SIFCA Historical Deforestation PalmCI

Class	Transformation (ha)
Autres	16.5
Eau	0.1
Urbain et Route	0.0
Canne à sucre	0.9
Huile de palme	37.7
Cacao	0.0
Hévéa	0.1
Total	**55.3**
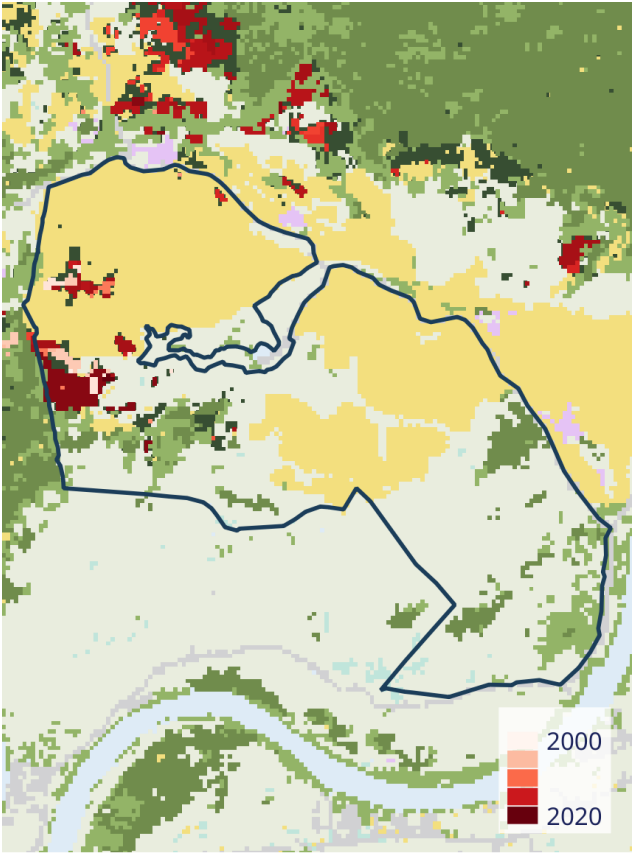
Superficie totale des concessions: 36,531 ha

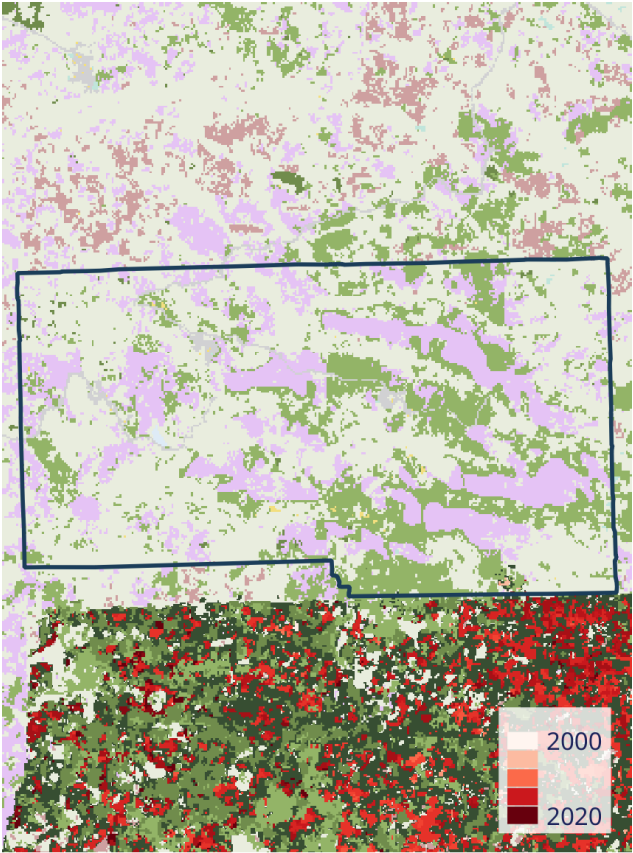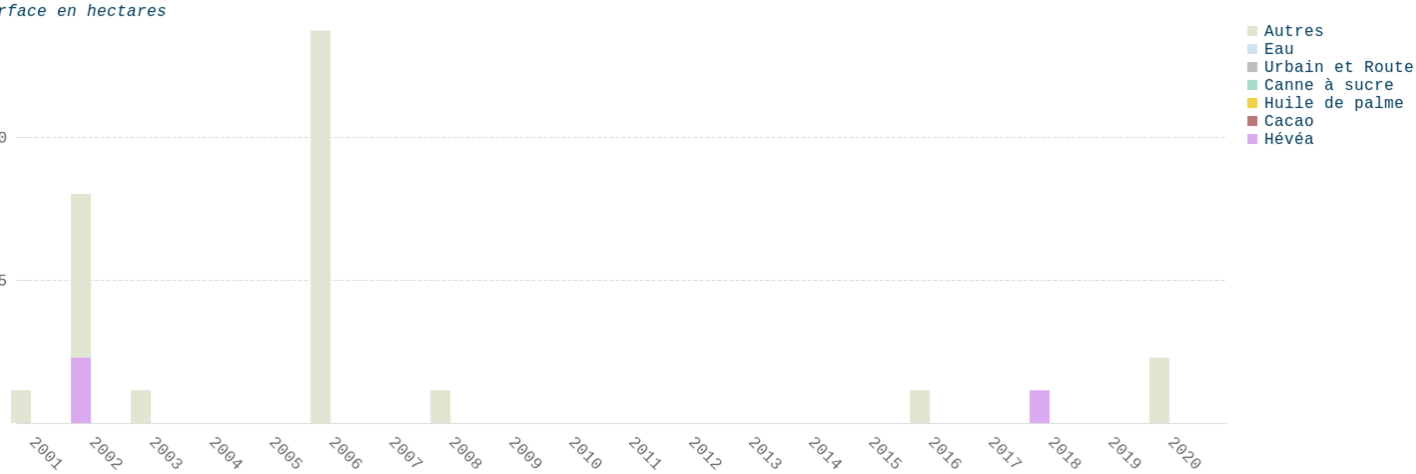## Transformation des forêts dans les concessions PalmCI 2000-2020

Surface en hectares

Legend:
- Autres
- Eau
- Urbain et Route
- Canne à sucre
- Huile de palme
- Cacao
- Hévéa
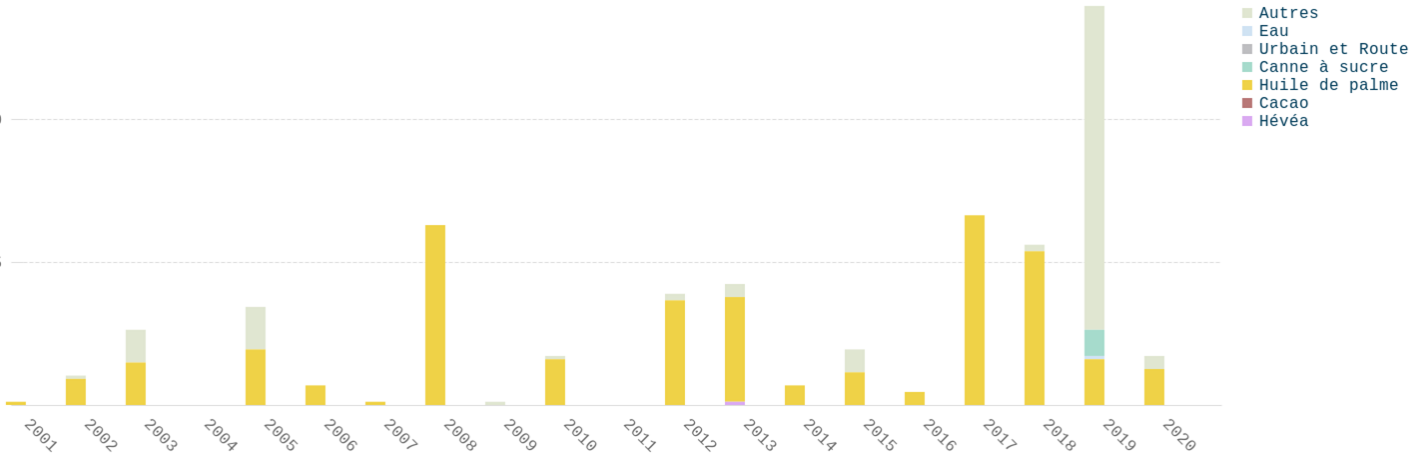
SIFCA Historical Deforestation SAPH

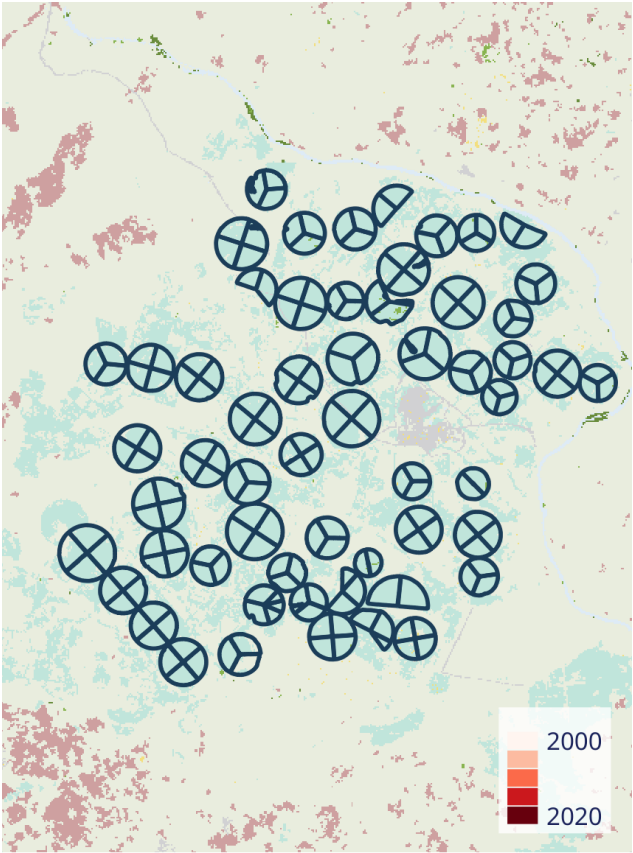| Class	Transformation (ha)
Autres	2.6
Eau	0.0
Urbain et Route	0.0
Canne à sucre	0.0
Huile de palme	0.0
Cacao	0.0
Hévéa	0.3
Total	**3.0**

Superficie totale des concessions: 32,383 ha

Transformation des forêts dans les concessions SAPH 2000-2020
Surface en hectares

SIFCA Historical Deforestation Sucrivoire

Class	Transformation (ha)
Autres	0.0
Eau	0.0
Urbain et Route	0.0
Canne à sucre	0.0
Huile de palme	0.0
Cacao	0.0
Hévéa	0.0
Total	**0.0**

Superficie totale des concessions: 9217 ha

Transformation des forêts dans les concessions Sucrivoire 2000-2020
Surface en hectares

Autres
Eau
Urbain et Route
Canne à sucre
Huile de palme
Cacao
Hévéa

0

2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

Conclusions

The land use and land cover map has been developed for the entire area of interest in Côte d'Ivoire and Liberia (operations + 70km radius). The land use map consists of the following classifications: Cocoa, Sugarcane, Oil Palm, Rubber. Urban and Roads, Forest, Medium Forest, Water.

The characteristics of medium forest, cocoa and rubber are similar in satellite imagery, and are therefore challenging to map accurately. This similarly happens for (irrigated) sugarcane and crops that are grown in river valley bottoms. We see that because of these difficulties, the total area of rubber and sugarcane might see slight regional under/overestimations in the landuse and landcover map. Satelligence will provide an update of the map during 2022 taking into account these challenges.

Overall historical deforestation rates, since 2000, are very low for SIFCA operations and surroundings. This coincides with the general trend that deforestation in Côte d'Ivoire is decreasing since 2000. If deforestation is observed, it is mainly in the buffer regions of the concessions and farms.

Major districts in Côte d'Ivoire with deforestation (that fall within the covered area) are Bas-Sassandra, Comoé, Denguélé and Lagunes. Major districts in Liberia with deforestation (that fall within the covered area) are GrandKru, Maryland and River Gee. Most of these regions do not have a lot of primary forest left and do not pose significant future risk because of that.