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# "FLEGT Watch" application for logging

# Preparation and report of field mission in Kumasi (Ghana) on 8-11 April 2019

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## **DOCUMENT STATUS SHEET**

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## 1 Introduction

# 1.1 Purpose of this document

This document contains the report of the field missions performed on the framework of FLEGT Watch project.



fig. 1 – Tetrem field mission.

#### 1.2 <u>Document overview</u>

- Chapter 1 is the present section applicable to the overall document.

- Chapter 2 gives suggestions of places to carry out the field mission.

- Chapter 3 describes the Tetrem field mission.

## 1.3 Applicable documents

All the applicable documents listed in section 1.4 of the Project Document (A-1) shall be considered as applicable.

**A-1** VT-P281-DOC-001-E

"FLEGT Watch" application for logging - Project document issue 4 rev. 2, draft 6, 05/11/2018

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#### 1.4 Reference documents

This section describes the related documents and applied conventions to be considered within the present document.

All the reference documents listed in section 1.5 of the Project Document (A-1) shall be considered as reference documents. Documents listed in this section are not defined in A-1 but have been added here.

## 1.5 Abbreviations and Acronyms

All the abbreviations and acronyms listed in section 1.6 of the Project Document (A-1) may be used in the present document. Only abbreviations and acronyms not defined in A-1 but used in the present document have been added here.

## 1.6 **Definitions**

This section provides the definition of all common terms used within this document. Special attention has been paid to adopt definitions from international standards as ISO, ANSI or ECSS.

All the definitions listed in section 1.7 of the Project Document (A-1) may be used in the present document. Only definitions not defined in A-1 but used in the present document have been added here.



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## 2 Proposition of places for the field mission

By analyzing recent Sentinel-1 acquisitions around the city of Kumasi, the VisioTerra engineers suggested four (4) locations for which singularities were found in the forest cover.

1	Abufour (west)	https://visioterra.org/FlegtWatch/hyperlook/21b4b3b52c064dcda5d5c3c438676362
2	Pokukrom	https://visioterra.org/FlegtWatch/hyperlook/16f1291133c848329a14da4d4d9638de
3	Tetrem (west)	https://visioterra.org/FlegtWatch/hyperlook/fa9e7fab242b4469b76551b8581dd5d1
4	Tetrem (east)	https://visioterra.org/FlegtWatch/hyperlook/f6c838678ef14092af7012d08f3a6207

table 1 - Sites for possible field mission.

All these four sites are grouped in the hyperlook <a href="https://visioterra.org/FlegtWatch/hyperlook/aac35fb97f4a451bbd10cf88249754ec">https://visioterra.org/FlegtWatch/hyperlook/aac35fb97f4a451bbd10cf88249754ec</a>

Figure bellow shows the location of the training place (red) and the four suggested field missions.



fig. 2 - Location of sites for a possible field mission.

Each one of these four sites is presented in the sub-sections here after. They have been presented on Tuesday 9 April 2019 to the participants for their evaluation. Taking into account the severity of the changes and the distance to the hotel, the 3<sup>rd</sup> site (Tetrem west) was selected to carry out the field mission the next day Wednesday 10 April 2019.



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# 2.1 Site 1 - Abufour (west)

A large scale deforestation is supposed in the Opro River forest reserve located 60 km north-west of Camp Martin hotel (journey time estimated to 2h).

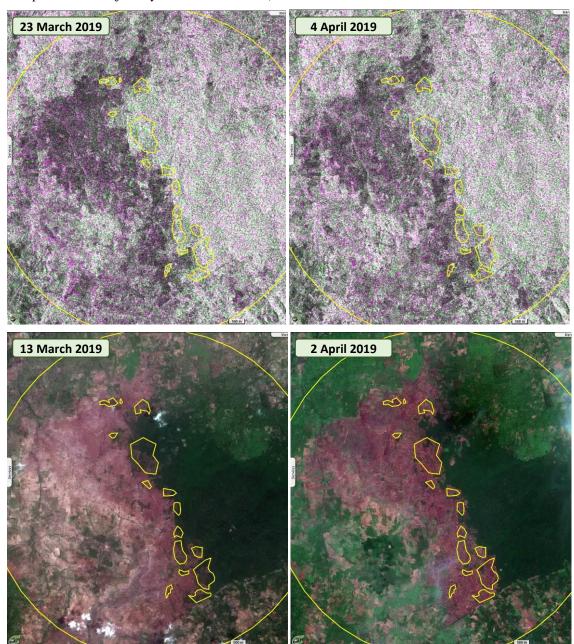


fig. 3 - Site 1 - Abufour (west) - Views of Sentinel-1 radar (top) and Sentinel-2 (optical) before (left) and after (right) a supposed deforestation.



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# 2.2 Site 2 - Pokukrom

A deforestation is supposed in a forest near Wioso located 87 km -west of Camp Martin hotel (journey time estimated to 1h57).

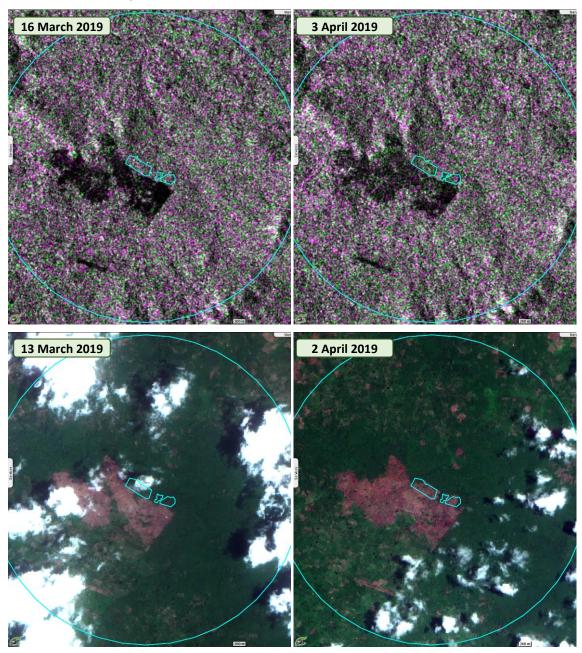


fig. 4 - Site 2 - Pokukrom - Views of Sentinel-1 radar (top) and Sentinel-2 (optical) before (left) and after (right) a supposed deforestation.



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# 2.3 Site 3 - Tetrem (west)

A deforestation is supposed in the western part of a forest near Tetrem located 55 km -west of Camp Martin hotel (journey time estimated to 2h05).

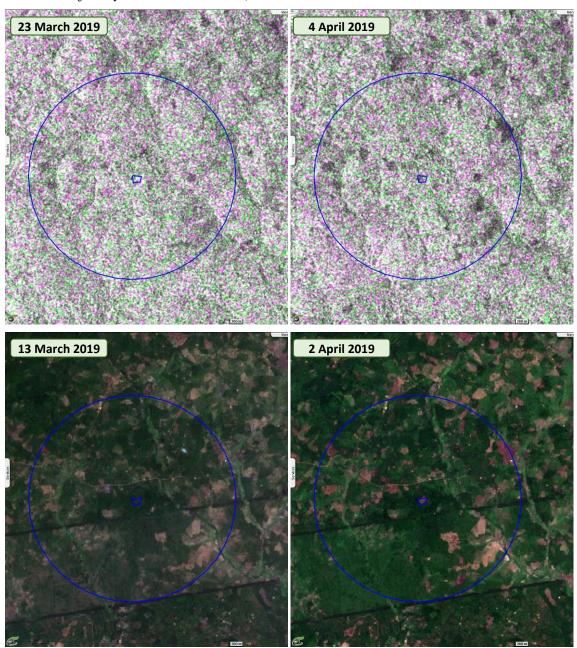


fig. 5 - Site 3 - Tetrem (west) - Views of Sentinel-1 radar (top) and Sentinel-2 (optical) before (left) and after (right) a supposed deforestation.



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# 2.4 Site 4 - Tetrem (east)

A deforestation is supposed in the western part of a forest near Tetrem (east of site 3) located 55 km -west of Camp Martin hotel (journey time estimated to 2h05).

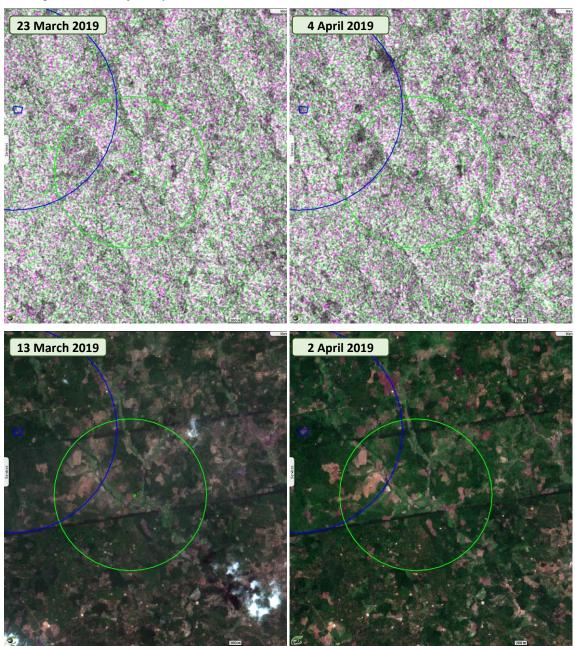


fig. 6 - Site 1 - Tetrem (east) - Views of Sentinel-1 radar (top) and Sentinel-2 (optical) before (left) and after (right) a supposed deforestation.



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## 3 FIELD MISSION - TETREM 10.04.2019

# 3.1 Presentation of the mission

This mission has been performed in the region of Kumasi (Ghana) in the 10<sup>th</sup> of April 2019. The mission contains 24 observations. Each observation has been referenced by a GPS point as showed by fig. 7 (red place marks).

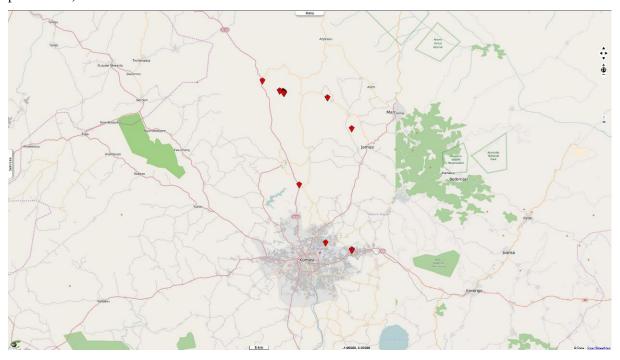


fig. 7 - Locations of the 22 observations performed in the framework of the mission.

This document highlights three observations among the twenty-four that show important change in forest landscape, namely Observation 6, Observation 14, and Observation 22. The three observations correspond to recent deforestations detected by the "FLEGT Watch" system (observation 6) or old ones discovered during the field mission (observations 14 and 22).



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# 3.2 Target 1 analysis: Observation 6

#### 3.2.1 About the observation

Is a plot observed directly from Sentinel 1 and 2 images and reconfirmed on the field as shown by the <u>field picture</u> below.

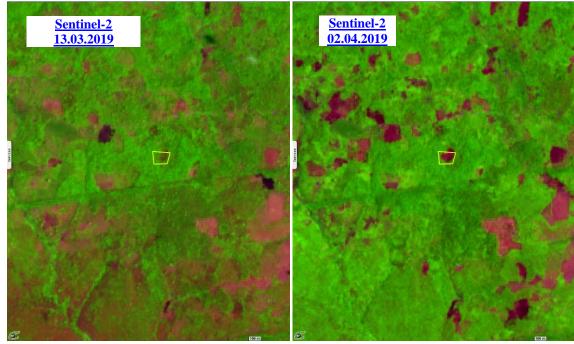




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## 3.3 Target 2 analysis: Observation 14

#### 3.3.1 About the observation

On the field, a declaration of the Director in charge of the tree cut has been collected: "Is a cocoa timber estate limited of about 120 hectares compartment, but just 20 hectares is converted into teak plantation since January 2019. It took four months for the owner to fall the trees in this zone. The plantation is beginning early May 2019" (Reference). Currently farmers are weeding the plots.

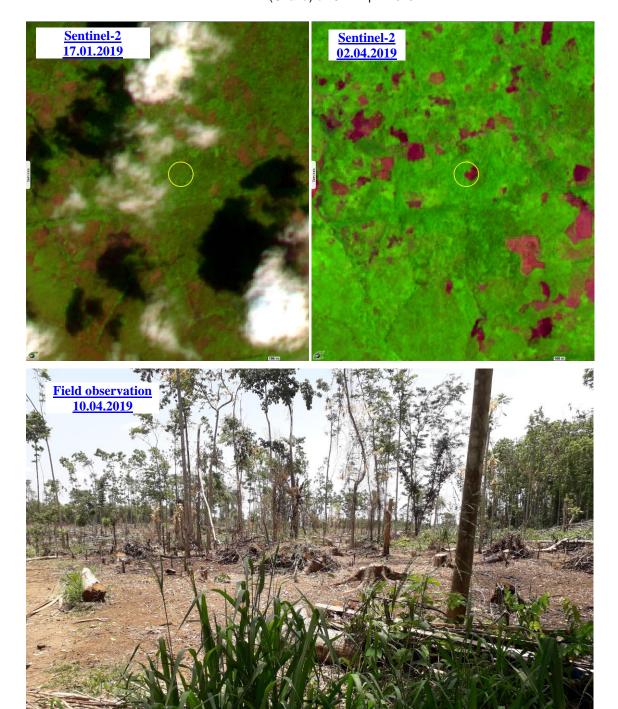




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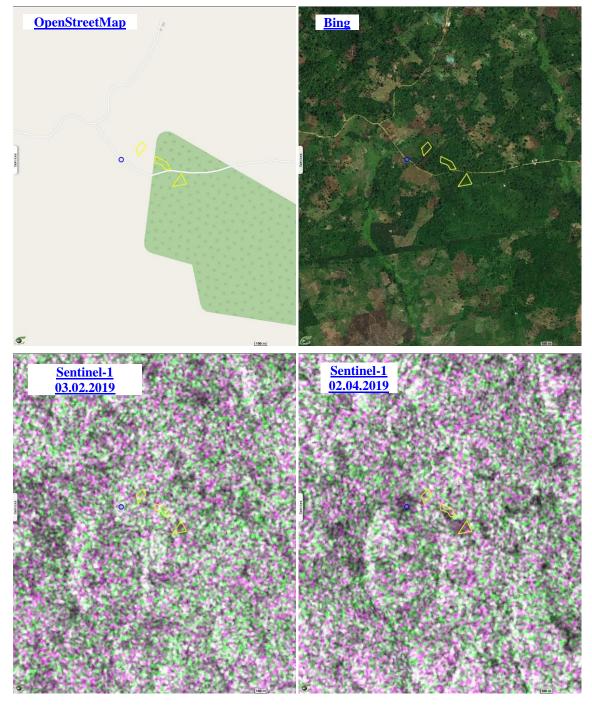
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## 3.4 Target 1 analysis: Observation 22

#### 3.4.1 About the observation

The blue circle is the position of Serge when he took the <u>video</u> of the observation the 10<sup>th</sup> April. It is a long lasting deforested landscape which was observed during field mission. This place seems have been deforested before 2000.

We can also look at the 3 detected objects in yellow around the circle, these places were deforested between 06/02/2019 and 07/04/2019 as we can see in optic (Sentinel-2) or in radar (Sentinel-1).



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