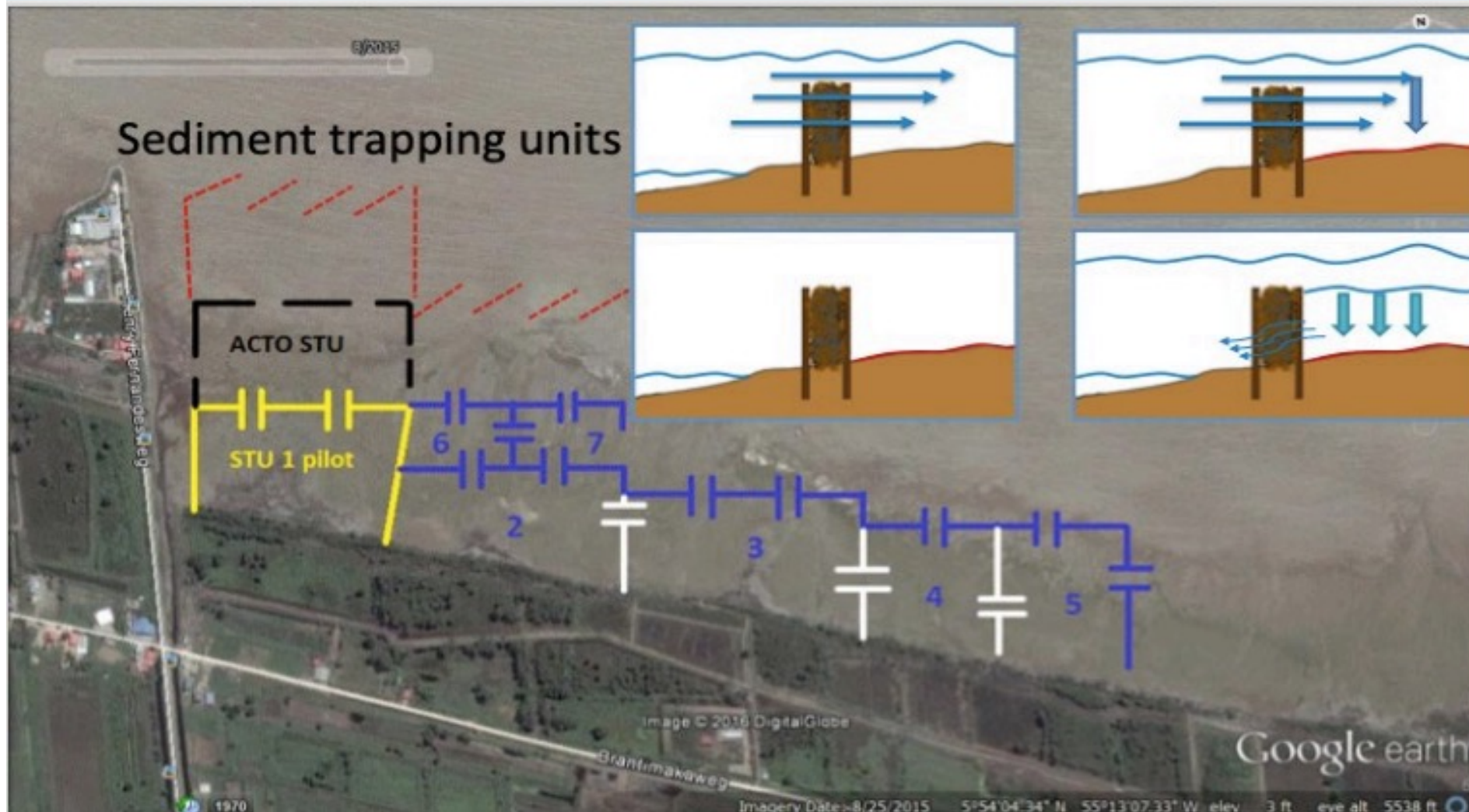




# MONITORING OF COASTAL LINE (SEDIMENT TRAPPING UNITS) IN SURINAME BY PROF. S. NAIPAL



# ENVIRONMENTAL ACTIVIST ADDRESSED POLLUTION IN GOLDMINING AREA IN THE INTERIOR





# USE OF DRONE TECHNOLOGY





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# Mapping mangrove dynamics and colonization patterns at the Suriname coast using historic satellite data and the LandTrendr algorithm

[Steven M. de Jong](#)<sup>a</sup>  , [Youchen Shen](#)<sup>a b</sup>, [Job de Vries](#)<sup>a</sup>, [Ginny Bijnaar](#)<sup>a c</sup>, [Barend van Maanen](#)<sup>d</sup>, [Pieter Augustinus](#)<sup>a</sup>, [Pita Verweij](#)<sup>a</sup>

## Highlights:

- Mangrove dynamics were analysed using satellite images between 2000 and 2018.
- The coast of Suriname is characterized by mangrove gain and loss linked to migrating mud banks.
- Mangrove expansion is fast; NDVI-values increase from 0 to 0.7 within 3 years.
- Satellite images provide insight into various spatial patterns of mangrove colonization.





**SBB: Government Foundation responsible for Forest Management**

**Recent Projects on Earth Observation application:**

- **ACTO project: Monitoring Forest Cover in the Amazon Region.** Duration: 2011-2018

Producing data on forest cover, land use and land cover and deforestation with satellite images,

In collaboration with other countries within the Amazon rainforest.





## Recent project (continued):

- **REDD+ for the Guiana Shield: Duration: 2013-2015**

Regional project with French Guiana, Guyana and Brazil. Mapped gold mining, among other things, and the waterways that have been polluted by gold mining, using satellite images.

- **REDD+ Suriname program:**

Setting up a national forest monitoring system, with satellite land monitoring as one of the components.

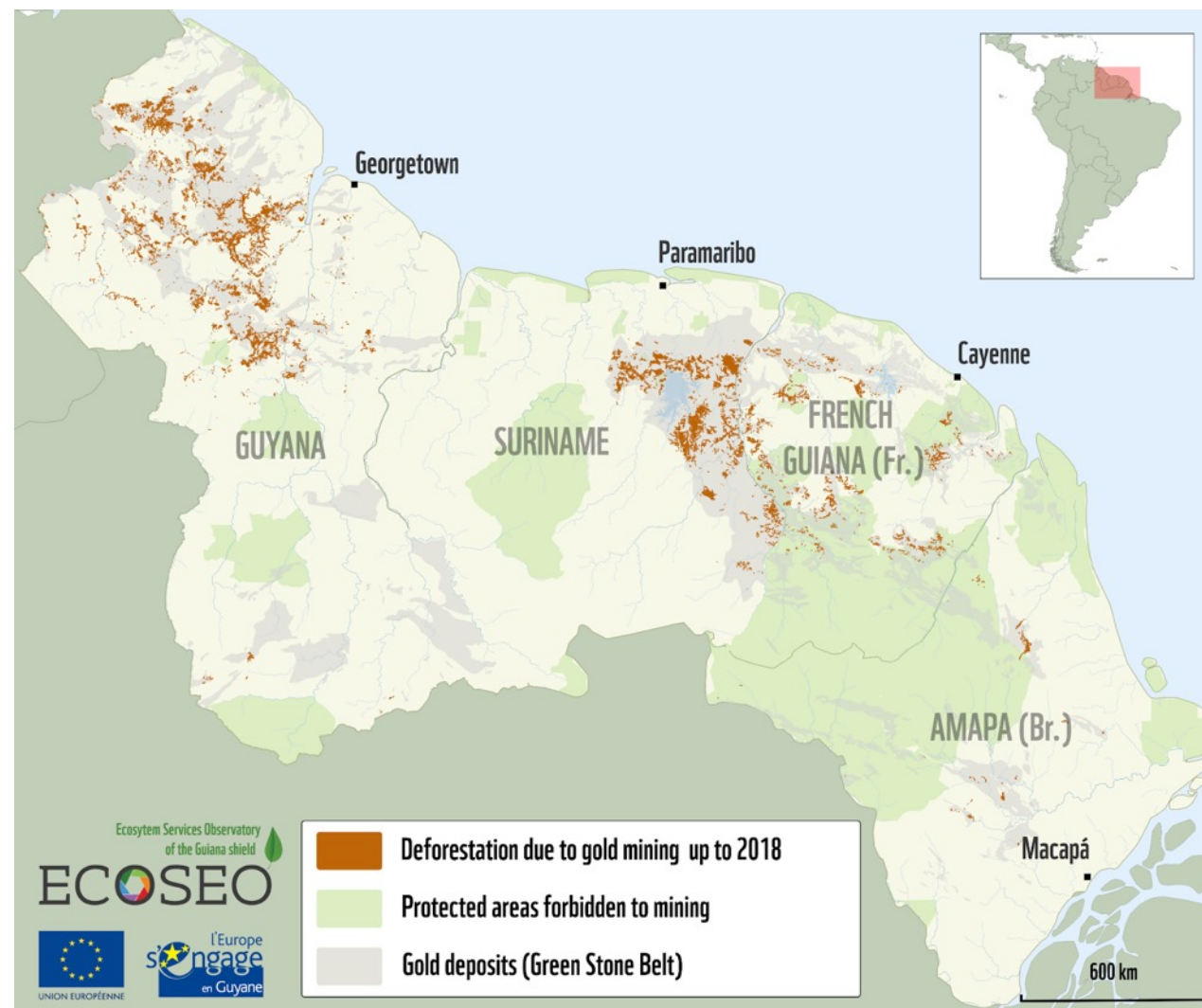




# **ECOSEO project (2019-2021) in collaboration with WWF, Suriname, Fr. Guyane and Brasil**

Mapping Gold Mining activities & Change in Land Use and Land Cover

Addressing three major ecosystem compartments: carbon, water and biodiversity.





## Current project

- **EU-Multi-annual Indicative Programme (MIP) 2021-2027 project:**

**Priority area:** “An EU-Suriname Forest Partnership for the protection, restoration and sustainable use of Suriname’s rainforests and mangroves.”

SBB is one of the implementing agencies to Maintain/continue the National Forest Monitoring System, including the satellite land monitoring system, where remote sensing technology is applied to monitor the forest in Suriname.

# GREEN HERITAGE FUND

## PROTECTING NATURE & WILDLIFE IN SURINAME

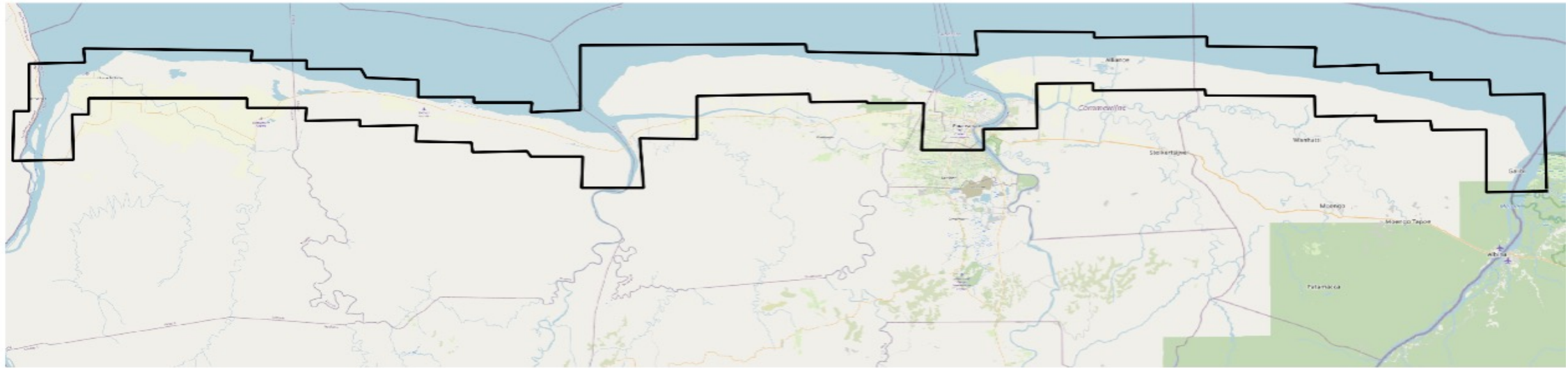
**GHF: Mainly committed to protecting dolphins, sloths, armadillos and anteaters.**


- ***Creation of Environmental Sensitivity Index Maps of the Surinamese coast***

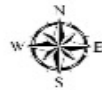
***Master's Thesis by Baptiste Yvelin, Universita di Corsica Pasquale Paoli***

The protocol was to compile datasets from the Participatory 3-Dimensional Modelling (P3DM), a project done in 2022 by Tribal Peoples Development, a consultancy group, recruited by WWF Guiana, GHFS and the Nature Conservation Division of the Suriname's Forest Service (SBB), into Environmental Sensitivity Index (ESI) Maps.

# STUDY AREA



Legend  
 Study area



Baptiste Yvelin Paramaribo May 10th 2020  
 Scale 1:1400000

Source: Open Street Map  
 System: WGS 84 / UTM zone 21N

The study area covers the entire coastal zone which consists of 386 km of coast and deltas.

It is focused on the coastline, going until 5 nautical miles into Suriname's territorial sea, and 10 km inland (between 20 and 25 km for the deltas)

# NZCS & CMO/ ANTON DE KOM UNIVERSITY OF SURINAME

**NZCS:** National Zoological Collection Suriname & **CMO:** Centre for Environmental Research within the Anton de Kom University

- **Main task:** to develop an overview of the Fauna of Suriname, by working together on building a Reference Collection for the Fauna of Suriname and using Fauna as Indicator Species in ecological and biological research.
- **Current use of Earth Observation Tools:** In different research activities, mainly in creating distribution maps for species.
- **Future project (in preparation phase):** Use of flyovers to generate satellite images.



