

Digital Tools for EUDR Compliance & Risk Benchmarking

GEOCITIZENS – INTERNSHIP

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OBJECTIVES

01

Empower smallholder farmers with a SELF-EUDR tool for risk self-checks

02

Benchmark risk analysis platforms for transparency, usability, consistency

03

Develop reproducible resources and prototypes (GitHub repos, dashboards, docs)

03

WORK PACKAGES



Work	July	August	September
<ul style="list-style-type: none"> ✓ <input checked="" type="checkbox"/> GC-1 WP1 - Reading <ul style="list-style-type: none"> GC-2 Accuracy Assesment - EU GC-3 Global Forest Maps - EU GC-4 Monitoring Framework - MacDemott (2025) 	<div style="background-color: #2e7131; color: white; padding: 2px 5px; border-radius: 5px; display: inline-block;">NS ✓</div> <div style="background-color: #2e7131; color: white; padding: 2px 5px; border-radius: 5px; display: inline-block;">NS</div> <div style="background-color: #2e7131; color: white; padding: 2px 5px; border-radius: 5px; display: inline-block;">NS</div> <div style="background-color: #2e7131; color: white; padding: 2px 5px; border-radius: 5px; display: inline-block;">NS</div>		
<ul style="list-style-type: none"> ✓ <input checked="" type="checkbox"/> GC-6 WP1 - Research <ul style="list-style-type: none"> GC-7 Usability of WHISP, Color33 GC-8 Explore FarmVibes.AI 		<div style="background-color: #2e7131; color: white; padding: 2px 5px; border-radius: 5px; display: inline-block;">NS ✓</div> <div style="background-color: #2e7131; color: white; padding: 2px 5px; border-radius: 5px; display: inline-block;">NS ✓</div> <div style="background-color: #2e7131; color: white; padding: 2px 5px; border-radius: 5px; display: inline-block;">NS</div>	
<ul style="list-style-type: none"> ✓ <input checked="" type="checkbox"/> GC-9 WP2 - Tool exploration & Prototype <ul style="list-style-type: none"> GC-17 Test functionality of the WISP GC-20 S2DR3 - Exploration GC-19 SAM2GEO - Exploration GC-18 Test functionality of INATrace for supply chain traceability:... 			<div style="background-color: #2e7131; color: white; padding: 2px 5px; border-radius: 5px; display: inline-block;">NS ✓</div> <div style="background-color: #2e7131; color: white; padding: 2px 5px; border-radius: 5px; display: inline-block;">NS ✓</div> <div style="background-color: #2e7131; color: white; padding: 2px 5px; border-radius: 5px; display: inline-block;">NS ✓</div> <div style="background-color: #2e7131; color: white; padding: 2px 5px; border-radius: 5px; display: inline-block;">NS ✓</div>
<ul style="list-style-type: none"> ✓ <input checked="" type="checkbox"/> GC-10 WK3 - Risk Platform Benchmarking <ul style="list-style-type: none"> GC-11 User-flow v1.0 GC-12 WHISP Connection + Dashboard v1.0 GC-14 Exploration of insights retrieval from EO GC-22 GitHub + Documentation 			<div style="background-color: #2e7131; color: white; padding: 2px 5px; border-radius: 5px; display: inline-block;">NS ✓</div> <div style="background-color: #2e7131; color: white; padding: 2px 5px; border-radius: 5px; display: inline-block;">NS</div> <div style="background-color: #2e7131; color: white; padding: 2px 5px; border-radius: 5px; display: inline-block;">NS ✓</div> <div style="background-color: #2e7131; color: white; padding: 2px 5px; border-radius: 5px; display: inline-block;">NS ✓</div>

RESULTS & DELIVERABLES

01 MAIN GITHUB REPO

02 EUDR DASHBOARD - APP

03 EUDR DASHBOARD - REPO

04 BOOKMARK FOLDER

GITHUB REPOSITORY

[GeoCitizens Internship Repo](#)

The screenshot shows a GitHub repository page for 'GeoCitizens'. The repository is public and has 1 branch and 0 tags. The main branch has 25 commits from 'nicolevasos' made 3 days ago. The commits include updates to README.md, .github/assets, docs, notebooks, .DS_Store, README.md, and requirements.txt. The repository has 0 forks, 0 stars, and 0 watching. The README file contains a brief description of the project.

Code | **Issues** | **Pull requests** | **Actions** | **Projects** | **Wiki** | **Security** | **Insights** | **Settings**

GeoCitizens Public

main 1 Branch 0 Tags

Go to file Add file

About

Work from the Digital Tools for EUDR Compliance and Risk Benchmarking internship, including SELF-EUDR prototypes, notebooks, and benchmarking of WHISP and FarmVibes.AI.

Readme Activity 0 stars 0 watching 0 forks

Releases

No releases published [Create a new release](#)

Packages

README

GeoCitizens – Digital Tools for EUDR Compliance and Risk Benchmarking

NOTEBOOKS

01 WHISP GEOJSON TO CSV

The image shows two Google Colab notebooks demonstrating the conversion of WHISP GeoJSON data to CSV and its visualization.

Top Notebook: This notebook displays a table of data from `df_w_risk[:5]`. The columns include plotId, external_id, Area, Geometry_type, Country, ProducerCountry, Admin_Level_1, Centroid_lon, and Centroid_lat. The data shows five rows of information for plots 1 through 5.

plotId	external_id	Area	Geometry_type	Country	ProducerCountry	Admin_Level_1	Centroid_lon	Centroid_lat	
0	1	NaN	154.604996	Polygon	COL	CO	Quindío	-75.783744	4.4
1	2	NaN	27.325001	MultiPolygon	COL	CO	Quindío	-75.780787	4.4
2	3	NaN	7.225000	Polygon	COL	CO	Quindío	-75.779172	4.4
3	4	NaN	4.249000	Polygon	COL	CO	Quindío	-75.784319	4.4
4	5	NaN	6.043000	Polygon	COL	CO	Quindío	-75.787801	4.4

Bottom Notebook: This notebook shows the export of the table to CSV and GeoJSON files. It includes a section titled "5.1.3. Export table with risk columns to CSV & GeoJson (temporary storage)". The code runs three commands:

```
1 df_w_risk.to_csv("whisp_output_table_w_risk.csv", index=False)
2 # builds a geojson file containing Whisp columns. Uses the geometry column "geo" to create the features
3 whisp.convert_df_to_geojson(df_w_risk, "whisp_output_table_w_risk.geojson")
```

After running, it shows the files `whisp_output_table_w_risk.csv` and `whisp_output_table_w_risk.geojson` in the temporary storage.

Map View: A Leaflet map on the right side of the interface visualizes the data. The map shows several polygons representing different areas, with green dots indicating low risk and orange dots indicating more info needed or high risk. A legend titled "Pcrop Risk" defines the colors: green for Low, orange for More info needed, red for High, and grey for Unknown. The map also includes labels for rivers like Rio Quindío and Rio Verde, and a small inset map.

NOTEBOOKS

02 SUPER-RESOLUTION – S2 IMAGES

This notebook demonstrates the use of the **S2DR3** model to generate super-resolved images of Sentinel-2 images with a final resolution of **1 meter per pixel**.

The input images are automatically selected via **Google Earth Engine (GEE)**, prioritizing those with the **lowest cloud coverage**.

The final product includes multispectral and derived images, saved in the [/content/output](#) directory.

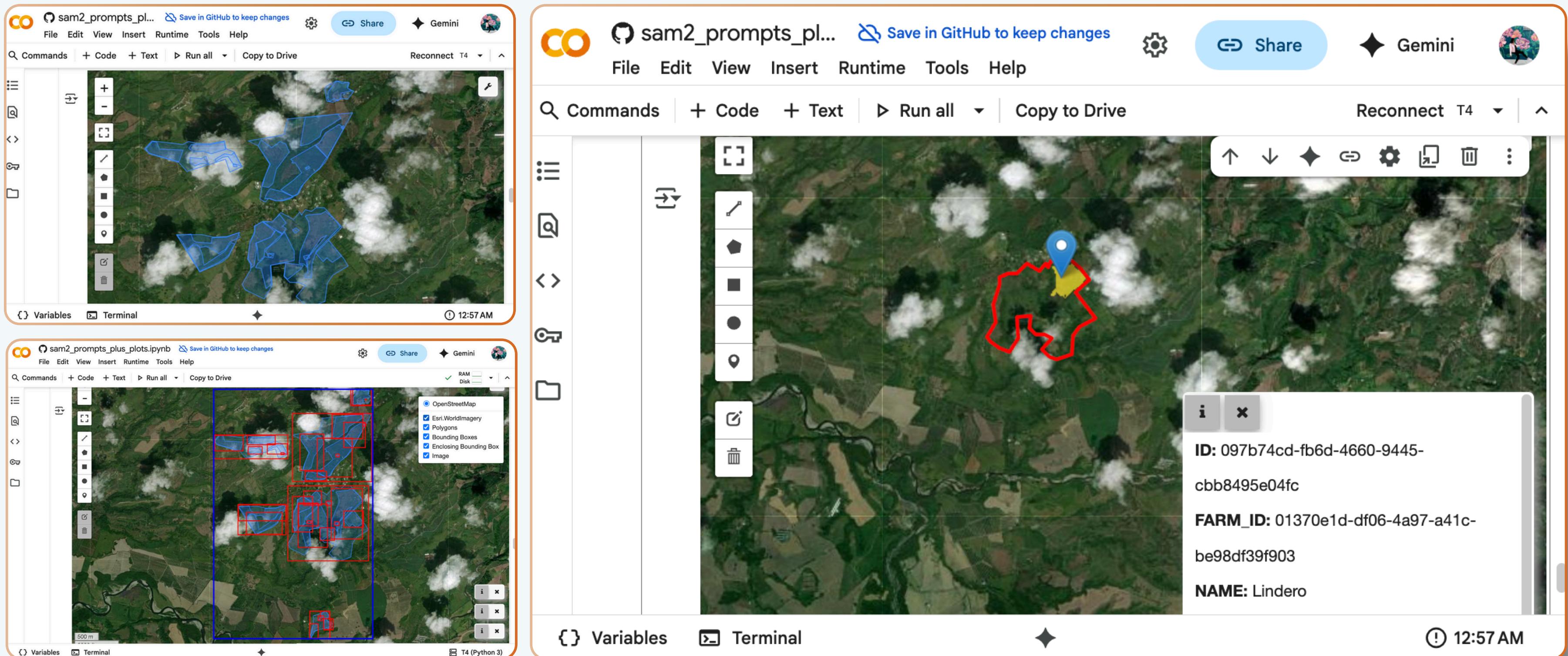
For more information about the model and methodology, see the [README.md](#).



5. Download results in GeoTIFF

NOTEBOOKS

03 SEGMENTING RSI POINT PROMPTS + PLOT EXPLORATION



CUSTOMIZED EUDR DASHBOARD

 **EUDR Risk Analysis Dashboard**

Filters

Country:

Administrative Level 1:

Plot locations

Risk Category

 Treecover  Water Flag

Welcome to EUDR Risk Analysis Dashboard

Choose your data source to begin analysis:

Use Default Dataset

— OR —

Choose File No file chosen

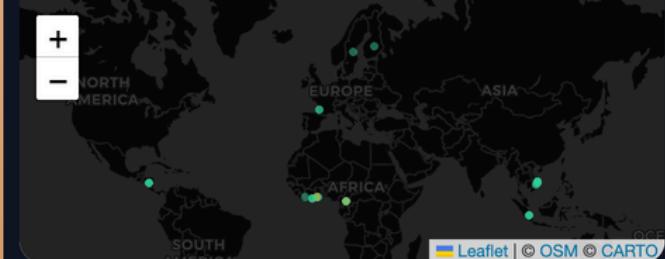
 **EUDR Risk Analysis Dashboard**

Filters

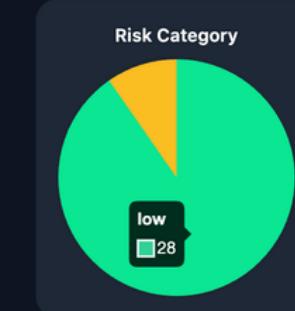
Country: All

Administrative Level 1: All

Plot locations


Leaflet | © OSM © CARTO

Risk Category


Treecover: 0.00 (no), 185.62 (yes)
Water Flag: false, 31.00 (# of plots)

Plot Area by Risk Category

Country	# Plots	Sum of Area	High	Low	Need Info
GHA	3	22.69	0	2	1
IDN	4	66.78	0	4	0
CIV	4	17.67	0	4	0
NIC	4	3.56	0	4	0
CMR	4	6.70	0	2	2
VNM	8	53.52	0	8	0
FIN	1	5.30	0	1	0
SWE	1	3.73	0	1	0
FRA	2	5.66	0	2	0

Disturbance detected by GFC


Primary Forest Indicator: no 122.28, yes 63.34 Total area

Disturbance detected by TMF


Commodity Indicator: no 50.71, yes 134.91 Total area

Disturbance detected by RADD


Disturbance Pre 2020: no 60.97, yes 124.65 Total area

Fires detected by MODIS


Disturbance Post 2020: no 159.14, yes 26.48 Total area



App



Repository

EUDR DASHBOARD - REPOSITORY

EUDR-Dashboard Public

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

main 1 Branch 0 Tags Go to file Add file Code

nicolevasos README Modified 8e98ae8 · 3 days ago 13 Commits

.github/assets README Modified 3 days ago

data Replace with local changes last week

.DS_Store README Modified 3 days ago

README.md Update README.md 3 days ago

dashboard.js Replace with local changes last week

index.html Update index.html 3 days ago

style.css Replace with local changes last week

README

EUDR Risk Analysis Dashboard

An interactive web-based dashboard for visualizing global risk plots and environmental indicators.



No releases published Create a new release

Packages

No packages published Publish your first package

Deployments 19

github-pages 3 days ago + 18 deployments

Languages

JavaScript 57.5% HTML 37.9% CSS 4.6%

README

EUDR Risk Analysis Dashboard

An interactive web-based dashboard for visualizing global risk plots and environmental indicators. Users can filter data by country and administrative levels, view maps, pie charts, bar charts, and summary indicators, and even upload their own datasets.

View of the Dashboard

EUDR Risk Analysis Dashboard

Filters

Country	# Plots	Sum of Areas	High	Low	Need Info
All	3	22.69	0	2	1
IDN	4	60.78	0	4	0
CIV	4	17.57	0	4	0
NGR	4	3.56	0	4	0
CML	4	6.70	0	2	2
VNM	8	53.52	0	8	0
FIN	1	5.30	0	1	0
SWE	1	5.73	0	1	0
PRA	2	5.66	0	2	0

Plot locations

Risk Category

Disturbance detected by GFC

Country	# Plots	Sum of Areas	High	Low	Need Info
GHA	3	22.69	0	2	1
IDN	4	60.78	0	4	0
CIV	4	17.57	0	4	0
NGR	4	3.56	0	4	0
CML	4	6.70	0	2	2
VNM	8	53.52	0	8	0
FIN	1	5.30	0	1	0
SWE	1	5.73	0	1	0
PRA	2	5.66	0	2	0

Disturbance detected by TMF

Country	# Plots	Sum of Areas	High	Low	Need Info
GHA	3	22.69	0	2	1
IDN	4	60.78	0	4	0
CIV	4	17.57	0	4	0
NGR	4	3.56	0	4	0
CML	4	6.70	0	2	2
VNM	8	53.52	0	8	0
FIN	1	5.30	0	1	0
SWE	1	5.73	0	1	0
PRA	2	5.66	0	2	0

Disturbance detected by RAD

Country	# Plots	Sum of Areas	High	Low	Need Info
GHA	3	22.69	0	2	1
IDN	4	60.78	0	4	0
CIV	4	17.57	0	4	0
NGR	4	3.56	0	4	0
CML	4	6.70	0	2	2
VNM	8	53.52	0	8	0
FIN	1	5.30	0	1	0
SWE	1	5.73	0	1	0
PRA	2	5.66	0	2	0

TreeCover

Country	# Plots	Sum of Areas	High	Low	Need Info
GHA	3	22.69	0	2	1
IDN	4	60.78	0	4	0
CIV	4	17.57	0	4	0
NGR	4	3.56	0	4	0
CML	4	6.70	0	2	2
VNM	8	53.52	0	8	0
FIN	1	5.30	0	1	0
SWE	1	5.73	0	1	0
PRA	2	5.66	0	2	0

Water Flag

Country	# Plots	Sum of Areas	High	Low	Need Info
GHA	3	22.69	0	2	1
IDN	4	60.78	0	4	0
CIV	4	17.57	0	4	0
NGR	4	3.56	0	4	0
CML	4	6.70	0	2	2
VNM	8	53.52	0	8	0
FIN	1	5.30	0	1	0
SWE	1	5.73	0	1	0
PRA	2	5.66	0	2	0

Fires detected by MODIS

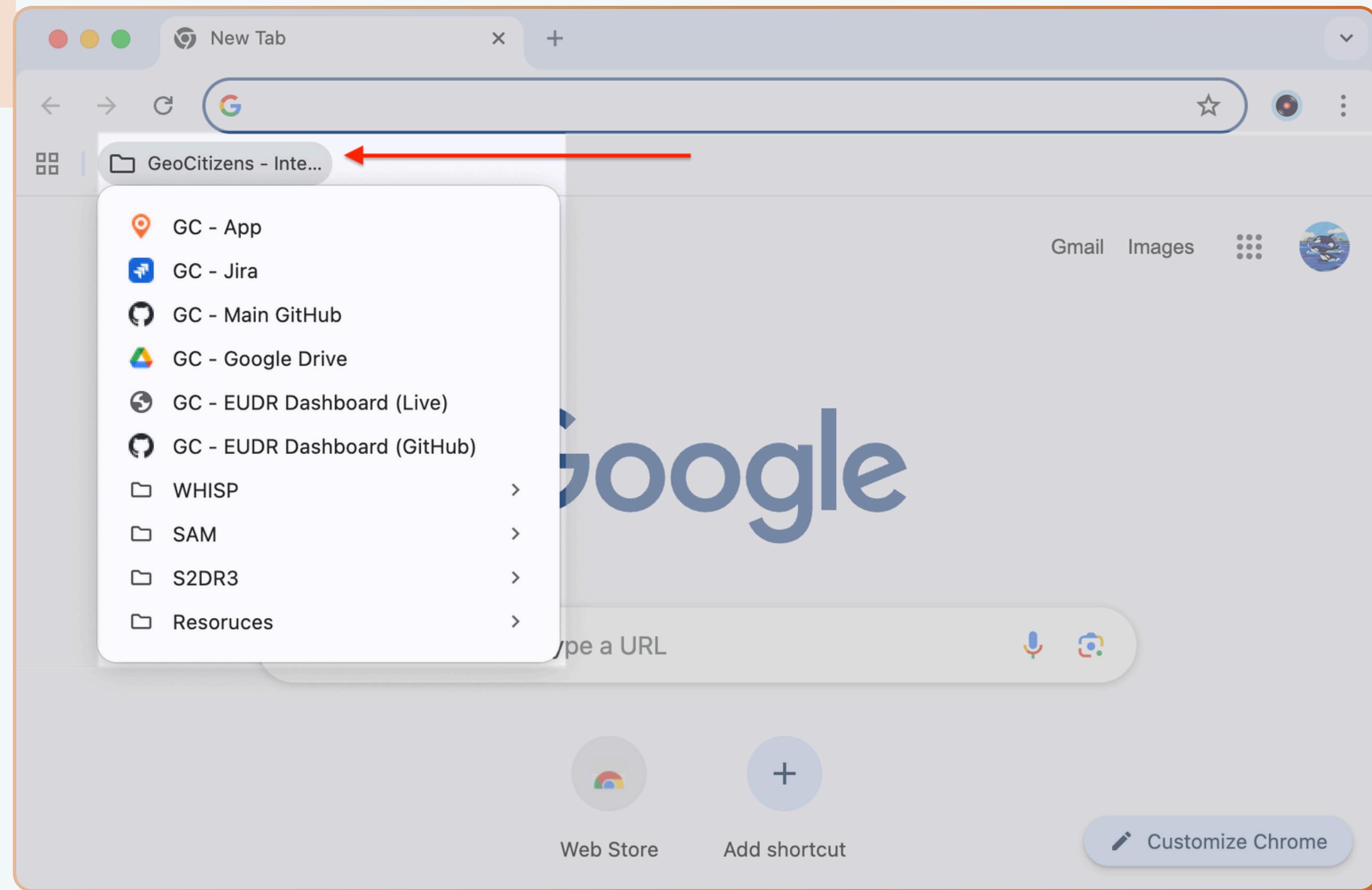
Country	# Plots	Sum of Areas	High	Low	Need Info
GHA	3	22.69	0	2	1
IDN	4	60.78	0	4	0
CIV	4	17.57	0	4	0
NGR	4	3.56	0	4	0
CML	4	6.70	0	2	2
VNM	8	53.52	0	8	0
FIN	1	5.30	0	1	0
SWE	1	5.73	0	1	0
PRA	2	5.66	0	2	0

Disturbance Post 2020

Country	# Plots	Sum of Areas	High	Low	Need Info
GHA	3	22.69	0	2	1
IDN	4	60.78	0	4	0
CIV	4	17.57	0	4	0
NGR	4	3.56	0	4	0
CML	4	6.70	0	2	2
VNM	8	53.52	0	8	0
FIN	1	5.30	0	1	0
SWE	1	5.73	0	1	0
PRA	2	5.66	0	2	0

BOOKMARK FOLDER

[🔗 Step-by-step integration](#)



LEARNINGS *&* CHALLENGES

01

Hands-on experience with
geospatial tools and APIs

03

Improved skills in
developing dashboards

02

Translate complex regulatory insights
(EUDR) into user-friendly tools

04

Improved ability to **benchmark**
platforms through systematic criteria

LEARNINGS & CHALLENGES

01 Tool Usability

02 Implementation Gaps

03 Resource Constraints

FUTURE WORK THESIS LINK

How GeoAI-powered digital tools can bridge the gap between EUDR compliance requirements & practical solutions for smallholder farmers

01 GeoAI for improved risk detection and monitoring

03 Integration of workflows into SELF-EUDR app

02 Automation, scalability, and farmer-friendly design

04 Direct continuation in Master's thesis

THANK YOU

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- 🌐 nicolevasos.github.io/

