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AN INITIATIVE OF
THE NETHERLANDS
RED CROSS



Effective humanitarian response through data preparedness in Malawi

Niel de Jong, MSc.

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MISSION

Shape the future of humanitarian aid by converting data into understanding, and put it in the hands of humanitarian relief workers, decision makers and people affected, so that they can better prepare for and cope with disasters and crises.



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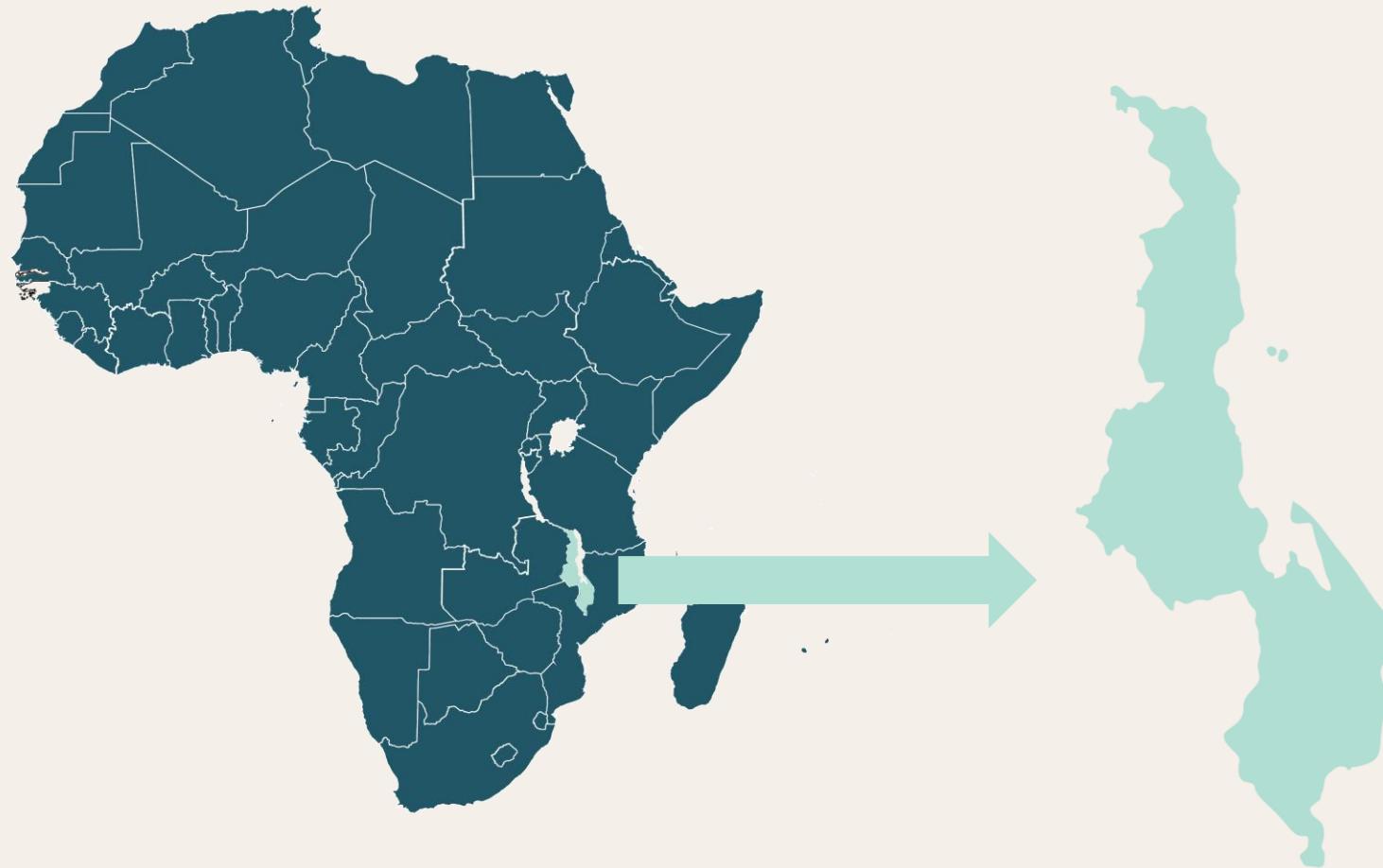
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Effective humanitarian response through data preparedness in Malawi

Niel de Jong, MSc.

MALAWI



MALAWI



MALAWI



MALAWI 2015



MALAWI 2015

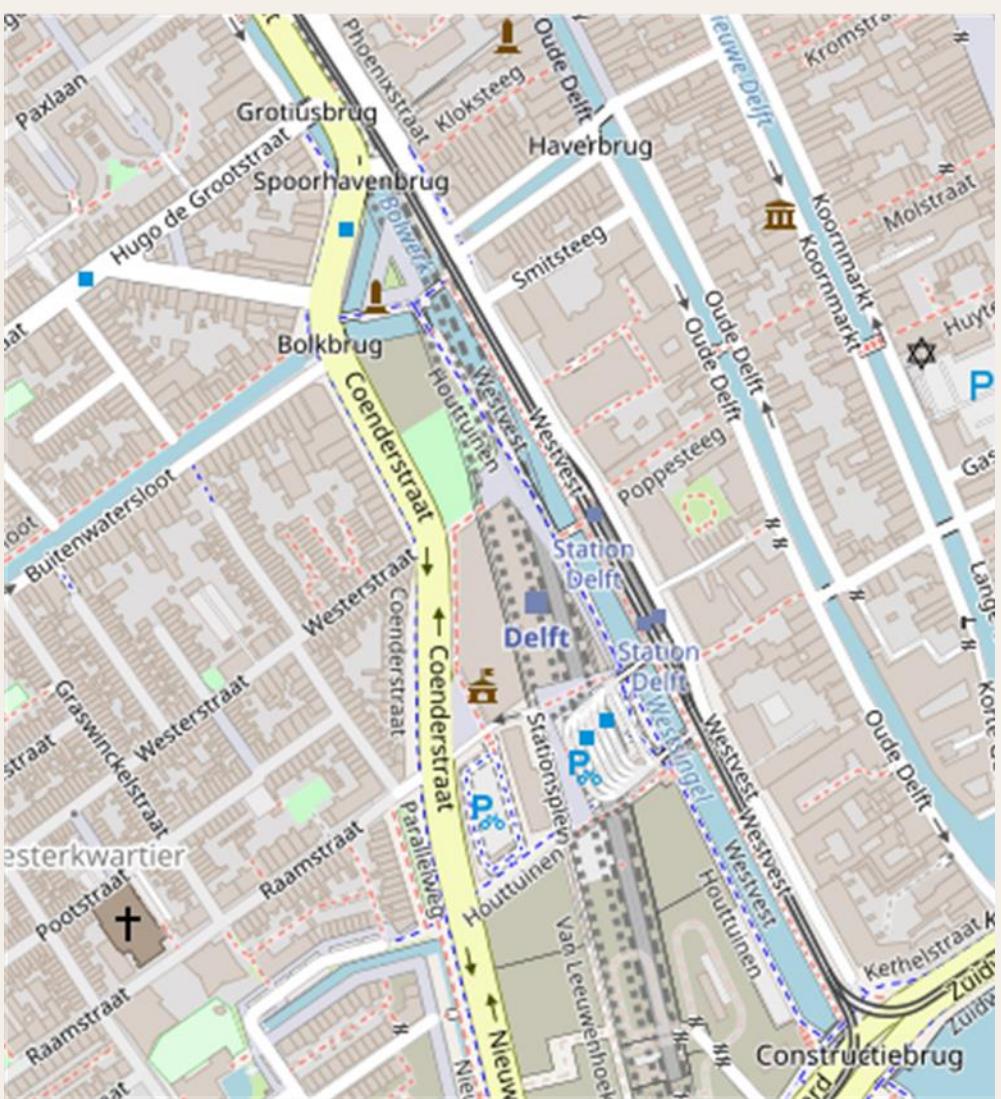


OPEN DATA SOURCE





OPEN STREET MAP



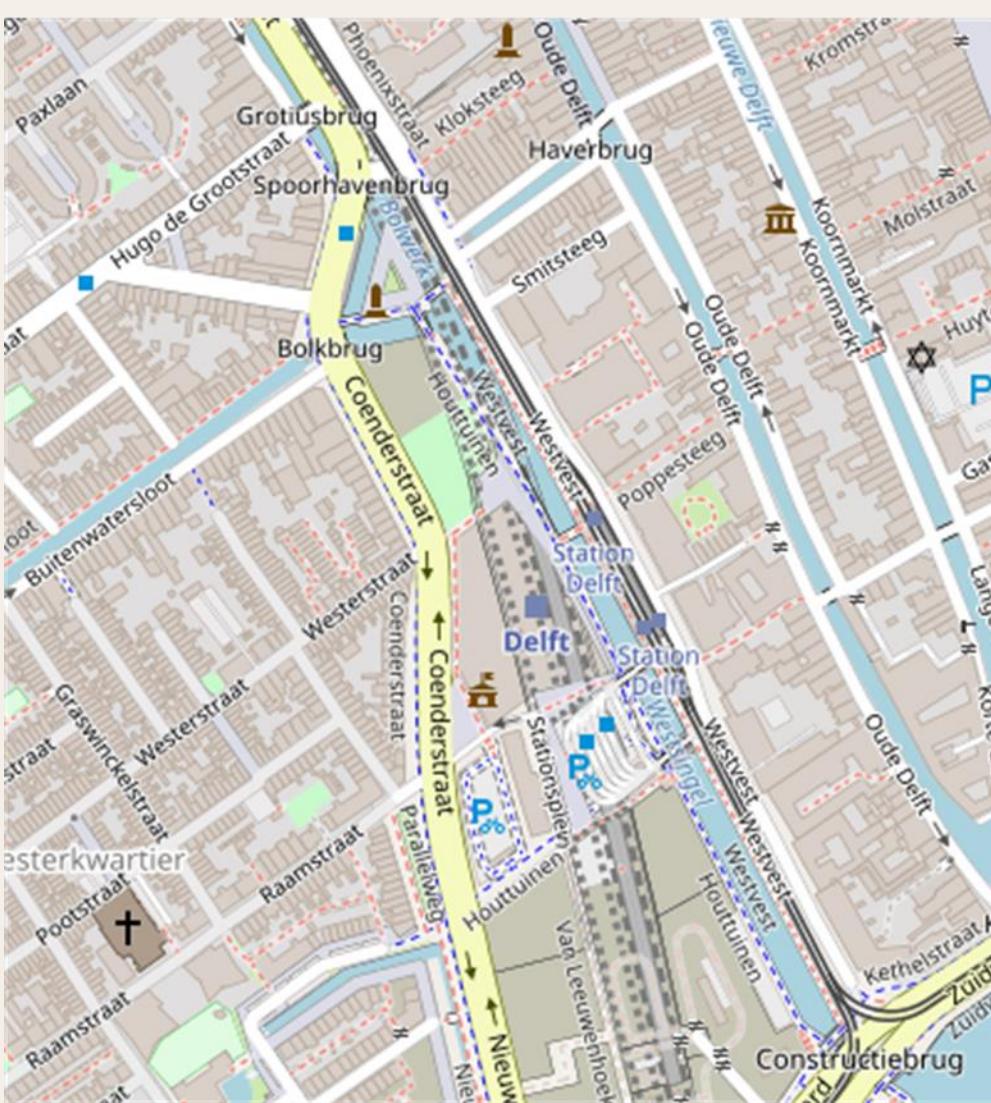
DELFT



CHINTHECHE (MALAWI)



OPEN STREET MAP



DELFT



CHINTHECHE (MALAWI)

Image © 2018 Bing



MISSING MAPS & HOTOSM



TASKING MANAGER

Contribute

Learn

About

What is New?

MEDIUM

#3629 Missing Maps - Malawi - Southeast

Author: Missing Maps

Requesting organization: Netherlands Red Cross

Priority: Medium

Organization: Netherlands Red Cross

Campaign: N/A

Level: BEGINNER

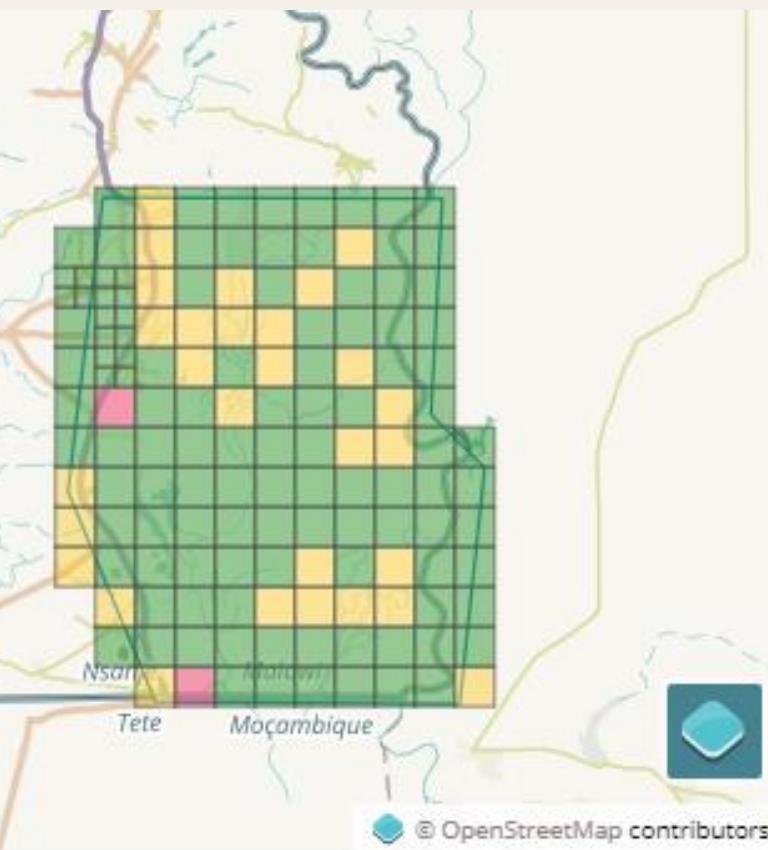
99% Mapped

78% Validated

Legend

- Ready
- Mapped
- Bad imagery
- Validated
- Invalidated
- Locked
- Locked by you

5 km



© OpenStreetMap contributors



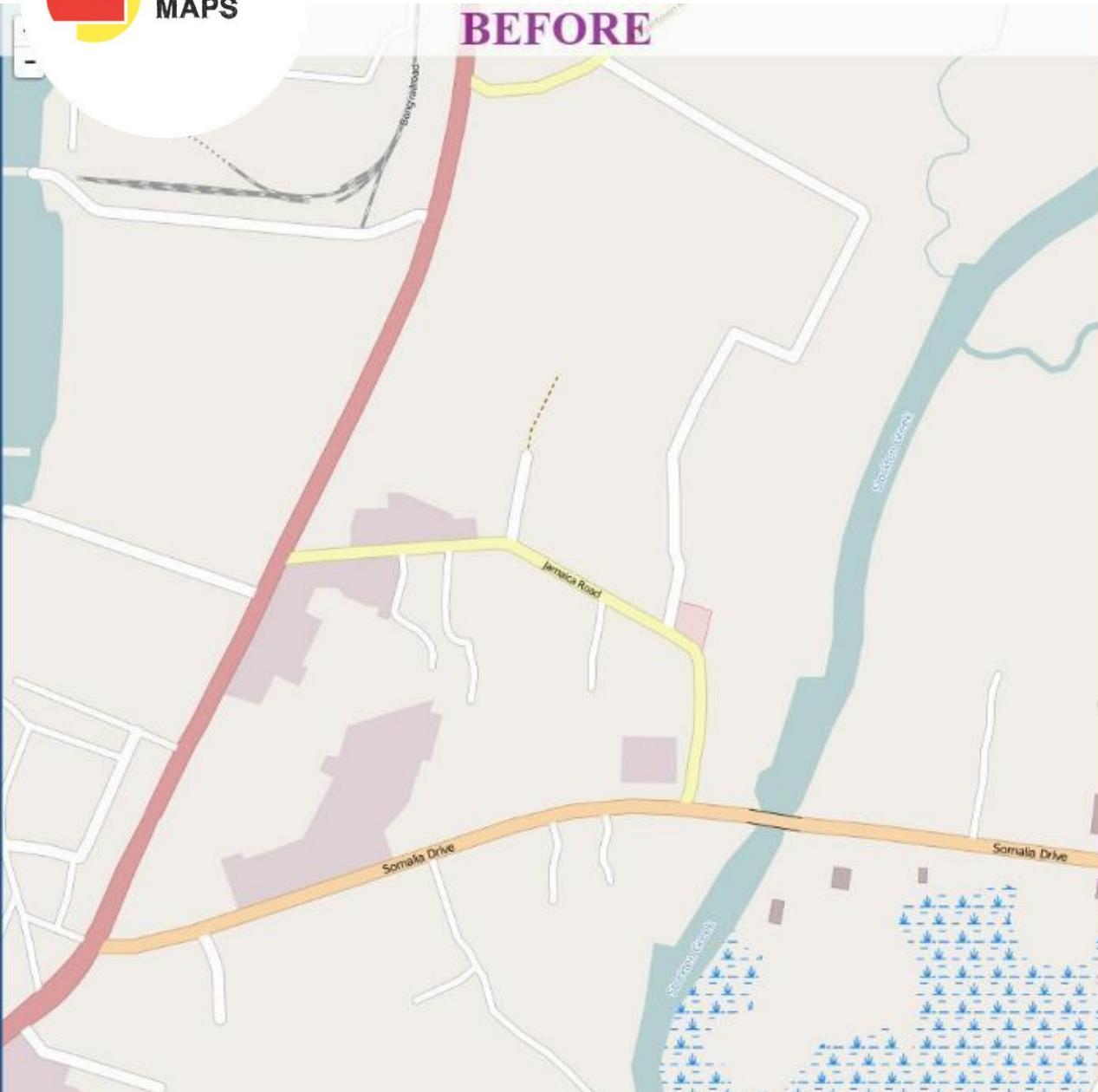
MAPATHON





MAPATHON RESULT

BEFORE



AFTER





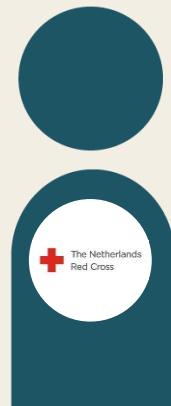
OpenMapKit



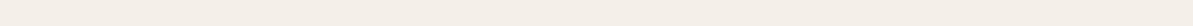
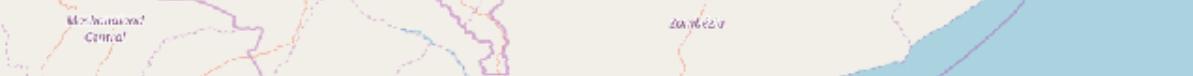
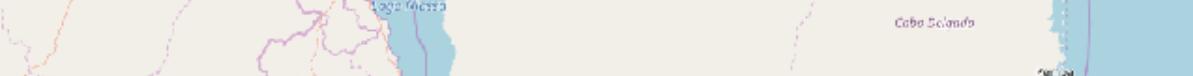
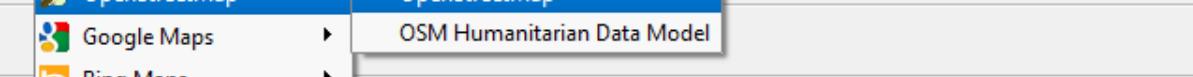
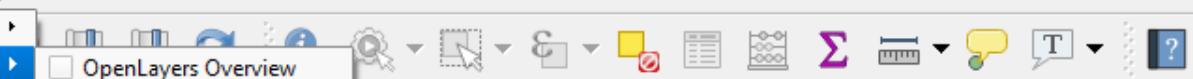


OpenMapKit









OPEN STREET MAP EXPORT TOOL



Veilig | https://export.hotosm.org/en/v3/exports/new/select/treetag

About Learn Create Exports Configs English Log Out

1 Describe 2 Formats 3 Data 4 Summary

Tag Tree Configs YAML

Search for a feature type... Clear

> Buildings
> Commercial
> Communication
> Education
> Emergency
> Financial
> Government
> Healthcare
> Humanitarian
> Land Use

Commercial
Geometry types: point, polygon
Keys:

- name
- opening_hours
- shop
- amenity
- tourism
- rooms
- beds

Where: shop IS NOT NULL OR tourism IS NOT NULL OR amenity IN ('marketplace','restaurant','fast_food','cafe','b...

Doa

Search for a location or enter a bounding box as 'minX, minY, maxX, maxY'

Tools

SEARCH

BOX

DRAW

THIS VIEW

IMPORT

ZOOM TO SELECTION

Area Of Interest (AOI)

Custom Polygon Draw

10 km

Mapbox OpenStreetMap contributors.

Contact Us Made with ❤ by HOT and friends Fork the Code

JOSM (JAVA OPEN STREET MAP)

The screenshot shows the Java OpenStreetMap (JOSM) editor interface. The main window displays a satellite map of a rural area with several buildings highlighted by orange bounding boxes. A message at the top left states: "Foto 'DigitalGlobe Premium Imagery' zou niet goed uitgelijnd kunnen zijn. Controleer zijn verschuiving met behulp van GPS-sporen!" with a link to "Details...".

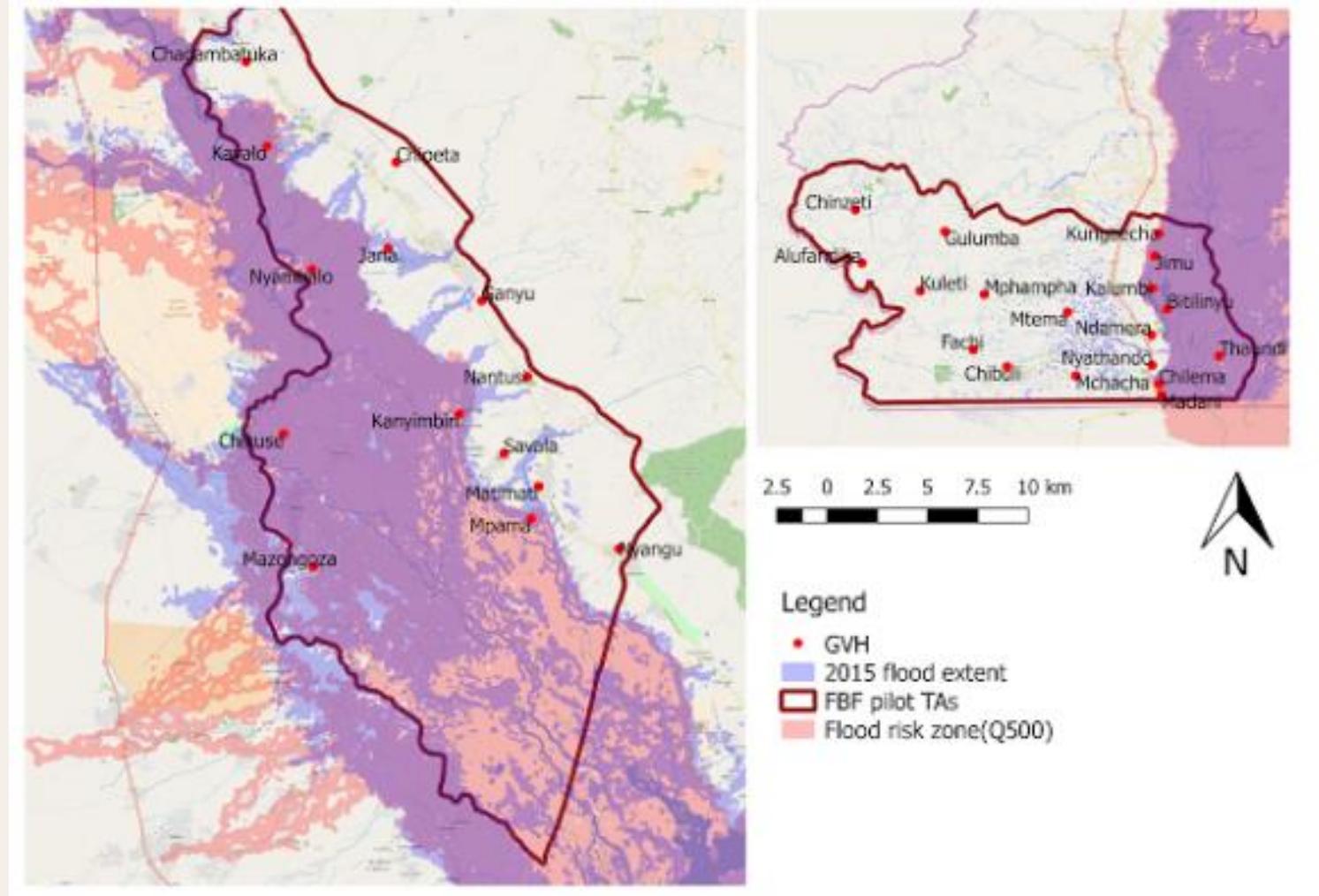
The left sidebar contains a vertical toolbar with various icons for editing, zooming, and selecting map features.

The right side of the interface features the "Tags / Leden" panel, which includes the following sections:

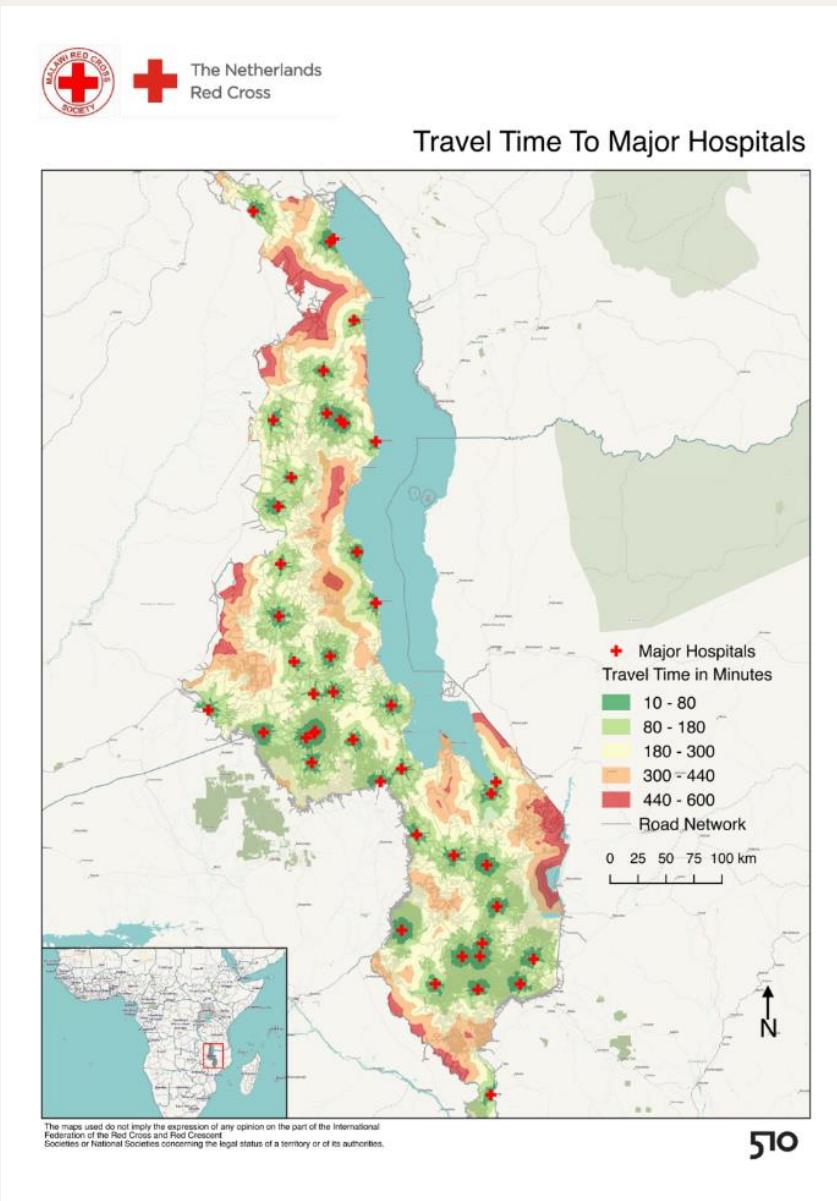
- Selectie:** Includes "Selecteren", "Zoeken", and "Geschiedenis".
- Conflict:** Includes "Oplossen" and "Selecteren".
- Validatieresultaten:** Includes "Selecteren", "Opzoeken", "Validatie", "Herstellen", and "Negeren".
- Filter Verborgen:** Shows "0 Uitgeschakeld:" and filters for "tekst", "node=water_point", and "conflict=true".
- Lagen:** Shows a tree view with checked items: "-omk-odk-submissions-MW_VCA_Household_v3.osm", "Bing luchtfotografie", and "DigitalGlobe Premium Imagery".
- Missing Maps Validation:** Includes validation status and navigation buttons.

At the bottom of the interface, there is a footer with copyright information: "© 2018 Microsoft Corporation © 2018 DigitalGlobe ©CNES (2018) Distribution Airbus DS".

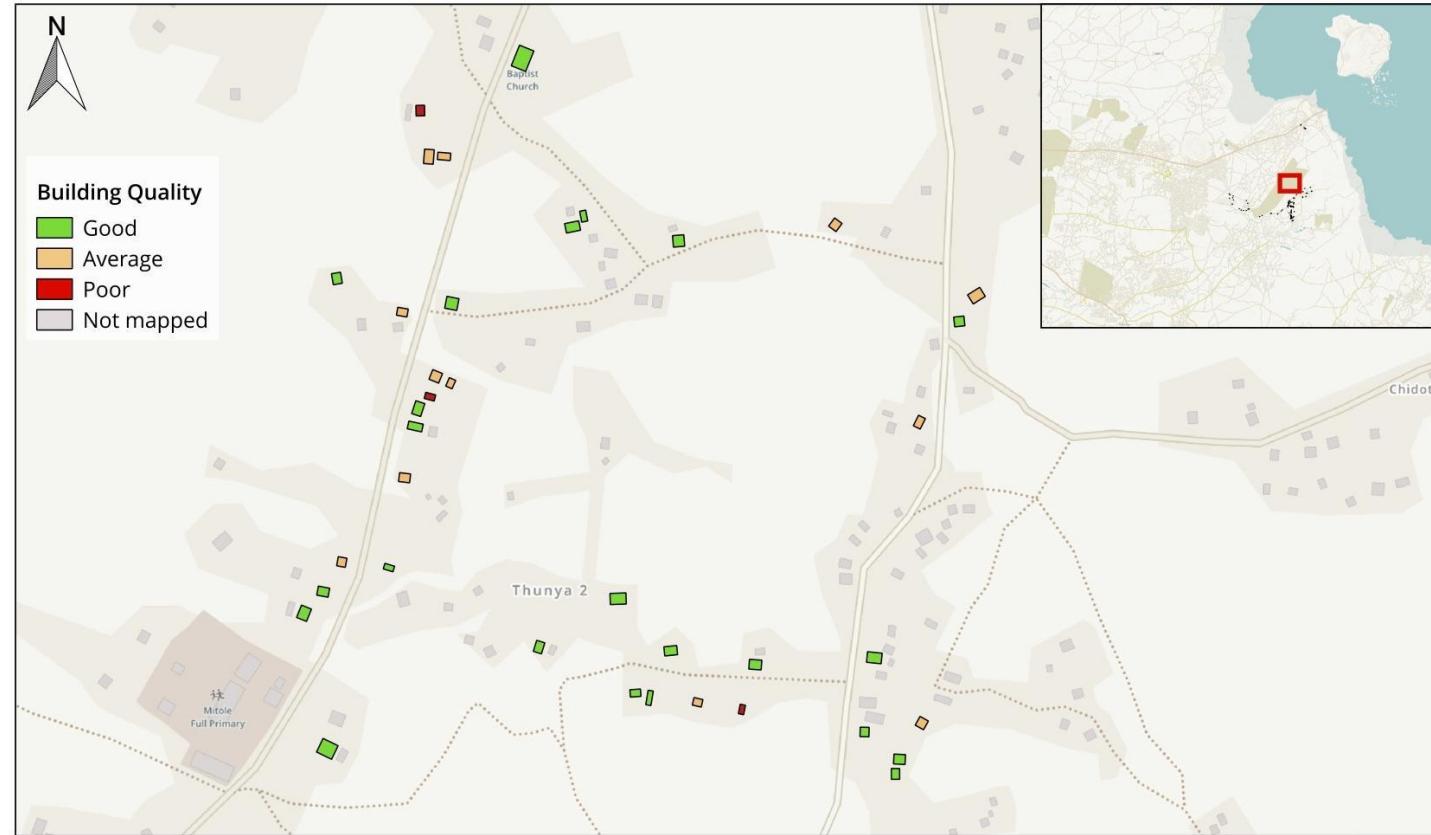
QGIS PRODUCTS – FLOOD ANALYSIS



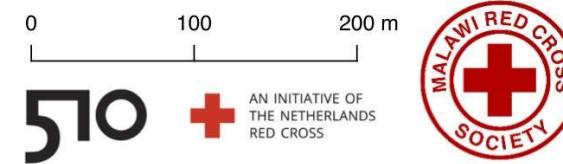
QGIS PRODUCTS - REMOTENESS INDICATOR



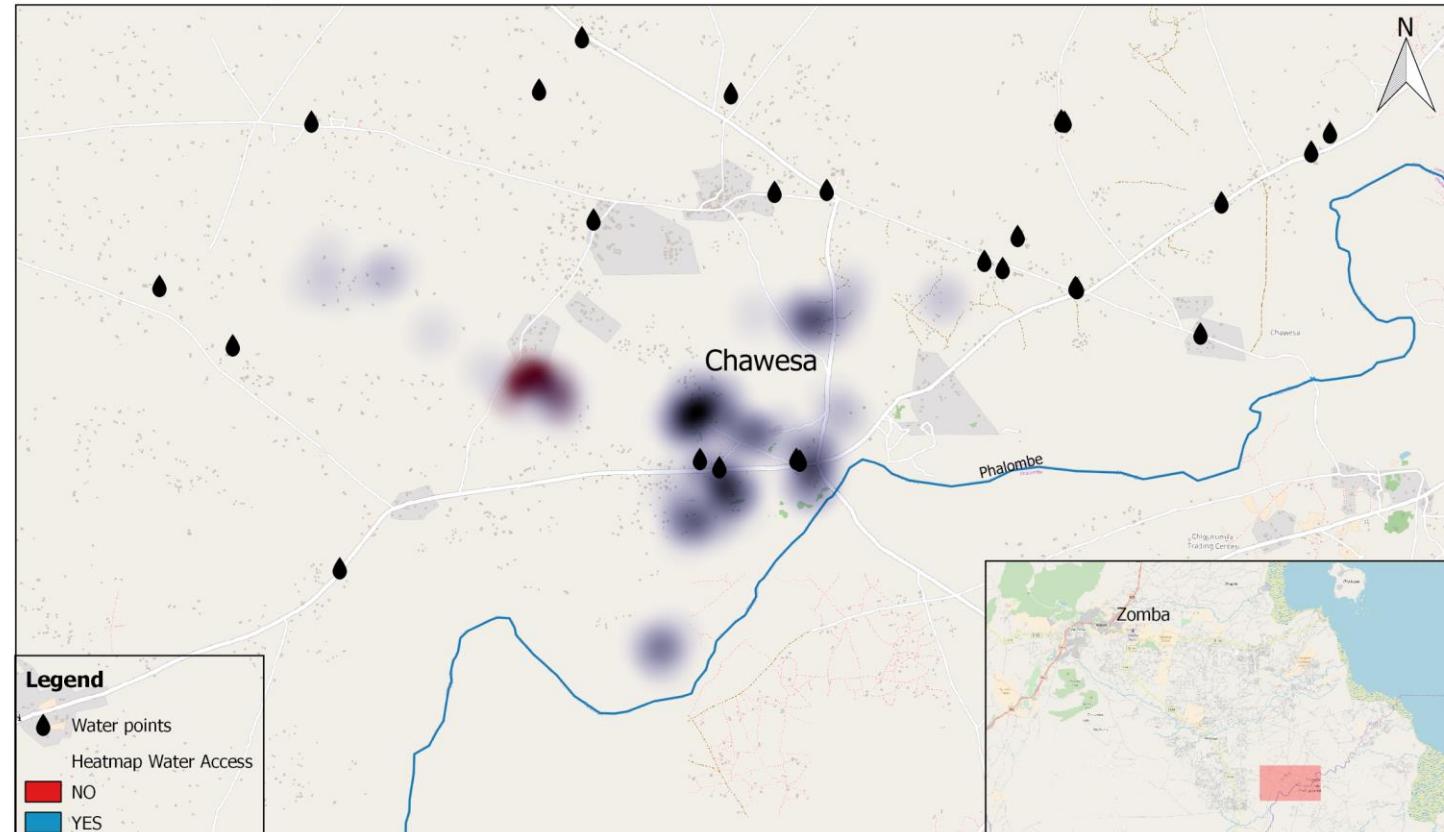
QGIS PRODUCTS - BUILDING QUALITY MAP



Data taken from household surveys collected by the Malawi Red Cross Society and 510 during the digitized VCA project of October 2017. Map created by 510 to accompany the 2017 MRCS VCA report.
Sources: OpenStreetMap, 510, MRCS
Date of Creation: 08/11/17



QGIS PRODUCTS - HEATMAP OF WATER ACCESS



Heatmap of Water Access in GVH Chawesa, TA Mwambo in October 2017

Heatmap of households with annual access to water, including mapped water points
From household surveys collected by the Malawi Red Cross Society and 510 during the
digitized VCA project of October 2017.

Sources: OpenStreetMap, 510, MRCS
Date of Creation: 15/11/17



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RECAP

DATA +  +  +  = UNDERSTANDING



RECAP



Thank you

FINAL PRODUCTS – FLOOD ANALYSIS

Aggregate Flood extent Map (Jan 10-21,2015)

Inundation/flood extent extracted by space agencies and international mapping partners using data provided by the International Charter and other initiatives. Source MASDAP

- Jan 10-21st 2015 Flood extent Map. Map is created by combining data from TerrasarX, Radarsat and Unosat
- Nasanje(TA Ndamera)
- Chikwaw(TA Makhuwira)

5 0 5 10 15 20 km

