

Support Campaign Planning and Delivery

Ona services to support service delivery

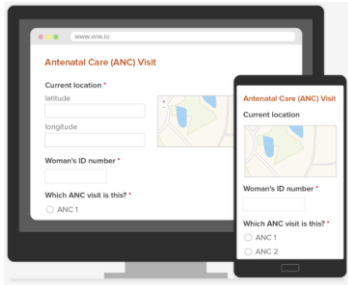


Our platforms

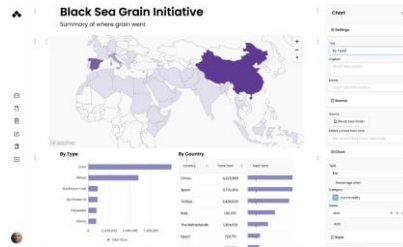
Ona Data, a mobile and web applications for offline data collection; Akuko, a map-intensive business intelligence tool; and OpenSRP, an open-source digital health platform.



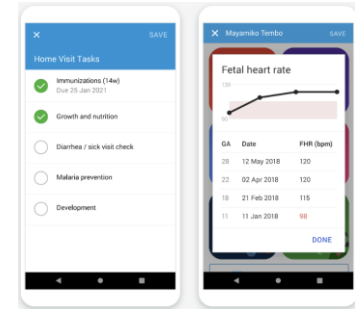
Mobile data collection platform used by thousands of organizations globally for data collection and real-time monitoring



A platform for creating custom data experiences, from business intelligence dashboards to beautiful maps and data portals



Open-source electronic health record platform designed for health workers and facilities in low connectivity environments

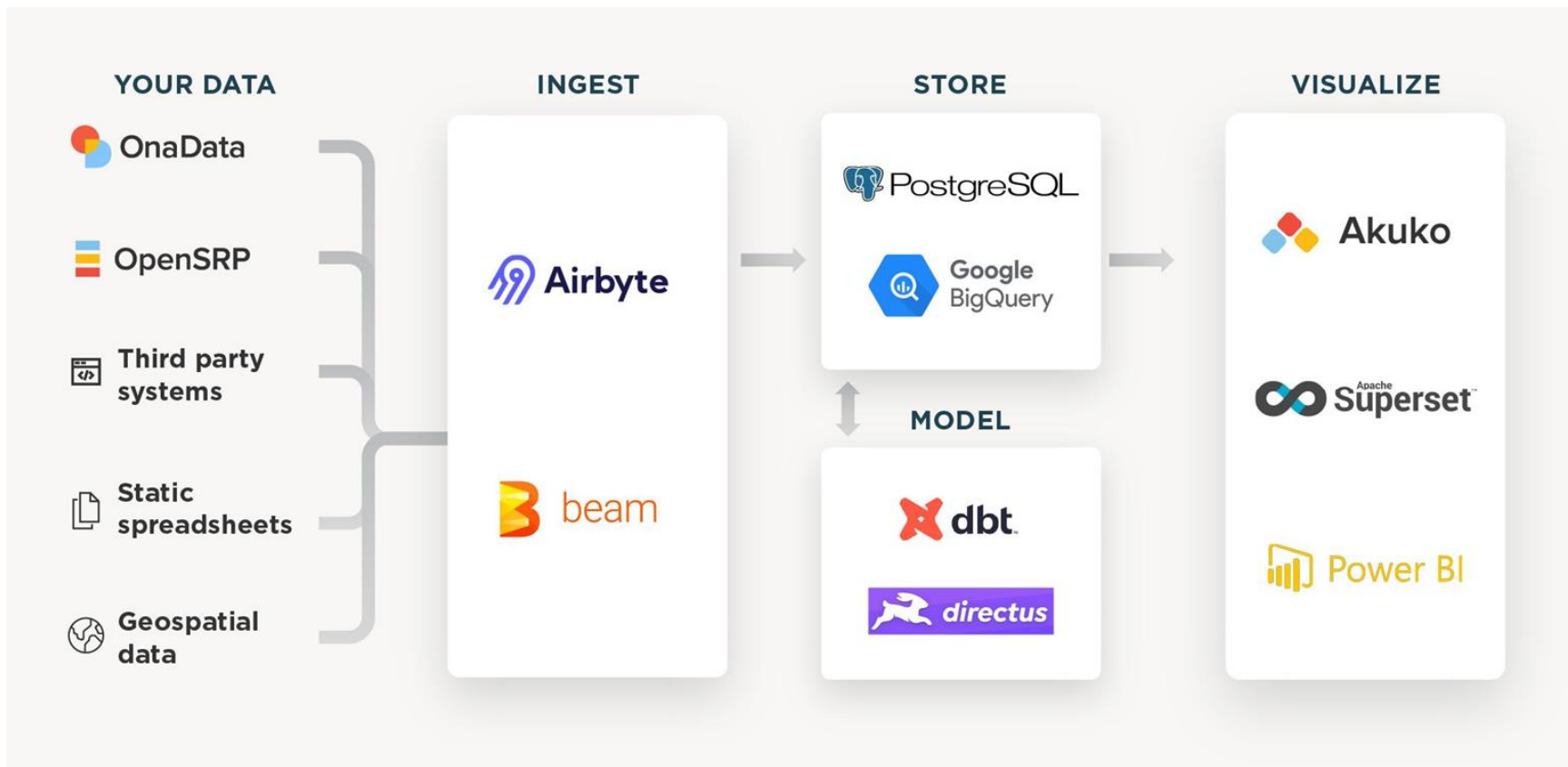


Helping you do amazing things with data

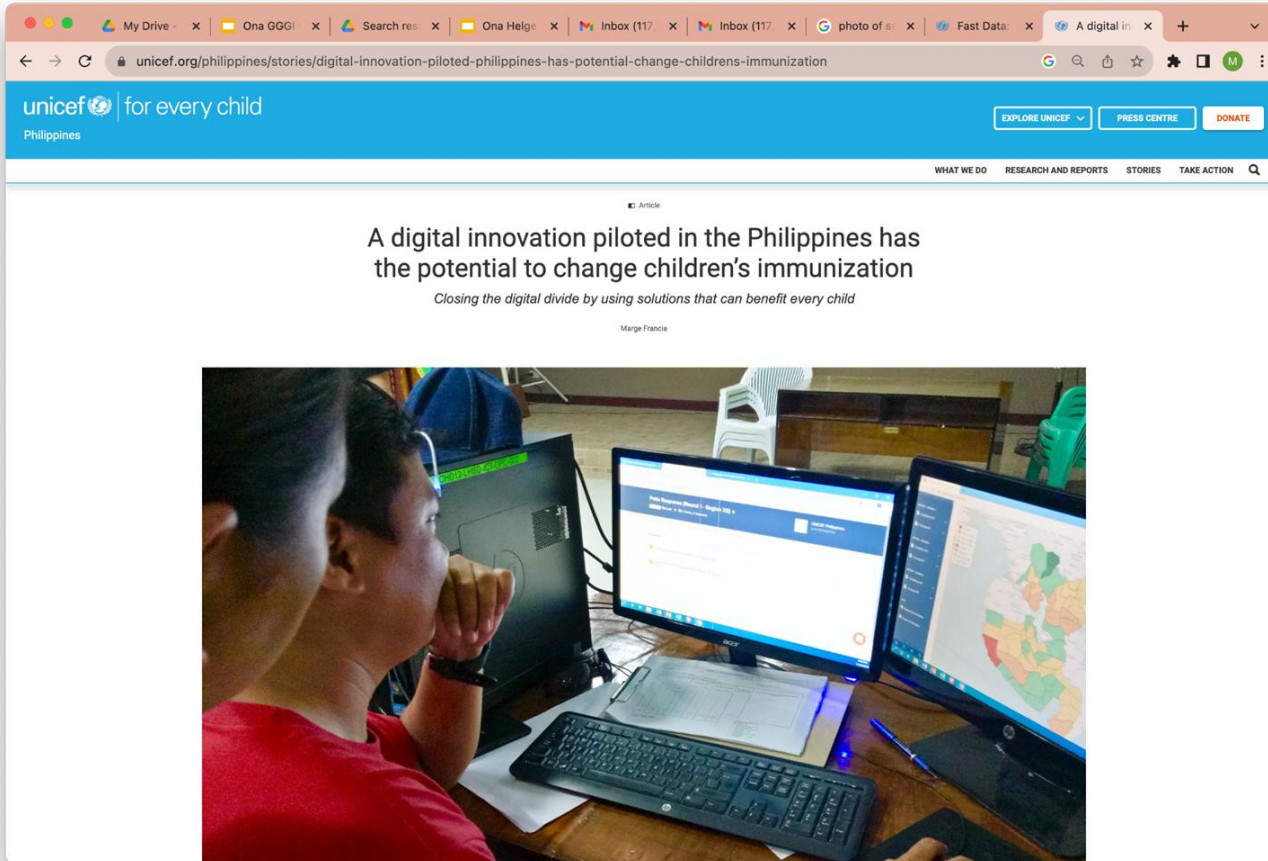
[Sign up](#) for our trusted mobile survey software or [explore our data solutions](#)

[Get Free Account](#)[▶ Watch how Ona works](#)

The screenshot displays the ONN web interface for monitoring forms. The top navigation bar includes the ONN logo, user profile 'ukanga', and the breadcrumb 'Monitoring Forms > Mali health facilities'. Below this, a secondary navigation bar shows 'Overview', 'Map' (highlighted), 'Table', 'Summary Charts', and 'Settings', with '1120 records' on the right. The main content area features a map of Bamako, Mali, with numerous red location markers. A mobile app interface is overlaid on the left, showing a form for 'Mali health facilities' with fields for 'Location' (with a map icon), 'Region' (Bamako), 'District' (Commune3), and 'ID' (ML38539). A detailed information panel on the right for 'Submission 42' lists: 'Submitted at 10:51 am on Aug 22, 2015', 'Record ID: 207189', 'Edit or Delete' link, 'Region: Bamako', 'District: Commune3', 'ID: ML38539', 'Structure: ASA9458B', 'Source: OMS Survey', 'Number of villages: 12', and 'Type: Urban'. A red speech bubble icon is visible in the bottom right corner of the interface.



Real Time Monitoring System Approach



Case Study 1 - UNICEF Real-time Vaccination Monitoring and Analysis (RT-VaMA)



DATA COLLECTION



InForm vaccination surveys

DATA STORAGE



Data Warehouse



DATA MODELING



SQL scripts

Custom component, code generated specifically for this project

ANALYSIS & VISUALIZATION



Power BI



Apache Superset™

*Arrows denote data flows



SPV Rapid Coverage Assessment



Last dashboard refresh: 09/11/2023

This dashboard is used to assess whether the targets were met during the vaccination campaign or a mop-up is needed in geographical areas where the targets were not met. The dashboard has an overview section that provides a summary of the number of children who have been vaccinated, number of doors visited and % of children vaccinated against the total number of children present in the doors visited. It also has a bar chart that shows the reason breakdown as to why the children were not vaccinated and the sources of information where the household received the campaign information.

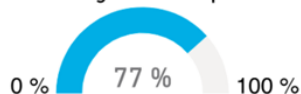
Vaccine administered Vaccine 1	RCA date (From - To) 24/02/2023 - 05/09/2023	Region All	Province All	Municipality All	Barangay All
--	--	----------------------	------------------------	----------------------------	------------------------

Summary Statistics

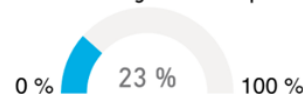
Text placeholder to be modified by UNICEF.

- Summary
- Vaccination Per Province
- Doors visited per geographic level

% children vaccinated against total present in the house



% children not vaccinated against total present in the house



No. of doors visited

47

Children present in the house

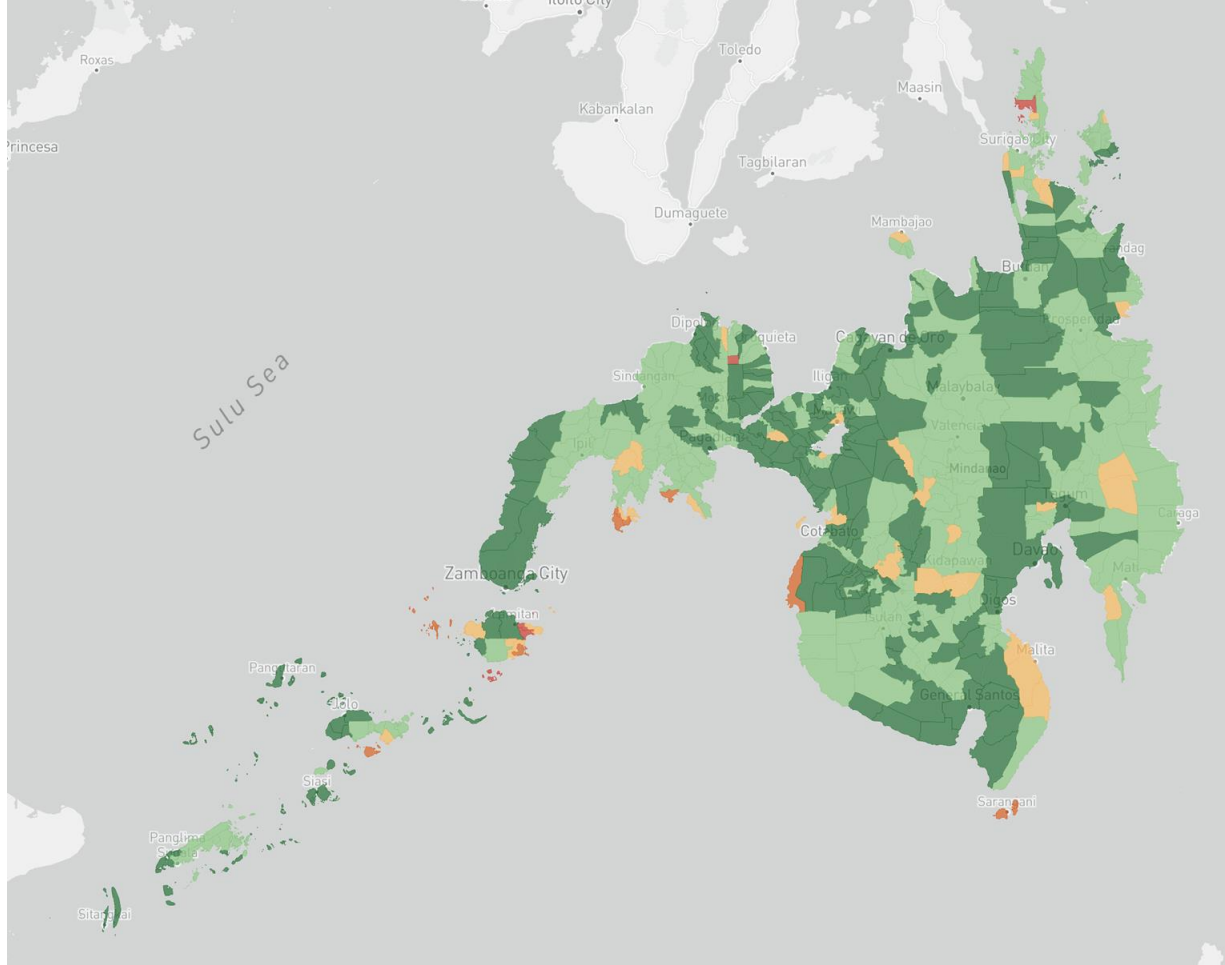
95

No. of children vaccinated

73

No. of children not vaccinated

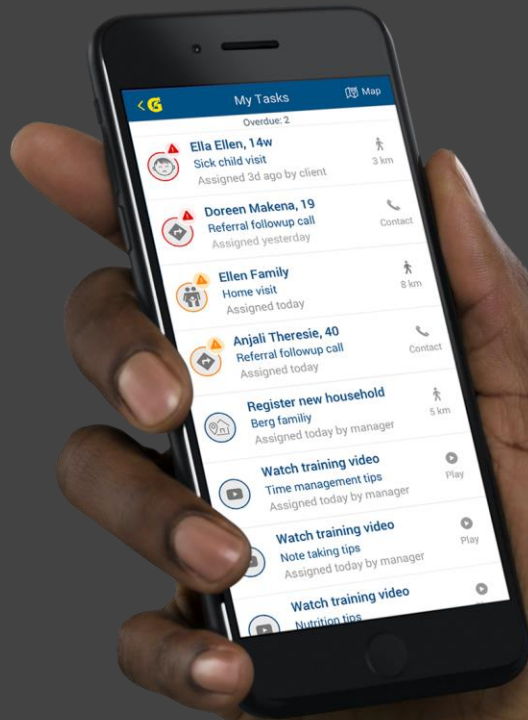
22



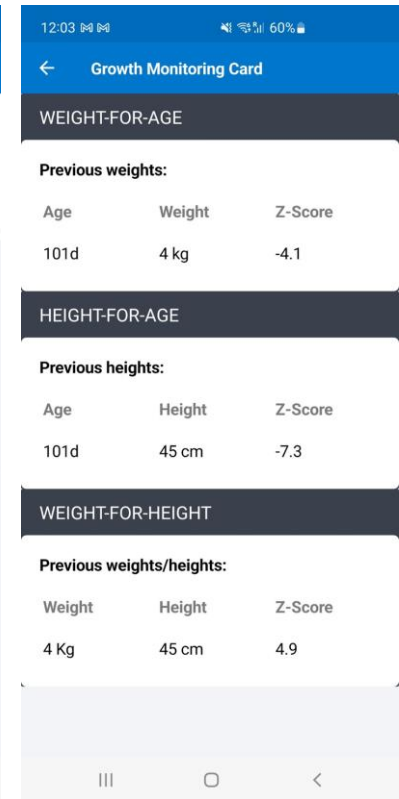
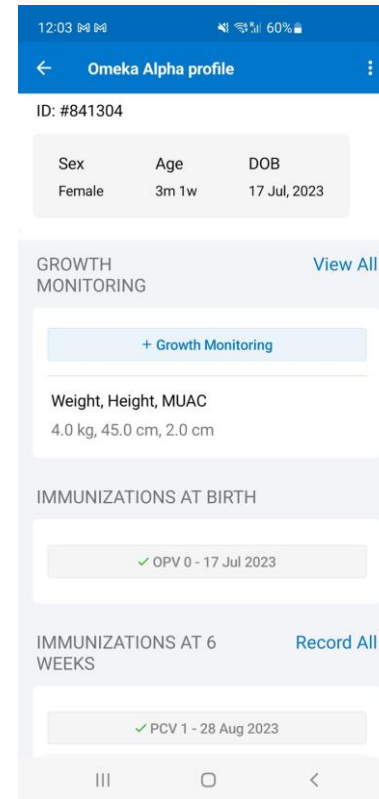
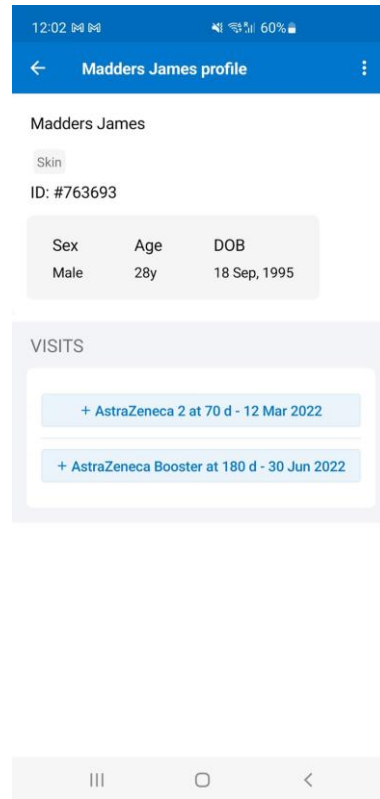
Polio Coverage Map Philippines

OPENSERP

Enabling WHO SMART Guidelines



- Register Adult and Child Patients
- Adult Immunization
 - e.g Covid 19
- Child Immunization for children under 5 as per WHO and MoH Guidelines
- Child Growth Monitoring
 - Z-Score



Zambia

ZEIR

Electronic Immunization Registry For Zambia, managing Adult Immunization such as Covid19 and Child Immunization and Child Growth Monitoring

Door-to-door household-based campaigns

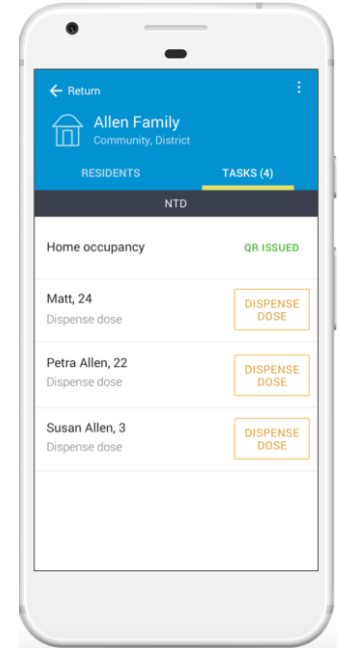
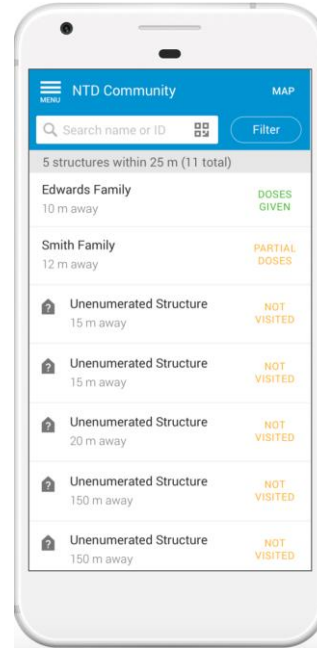
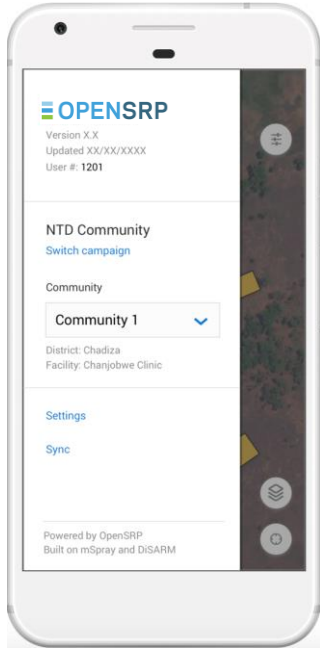
Ensure no one is missed

Register the location of each household with a GPS or linked to an existing structure on the map

Register each household member - include CP and biometric if available

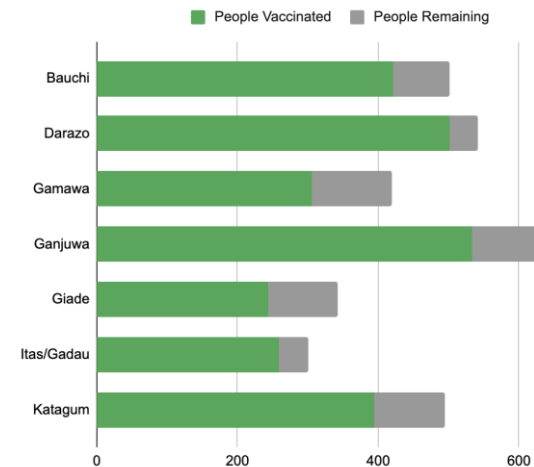
Record vaccine given and any other relevant information (including non-consent)

Automatically generate follow-up vaccine task if second dose is required



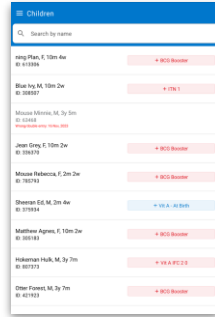
Monitor Campaign Progress in Real-time

Track which people and communities receive vaccine services and areas receive vaccination services



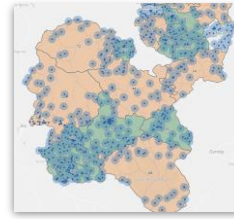
Set targets and manage human and vaccine resource planning

Addressing Zero Dose Children Requires a Health System Response



Children	
Search by name	
Isop Plas, 6, 10m 2w ID: 113396	+ BOS Routine
Blue Ivy, 14, 10m 2w ID: 108297	+ PVL 1
Moussou Minnie, 16, 3y 5m ID: 10544	+ BOS Routine
Joan Grey, 6, 10m 2w ID: 10543	+ BOS Routine
Moussou Rebecca, 6, 2m 2w ID: 105191	+ BOS Routine
Sherran Ed, 14, 2m 4w ID: 118194	+ VA A, Jd Bm
Matthew Agnes, 6, 10m 2w ID: 105191	+ BOS Routine
Hickman Hall, 16, 3y 7m ID: 102719	+ VA A, PCD
Oter Forest, 16, 3y 7m ID: 102719	+ BOS Routine

Facility EIR



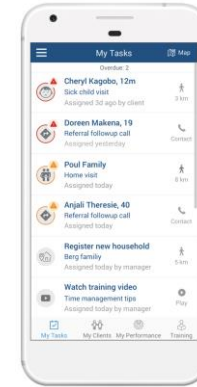
Microplanning



Campaigns



Patient Health Records



CHWs

unicef 

 End User Supply Monitoring

ONN



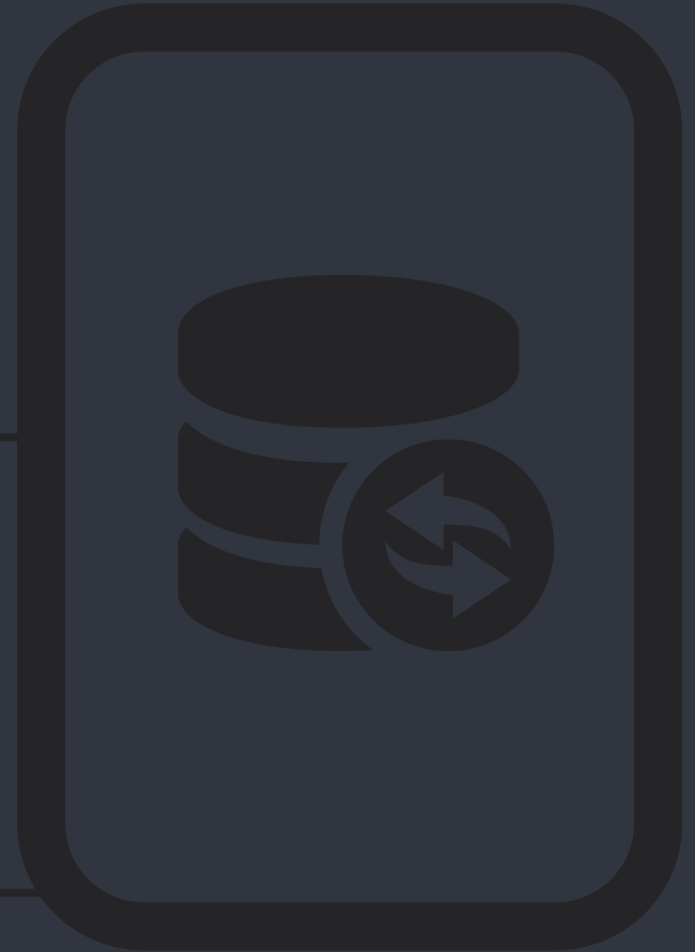


ONN

Akuko is a no-code platform for creating data stories, dashboards, maps, and apps.

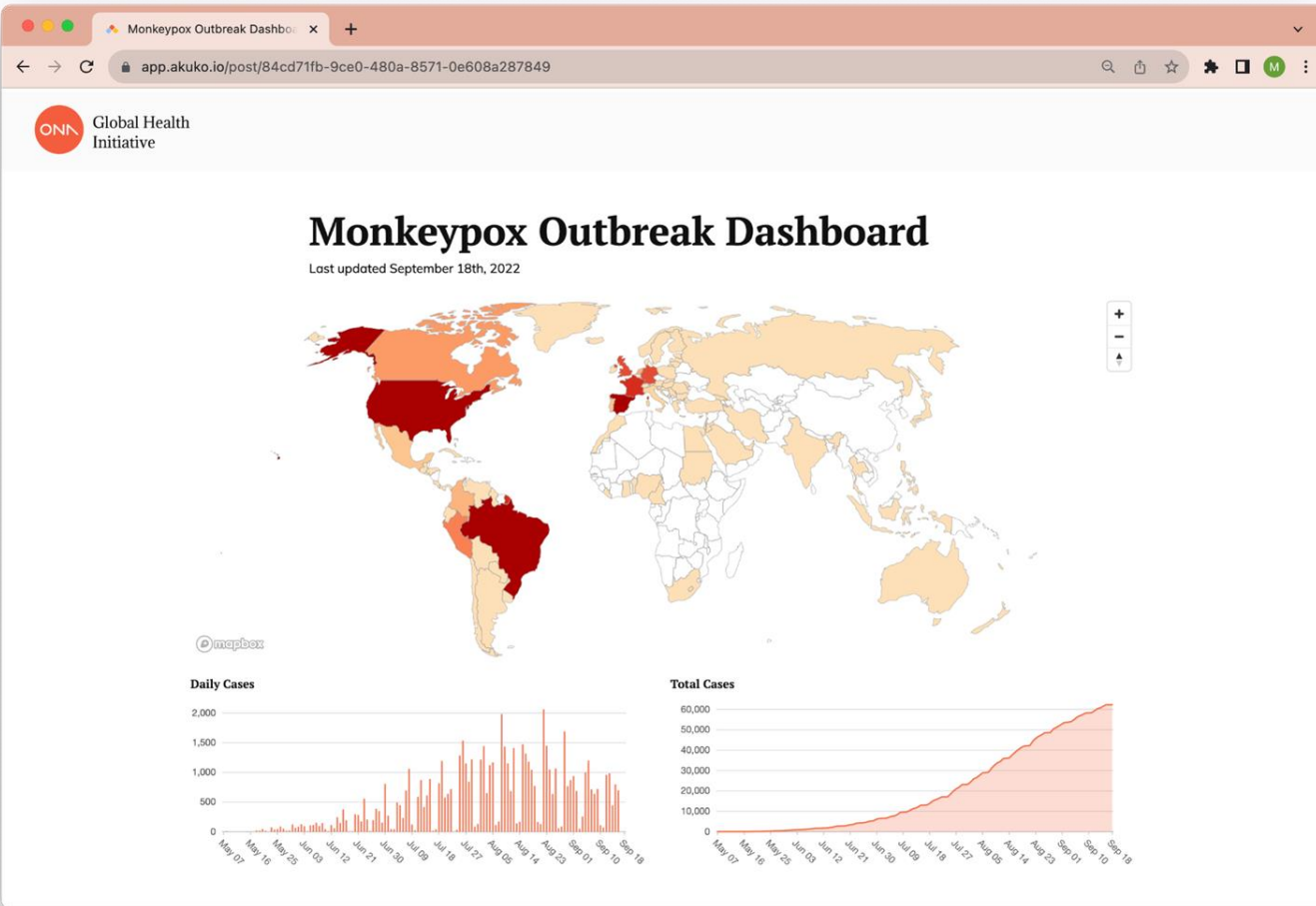


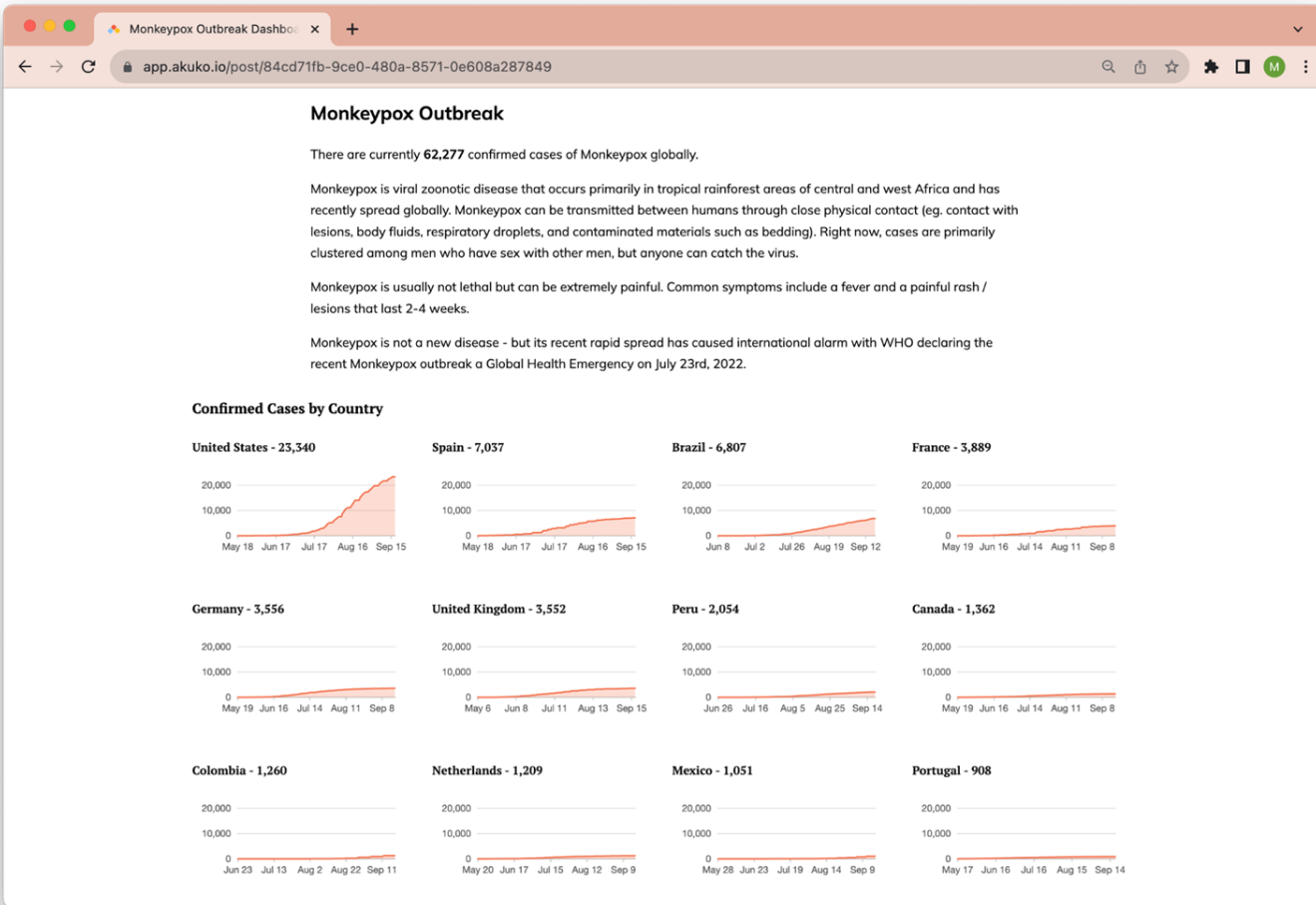
Connect your data to Sources.



Build Posts using components.







Payment Transactions R... UNICEF Zimbabwe ESC... My Drive - Google Drive... ONA Case Management... Map Kibera Waterpoint... New Tab

app.akuo.io/post/9c2f6be3-a639-47c4-83d4-ada26f311272/edit

Preview Save

MAP KIBERA

Kibera Mathare

Operational Non-Operational

TYPE Select...

Water points marked on the map include: NHC Lang'ata Court, National Housing Corporation, Kibera South Health Center, St. Mary's Clinic, St. Mary's Albert Memorial, Royal Medical & Maternity, beyond zero hospital, slummedical clinic, Senator Darajani Bar, MSF Belgium Clinic, K19 SHILO WWA, and Vipawa Health Services.

© Mapbox © OpenStreetMap Improve this map © Maxar

Payment Transactions R... UNICEF Zimbabwe ESC... My Drive - Google Drive... ONA Case Management... Map Kibera Waterpoint... New Tab

app.akuko.io/post/9c2f6be3-a639-47c4-83d4-ada26f311272/edit

Preview Save

Operational Non-Operational

TYPE
Select...

Name: Kwa shule
Type: piped_tap
Status: non_operational
Hours: Mo-Su 06:00-22:00

Close

mapbox


Mapbox © OpenStreetMap Improve this map © Maxar

Child Friendly NDC | About - x +

app.akuko.io/post/71fa0c1-f567-4f78-aed3-10d4b64993ab

unicef | for every child
NDCs for every child Data Platform

About Global Dashboard Interactive Map Country/Party Profiles Methodology Resources Stories



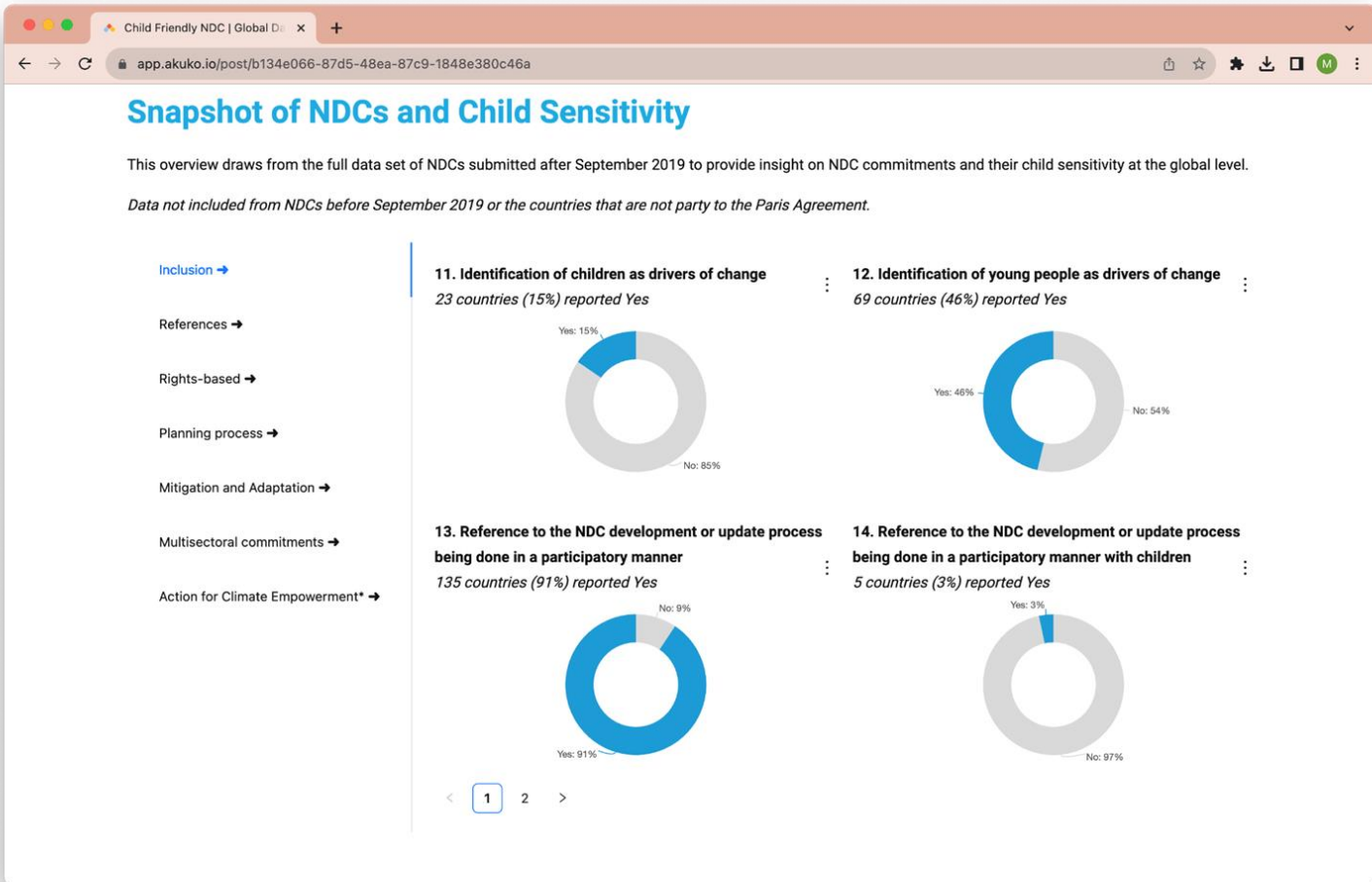
Child-sensitive climate policies for every child

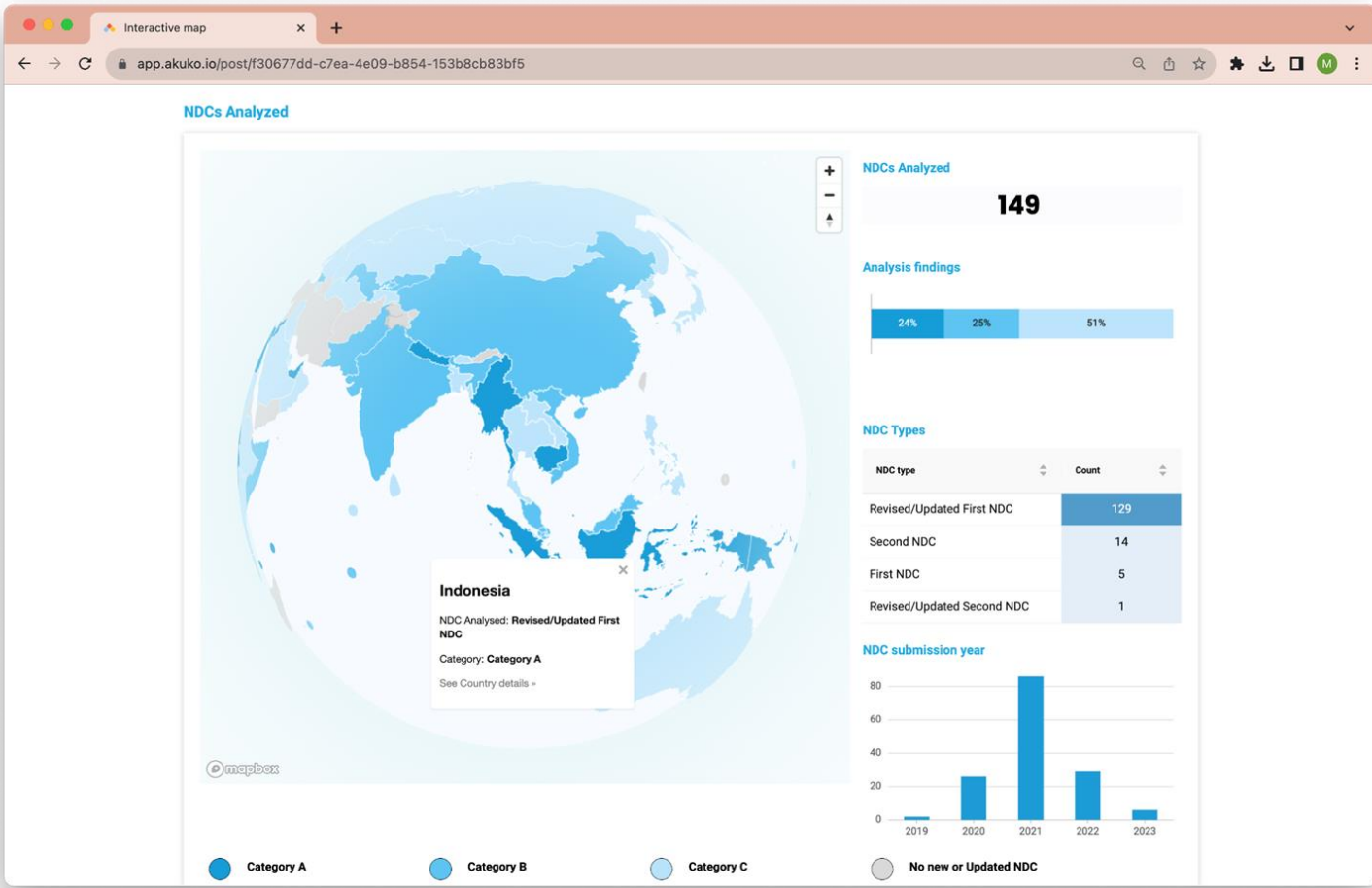
© 2022 UNICEF/UN0668955/Josué Mulala

Children and young people often experience the most serious consequences from climate and environmental hazards, shocks and stresses. They are not only facing a

[What are NDCs?](#)








Interactive map

app.akuko.io/post/f30677dd-c7ea-4e09-b854-153b8cb83bf5

NDCs by country/party

Albania




NDC child sensitivity

Criteria 1 References to children and young people	Yes
Criteria 2 Rights-based	Yes
Criteria 3 Holistic and multisectoral	No
Criteria 4 Inclusive of children and young people	Yes

[See details >](#)

Andorra




NDC child sensitivity

Criteria 1 References to children and young people	Yes
Criteria 2 Rights-based	Yes
Criteria 3 Holistic and multisectoral	Yes
Criteria 4 Inclusive of children and young people	Yes

[See details >](#)

Angola




NDC child sensitivity

Criteria 1 References to children and young people	Yes
Criteria 2 Rights-based	No
Criteria 3 Holistic and multisectoral	No
Criteria 4 Inclusive of children and young people	No

[See details >](#)

Antigua and Barbuda




NDC child sensitivity

Criteria 1 References to children and young people	Yes
Criteria 2 Rights-based	Yes
Criteria 3 Holistic and multisectoral	Yes
Criteria 4 Inclusive of children and young people	Yes

[See details >](#)

Argentina




NDC child sensitivity

Criteria 1 References to children and young people	Yes
Criteria 2 Rights-based	Yes
Criteria 3 Holistic and multisectoral	Yes
Criteria 4 Inclusive of children and young people	Yes

[See details >](#)

Armenia



NDC child sensitivity

Criteria 1 References to children and young people	Yes
Criteria 2 Rights-based	No
Criteria 3 Holistic and multisectoral	No
Criteria 4 Inclusive of children and young people	Yes

[See details >](#)

Country/party profile

app.akuko.io/post/c3889d0f-f1a2-44ca-96eb-f79ed0f72167#country=Indonesia


Country/party profile

Demographic and NDC assessment information for each country

Country demographic information and findings on child sensitivity within NDCs. Countries that were not part of this study analysis are not listed on this page.

To gain a greater understanding of child vulnerabilities and exposure to hazards, the profiles also include ranking data from [UNICEF's Children's Climate Risk Index \(CCRI / Atlas\)](#). The CCRI provides a comprehensive picture of children's exposure and vulnerability to multiple climate and environmental shocks and stresses.

COUNTRY/PARTY
Indonesia



273.75M	30%	
Population*	Population Under 18*	
CCRI	Pillar 1	Pillar 2
6.5	8.1	4.2
Children's Climate Risk Index (CCRI) - Children's exposure and vulnerability to the impacts of climate change	Children's Climate Risk Index, pillar 1 - Climate and environmental shock exposure	Children's Climate Risk Index, pillar 2 - Child vulnerability

Currently the CCRI does include Small Island Developing States (SIDS) and microstates with a land area less than 20,000 km² due to data availability limitations. However, many SIDS and microstates face serious and existential threats due to climate change that are not adequately reflected in the data, and not captured appropriately in a multi-hazard index.

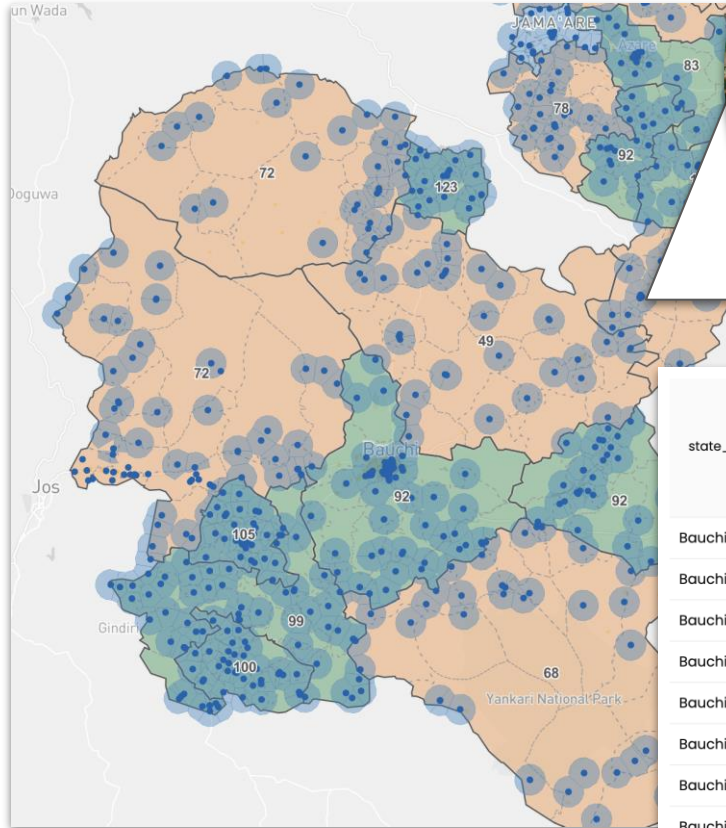
The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. The size of the dots designated for small nations does not represent the maritime territory of the country but assigned to better locate the country on the map. International boundaries are represented by solid lines, armistice or international administrative lines are represented by dashed lines, and other lines of separation are represented by dotted lines.

The **CCRI** is composed of many indicators across climate and environmental hazards, shocks and stresses, as well as child vulnerability to indicate children's climate risk as **Extremely High** (7.1-10), **High** (5.5-7), **Medium**

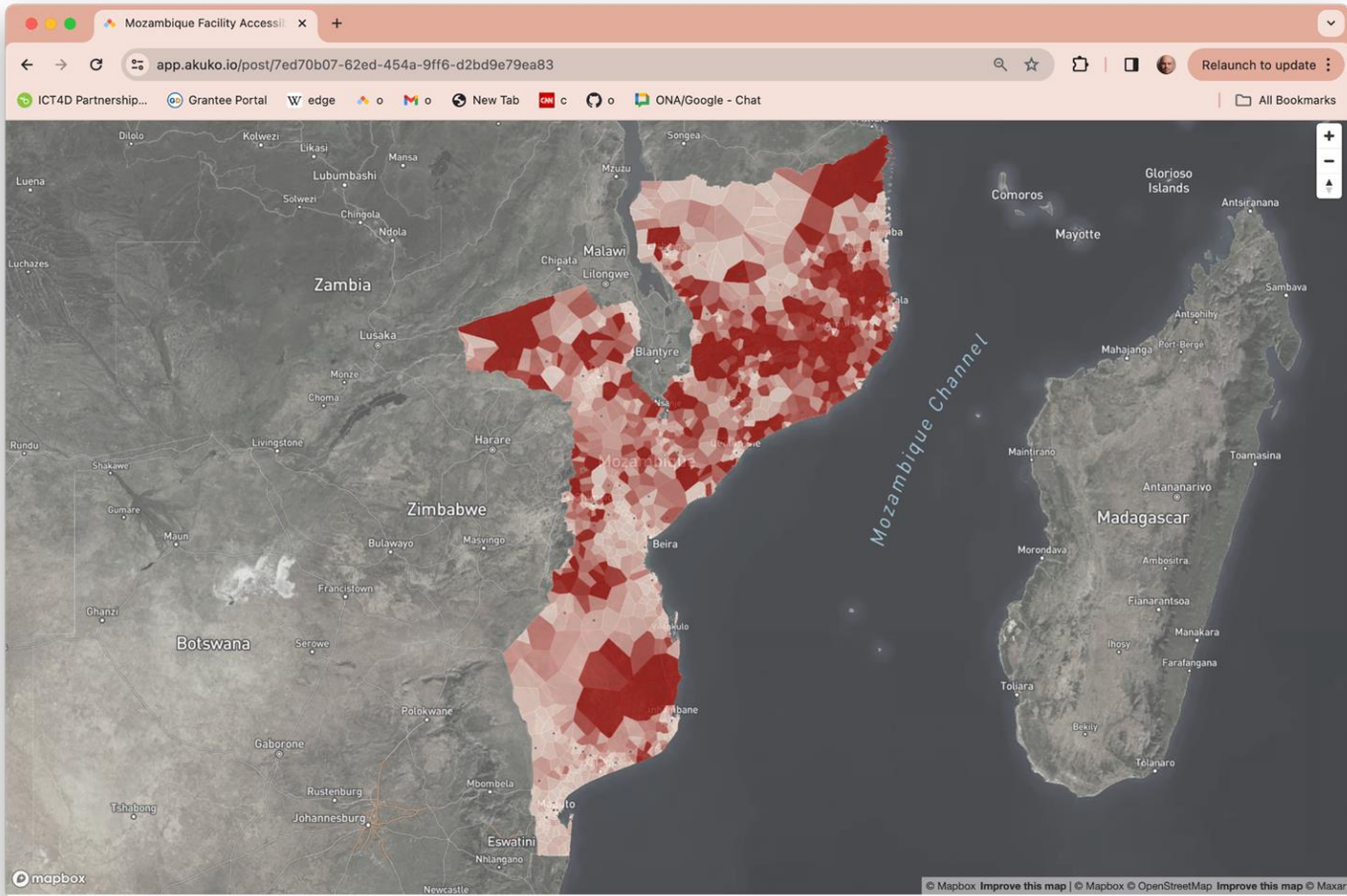
Microplanning for Vaccine Distribution

Estimate, map and prioritize distribution of Covid-19 vaccine to target populations. This includes new target group (elderly, health workers, comorbidities, etc) that we know little about.

Ability to link automatically to population data sources like GRID3 and building footprints extracted from high resolution satellite imagery.

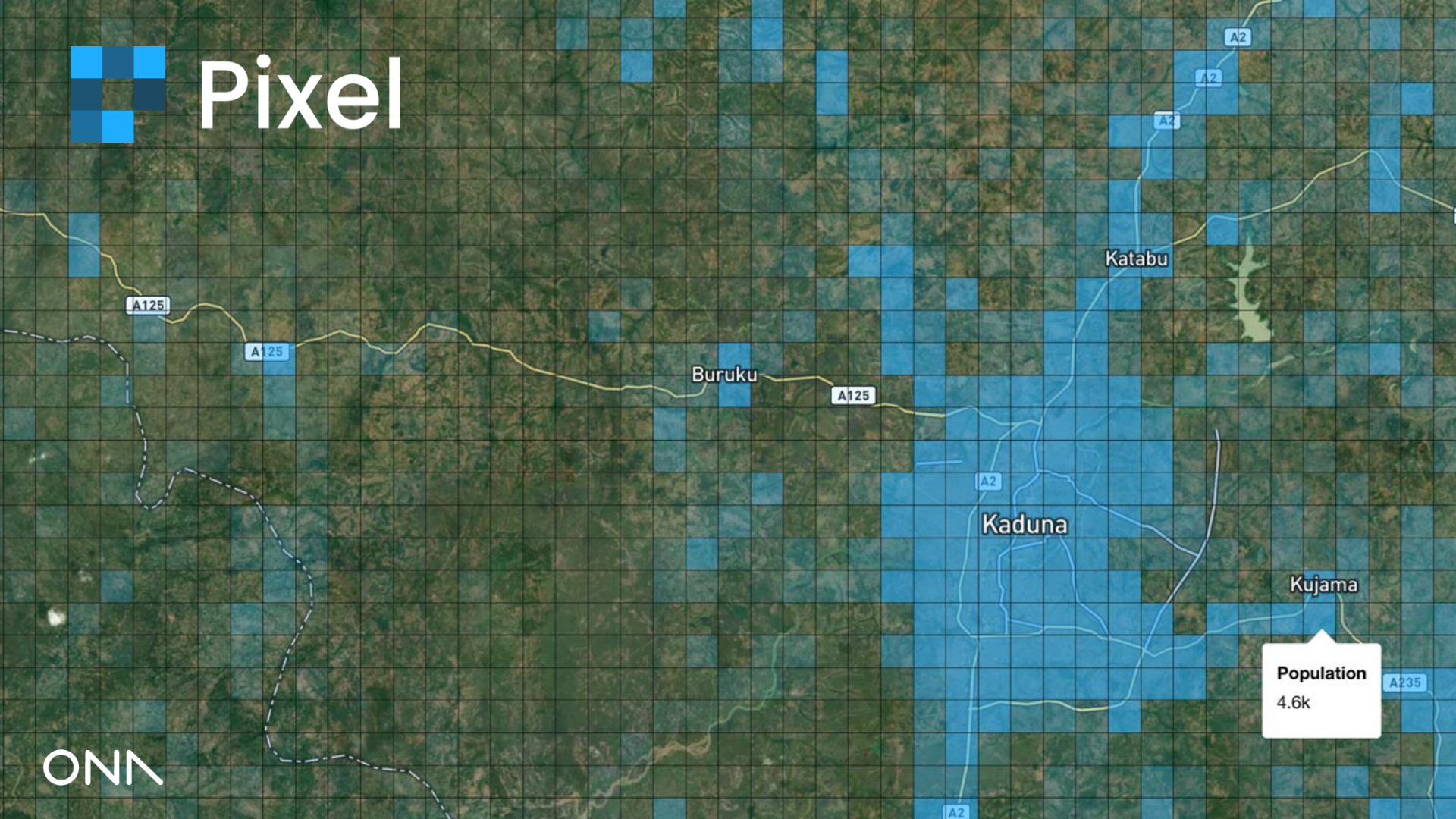


state_name	lga_name	Population GRID3	People Within 5km of Facility GRID3	People Missed GRID3	Coverage Perc
Bauchi	Alkali	434,662	296,522	138,140	68%
Bauchi	Bauchi	1,327,680	1,216,776	110,904	92%
Bauchi	Darazo	449,294	333,641	115,653	74%
Bauchi	Gamawa	389,082	237,303	151,779	61%
Bauchi	Ganjuwa	591,486	290,307	301,179	49%
Bauchi	Giade	233,067	213,947	19,120	92%
Bauchi	Itas/Gadau	323,442	240,748	82,694	74%
Bauchi	Katagum	610,828	507,943	102,885	83%





Pixel



A125

A125

Buruku

A125

Katabu

Kaduna

Kujama

Population

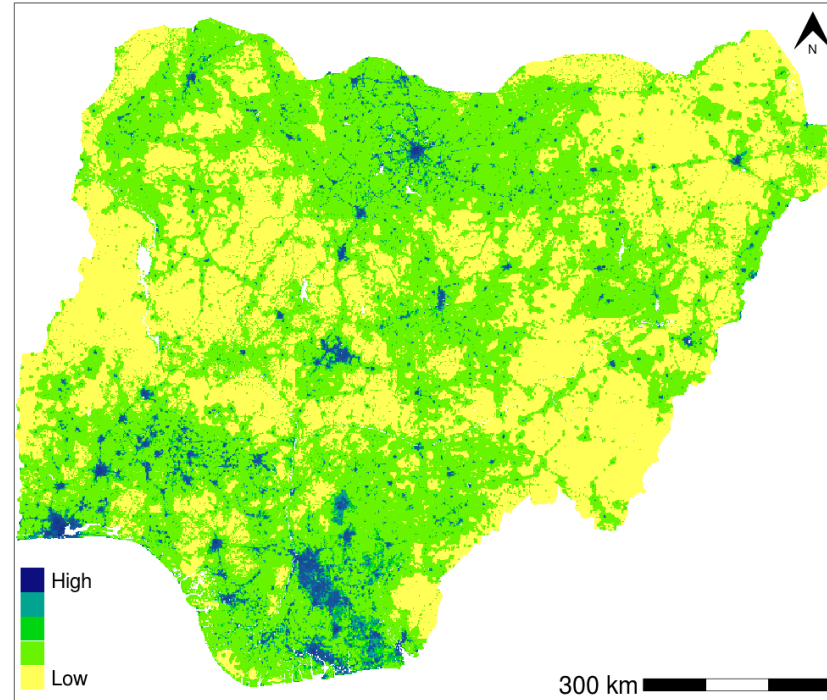
4.6k

A235

ONN

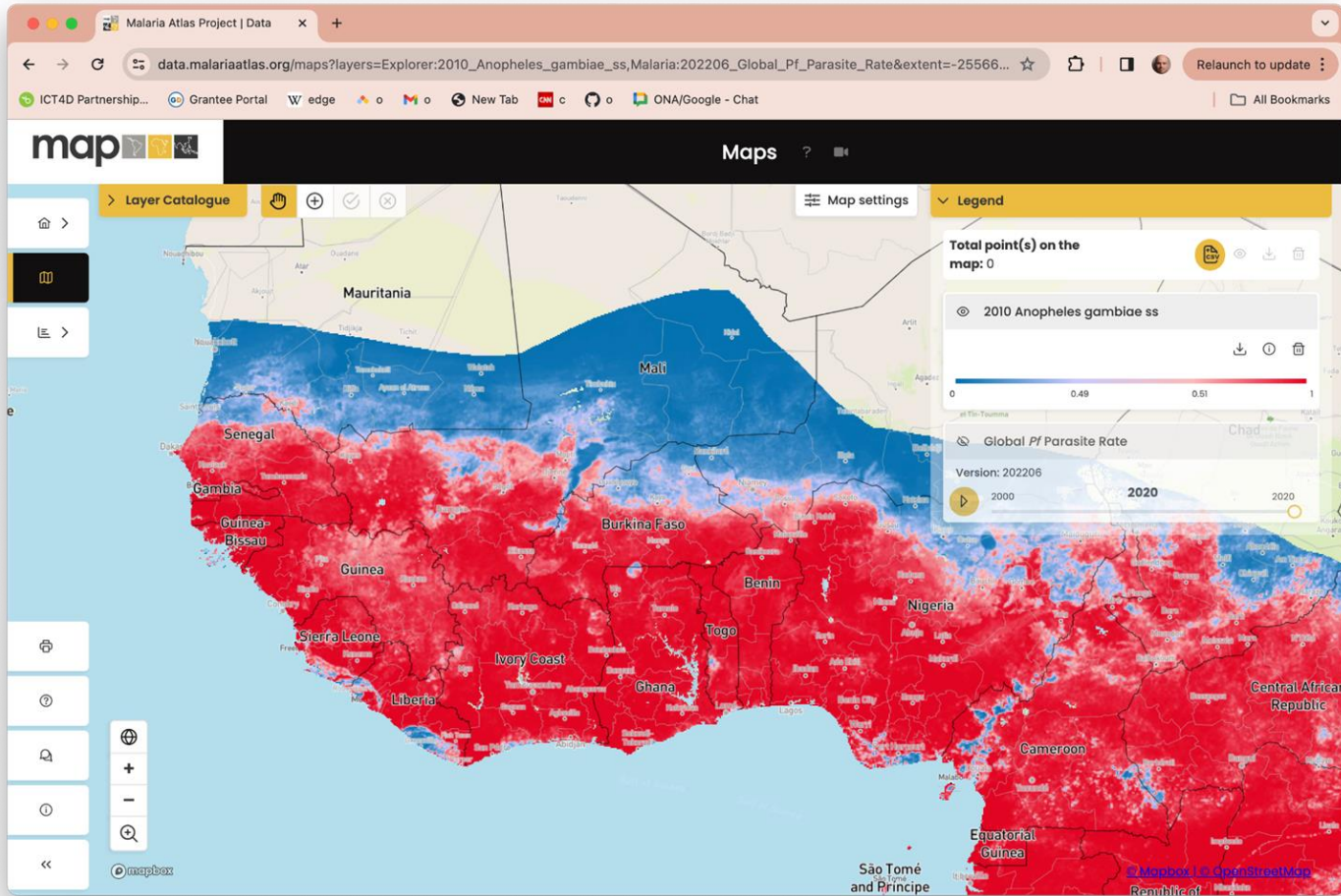
Nigeria population 2020

Estimated total number of people per grid-cell at a resolution of (3 arc seconds approximately 100m at the equator)



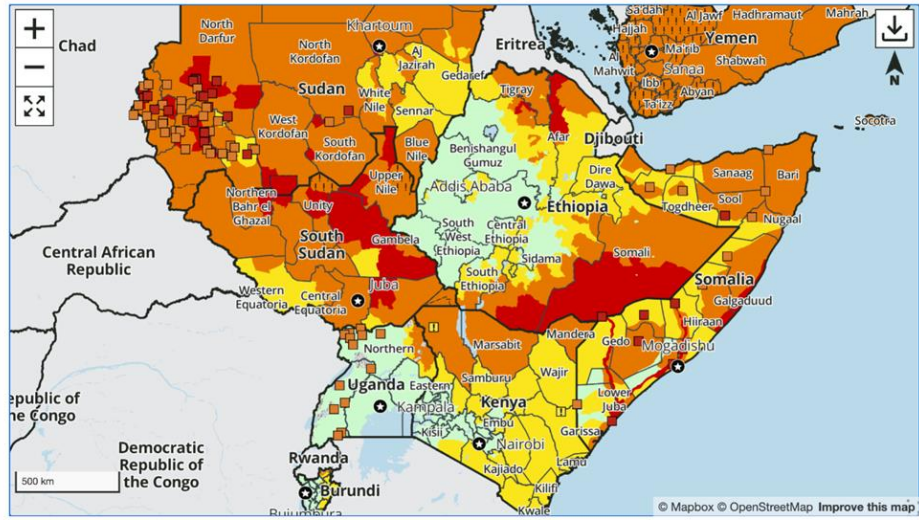
WorldPop (www.worldpop.org – School of Geography and Environmental Science, University of Southampton; Department of Geography and Geosciences, University of Louisville; Département de Géographie, Université de Namur) and Center for International Earth Science Information Network (CIESIN), Columbia University (2018). Global High Resolution Population Denominators Project – Funded by the Bill and Melinda Gates Foundation (OPP1134076). <https://dx.doi.org/10.5258/SOTON/WP00645>

©2018 This work is licensed under a Creative Commons Attribution 4.0 International License



East Africa Acute Food Insecurity

November 2023 - January 2024 projected outcomes



IPC 3.1 ACUTE FOOD INSECURITY CLASSIFICATION Reported in November 2023
 Click on a geographic unit to view its Integrated Phase Classification history

Presence Countries

- 1: Minimal
- 2: Stressed
- 3: Crisis
- 4: Emergency
- 5: Famine

National Parks/Reserves

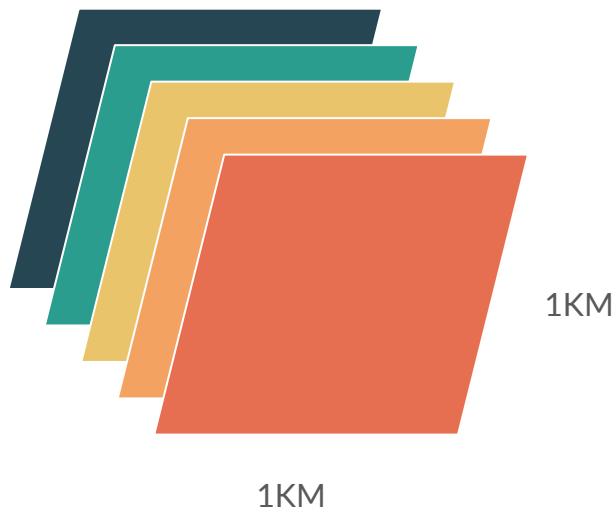
Symbols

- Settlement of displaced populations
- ! Would likely be at least one phase worse without current or planned humanitarian food assistance



FEWS NET classification is [IPC](#) compatible. IPC-compatible analysis follows key IPC protocols but does not necessarily reflect the consensus of national food security partners. As of IPC 3.0, the IPC no longer assesses the impact of food assistance on classification and thus no longer maps the (!). However, FEWS NET continues to produce food security maps inclusive of the (!) as well as maps compatible with IPC 3.0/3.1, which include the mapping of food assistance here.

Anatomy of a Pixel



Spatial Data Layers

- Admin area. Eg. Kanu / Kiru
- Population, Building Count
- Driving Time to nearest facility
- Malaria rate, Vector, ITN Usage
- Health facilities, Schools, Settlements
- Crop Usage
- Elevation

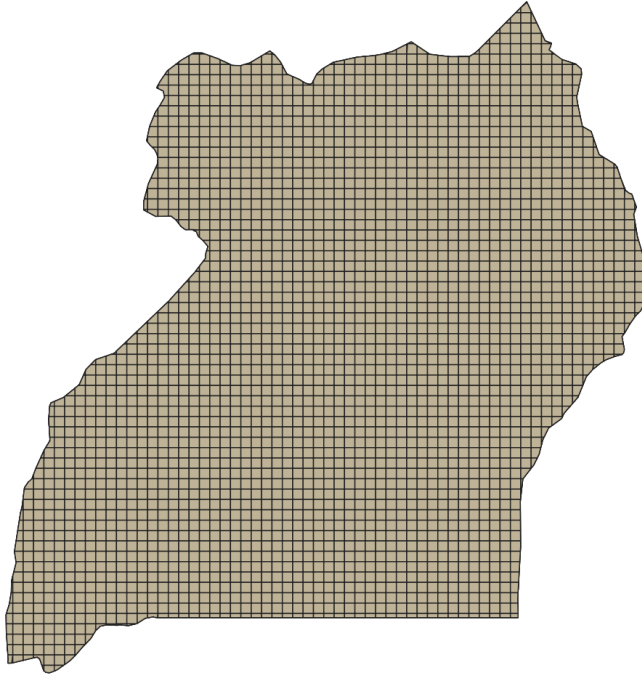
Pixel Geindex

Each pixel is assigned a unique ID based on the quadkey geo-indexing system. The quadkey system splits up the world into a grid of tiles with each subsequent zoom level being split into 4 tiles.

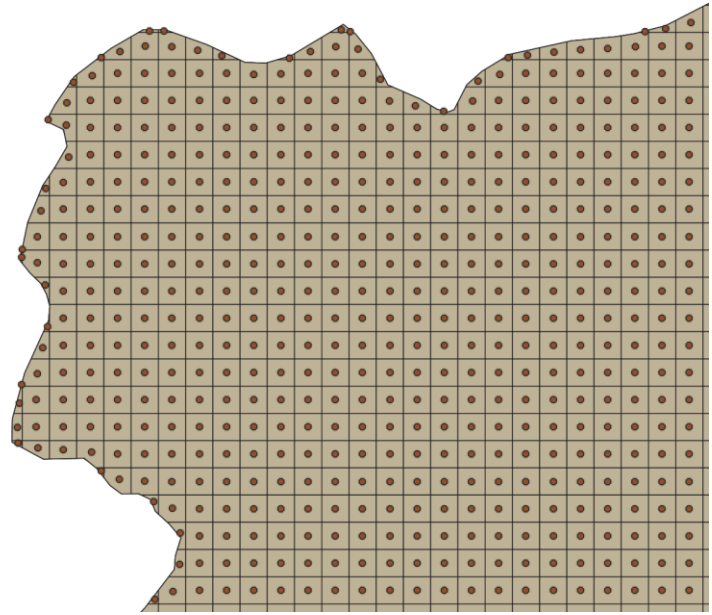
The quadkeys make it easy to convert GPS coordinates back and forth to quadkeys.



Spatial Data → Pixels

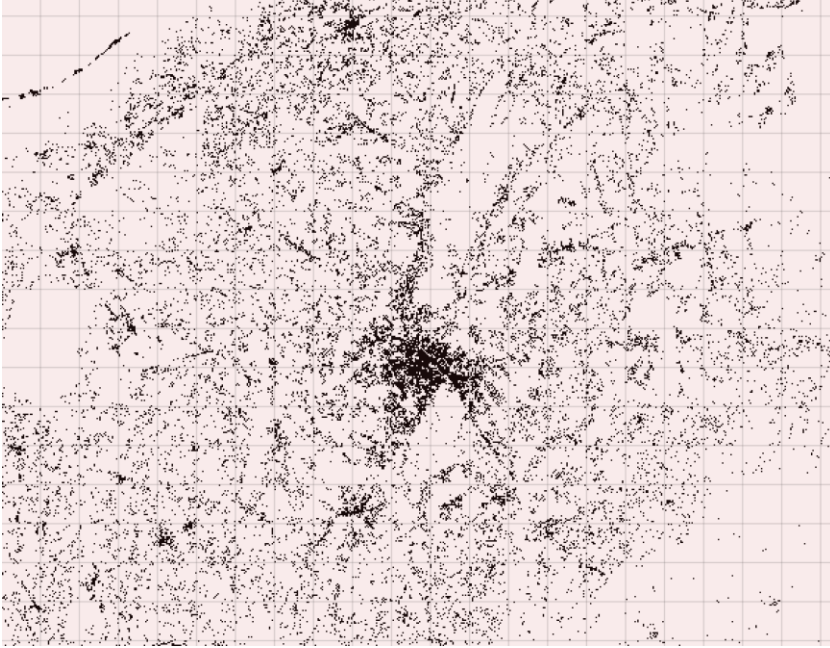


Quadkey grid level 15 (1 km) for Uganda.

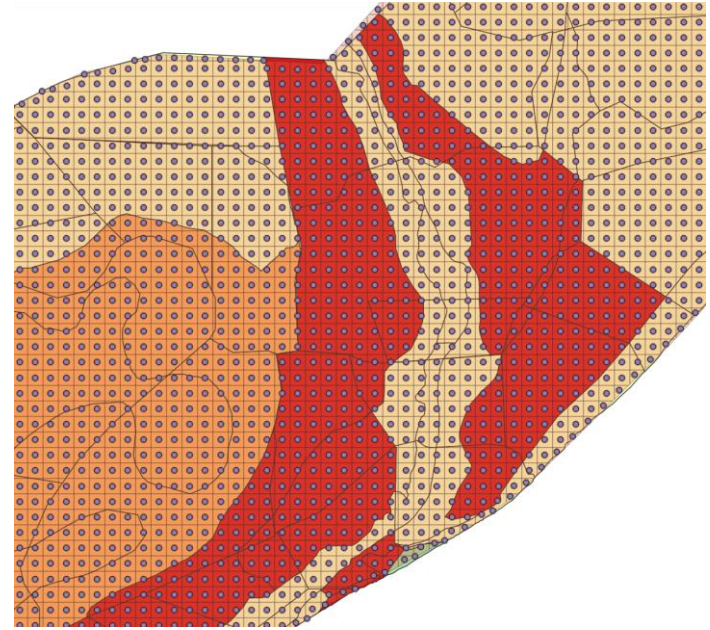


Centroids from each grid cell are calculated and stored as properties.

Spatial Data → Pixels



Raster Data - We use zonal stats to sum or average the raster data for each pixel.



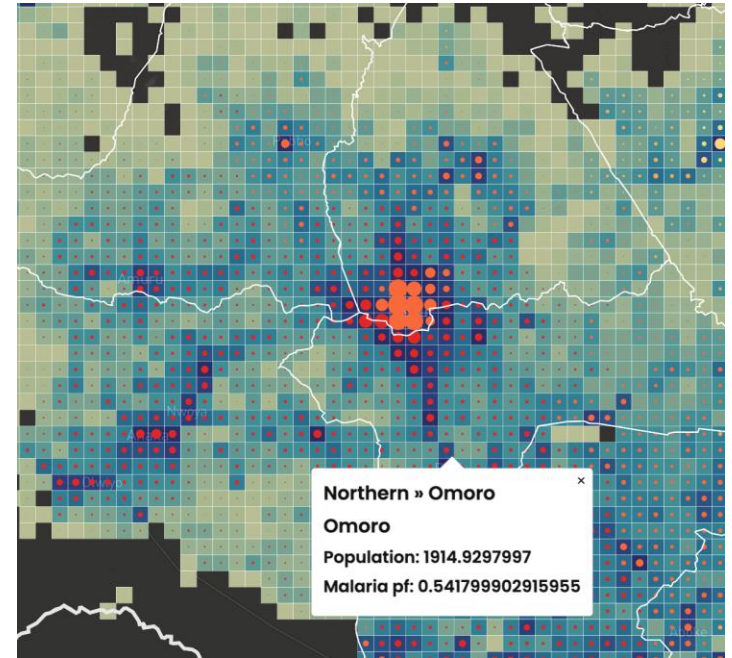
Vector Analysis - We take the centroid of each pixel and extract the value of the vector it intersects.

Quadkeys greatly simplify spatial analytics

QK10: 1020123213 - Malaria rate = 10%

QK12: 102012321312 - Population 2400

QK22: 1020123213121032042201 - Household



Data Catalog

Population

- Meta HRSL, Worldpop, GRID3 (Selected countries)

Building Counts

- Google, Microsoft, OSM

Demographics

- Relative Wealth Index (Meta)

Access

- Driving time to access health care (World)
- Walking times to access health care (World)
- Health Access scores (Fraym) - Selected countries

General

- Elevation

Disease

- Global Malaria *PF* Rate
- Insecticide treated net use

Food Security

- Fews.net IPC

Climate

- Temperature Change
- Rain Fall

Agriculture

- Crop Type

Security

- ACLED Events