

# WFP GeoNode

## *Use Cases and Roadmap*

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**World Food Programme**

# World Food Programme



May 2013

## WFP Global Presence

- OMP Regional Bureau Panama
- OMD Regional Bureau Dakar
- OMN Regional Bureau Nairobi
- OMJ Regional Bureau Johannesburg
- OMC Regional Bureau Cairo
- OMB Regional Bureau Bangkok
- ★ Headquarters
- Lliaison Office
- Regional Bureau
- Communications Office
- Country Office
- Centre of Excellence
- Humanitarian Response Depot



**World Food Programme**

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The designations employed and the presentation of material in the maps do not imply the expression of any opinion whatsoever on the part of WFP concerning the legal or constitutional status of any country, territory or sea area, or concerning the delimitation of frontiers.

\*The Line of Control in Jammu and Kashmir agreed on by India and Pakistan is represented approximately by a dotted line. The final status of Jammu and Kashmir has not yet been agreed on by the parties.

\*\*A dispute exists between the governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

\*\*\* Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined.

# Outline

- Introduction
- WFP GeoNode in the organization
- Technical Update
- WFP GeoNode as part of the GIS Infrastructure
- WFP GeoNode projects
- Roadmap

# Introduction



WFPGeoNode

Search... Sign in

LAYERS MAPS RESOURCES USERS



## Welcome to the WFPGeoNode

Our corporate web application for creating and sharing geospatial data and maps designed for non-GIS experts.

[Get Started](#)

Image Credit: NASA

Layers 697 Maps 69 Static Maps 2186 Users 200

Search...

### Recent Maps



School Feeding in Egypt 97



CAR Operational OverView... 330



WFP Presence by Region... 352



Chad Cash & Vouchers PL... 166



### Explore Data

Click to search for geospatial data from our corporate SDI or published by other users, organizations and public sources.



### Explore Maps

Data is available for browsing, aggregating and styling to generate maps which can be shared publicly or restricted to specific users only.



### Upload Data

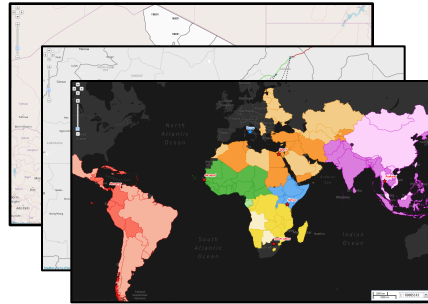
GeoNode allows registered users for easily upload geospatial data in several formats including shapefile, GeoTiff and KML.

WFPGeoNode 2.2.10 | [Contacts](#) | [Terms of Use](#) | [Get Started](#)

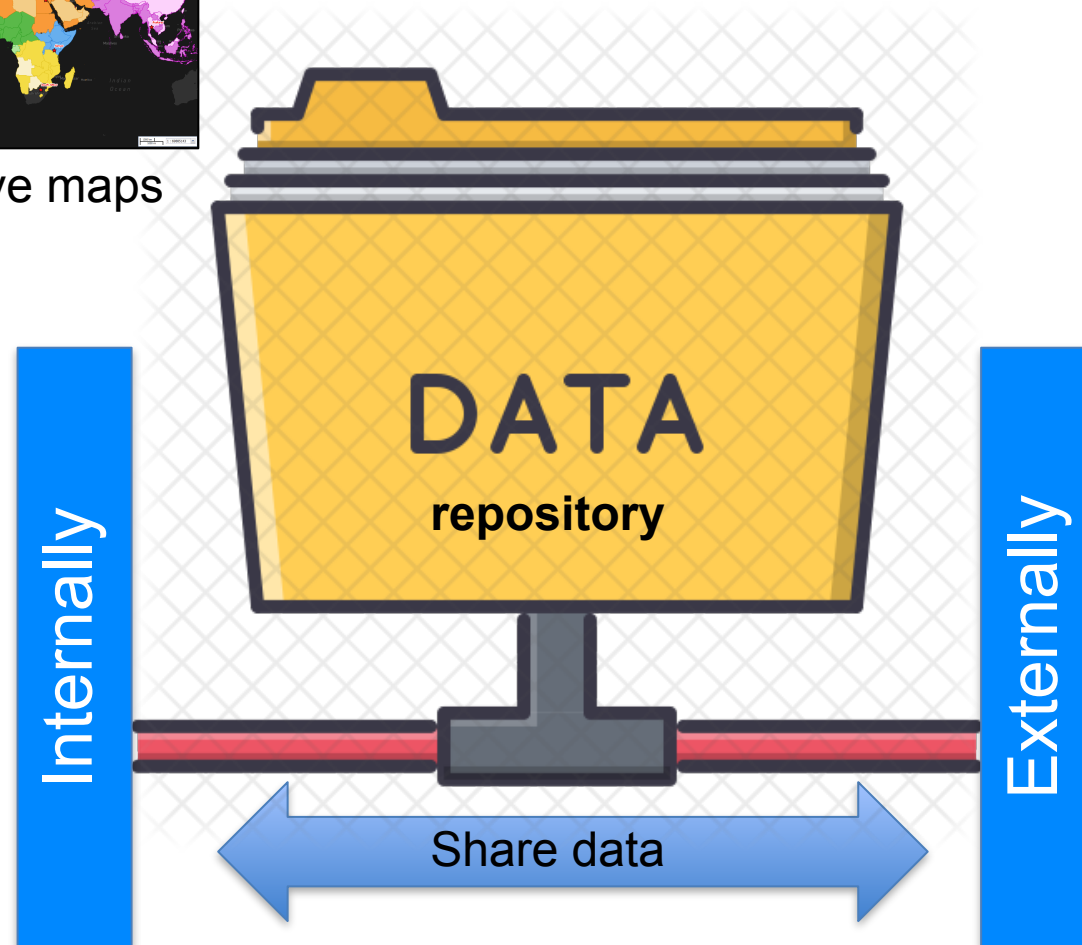
English 

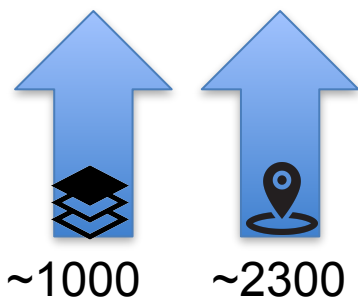


# WFP GeoNode in the organization













Interactive maps



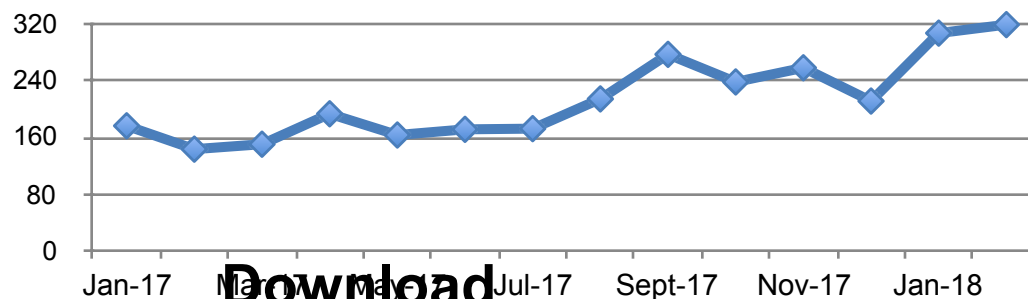


Top 10

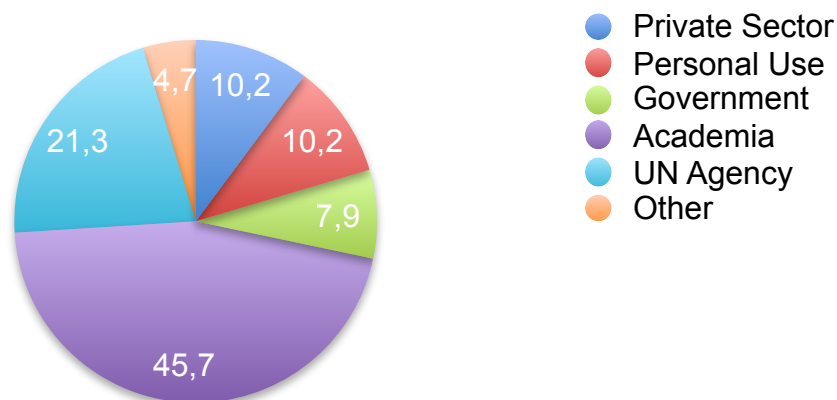
 United States
 United Kingdom
 Netherlands
 Canada
 Egypt
 Switzerland
 Nigeria
 France
 India
 Australia

>50%

Shapefile Download ~214 per month



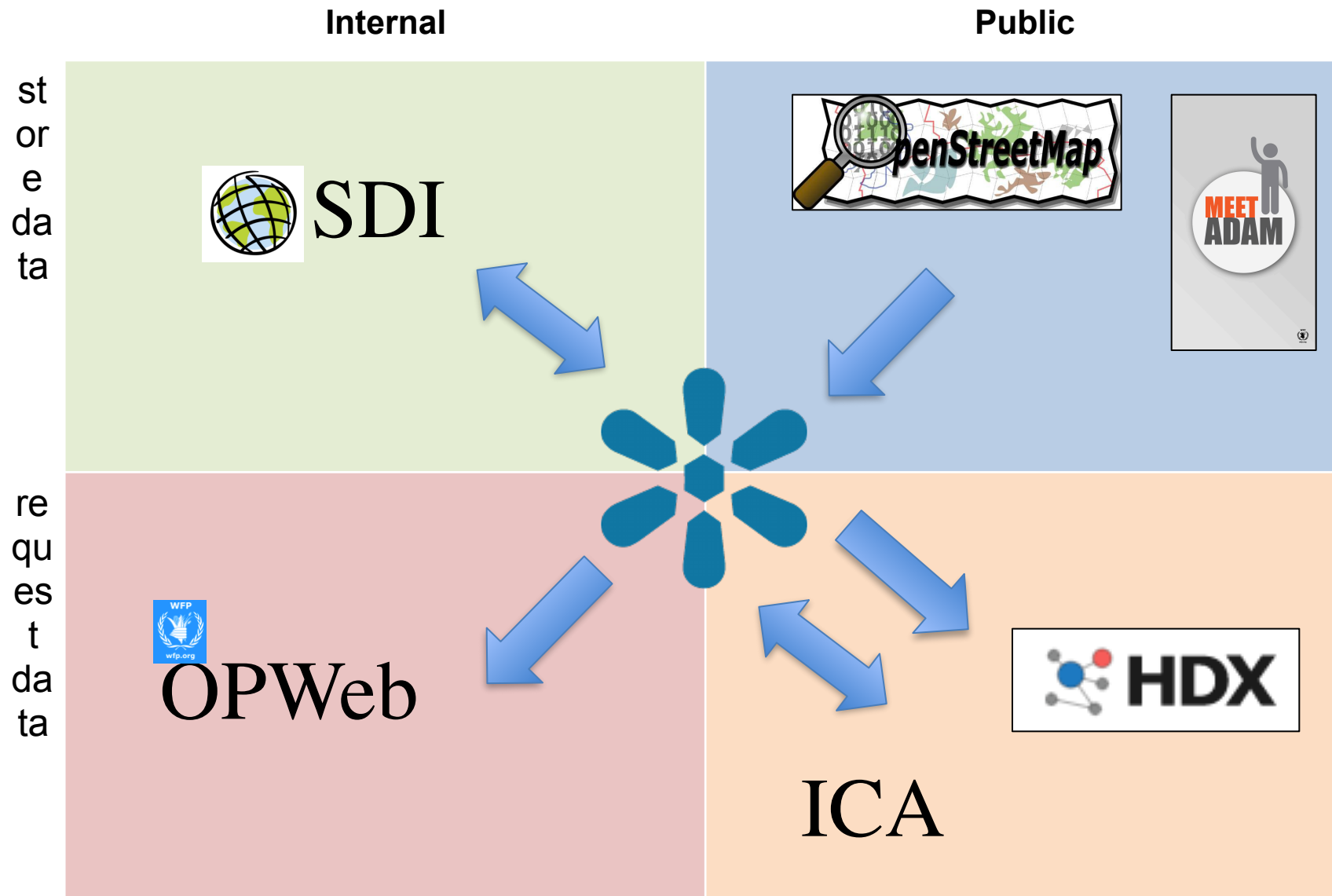
Download  
from  
external  
users



- Private Sector
- Personal Use
- Government
- Academia
- UN Agency
- Other

# WFP GeoNode

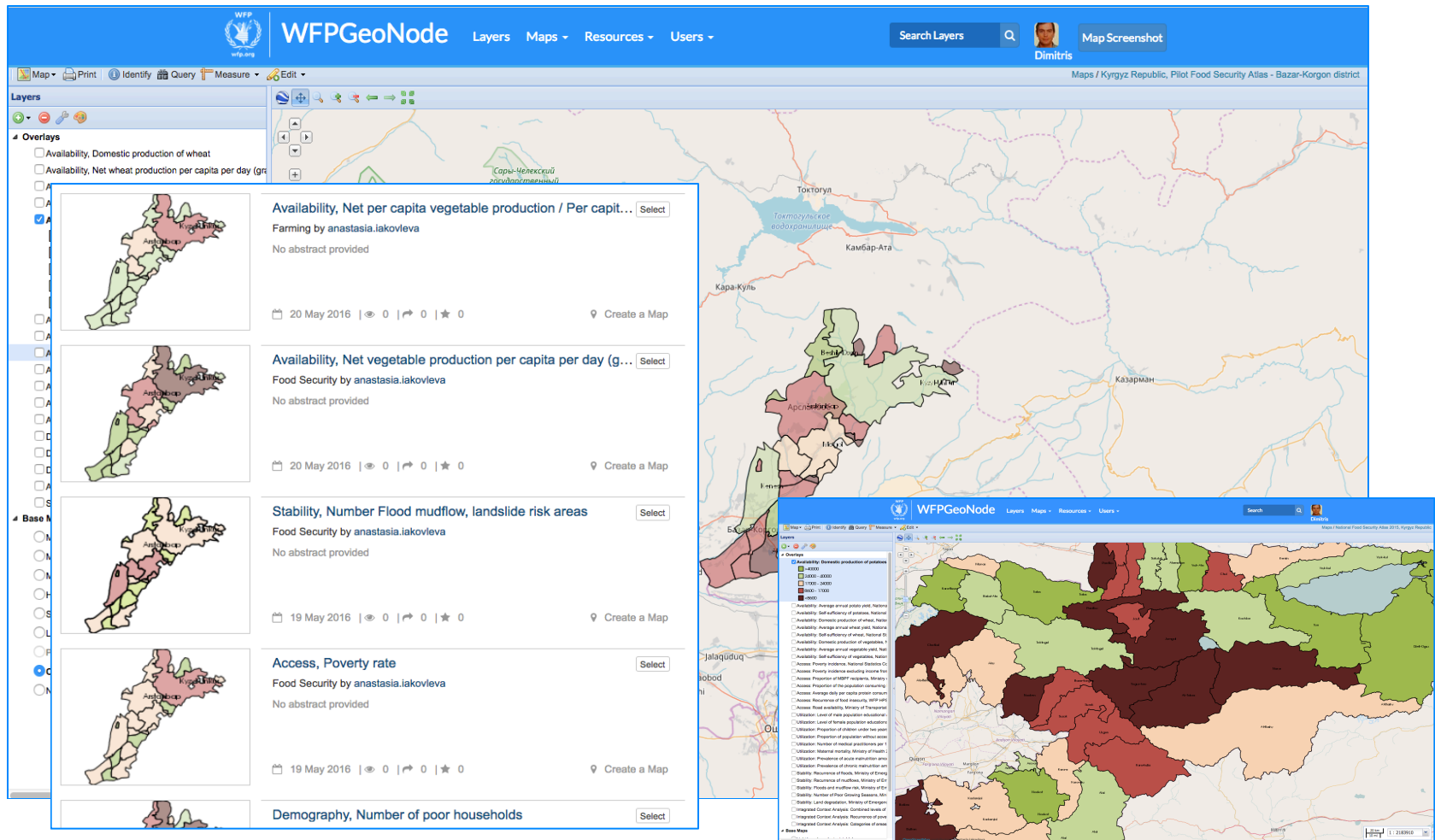
As a hub



# WFP GeoNode in the organization

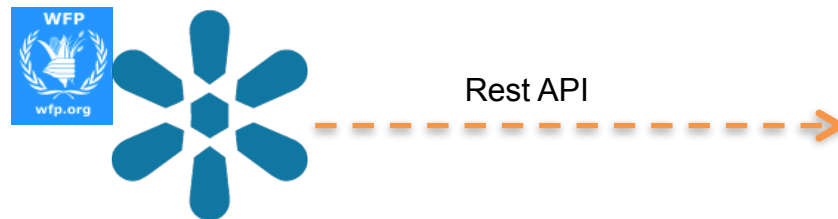
## National Food Security Atlas, Kyrgyz Republic:

- > 60 layers

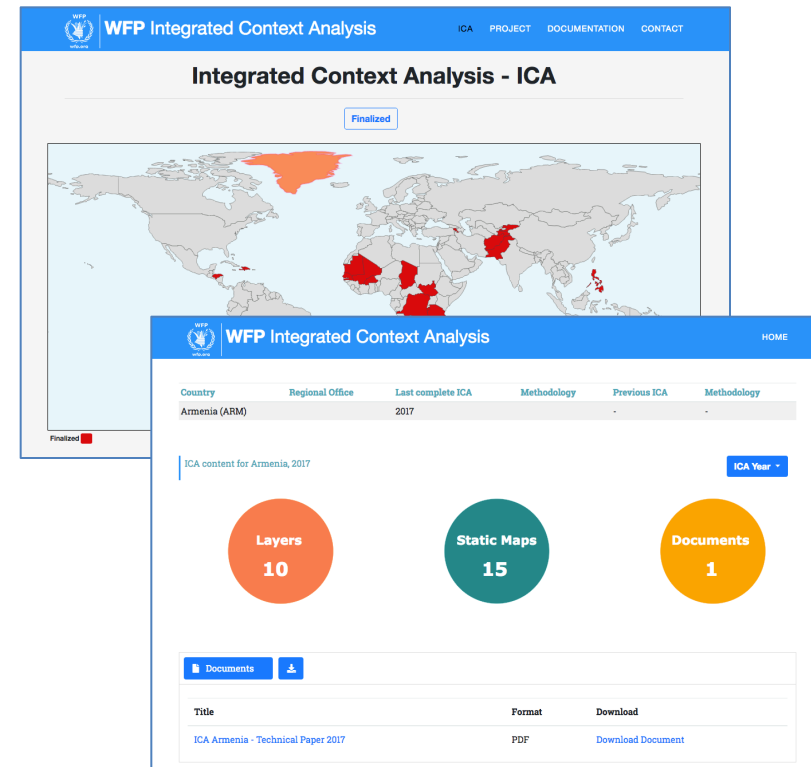


# WFP GeoNode Use Cases - ICA

**Requirement:** to have a dedicated page for the ICA project where it is possible to display data grouped by country and year of analysis along with other metadata information ([geonode.wfp.org/imaps/ica/](http://geonode.wfp.org/imaps/ica/)).



## ICA platform



The screenshot displays the WFP Integrated Context Analysis (ICA) platform interface. The top navigation bar includes links for ICA, PROJECT, DOCUMENTATION, and CONTACT. The main heading is "Integrated Context Analysis - ICA". Below this, a world map shows various countries highlighted in red, indicating the scope of the analysis. A "Finalized" button is visible above the map.

Below the map, a table lists the countries and their corresponding ICA data:

Country	Regional Office	Last complete ICA	Methodology	Previous ICA	Methodology
Armenia (ARM)		2017		-	-

Below the table, a section titled "ICA content for Armenia, 2017" displays three circular icons representing different types of content:

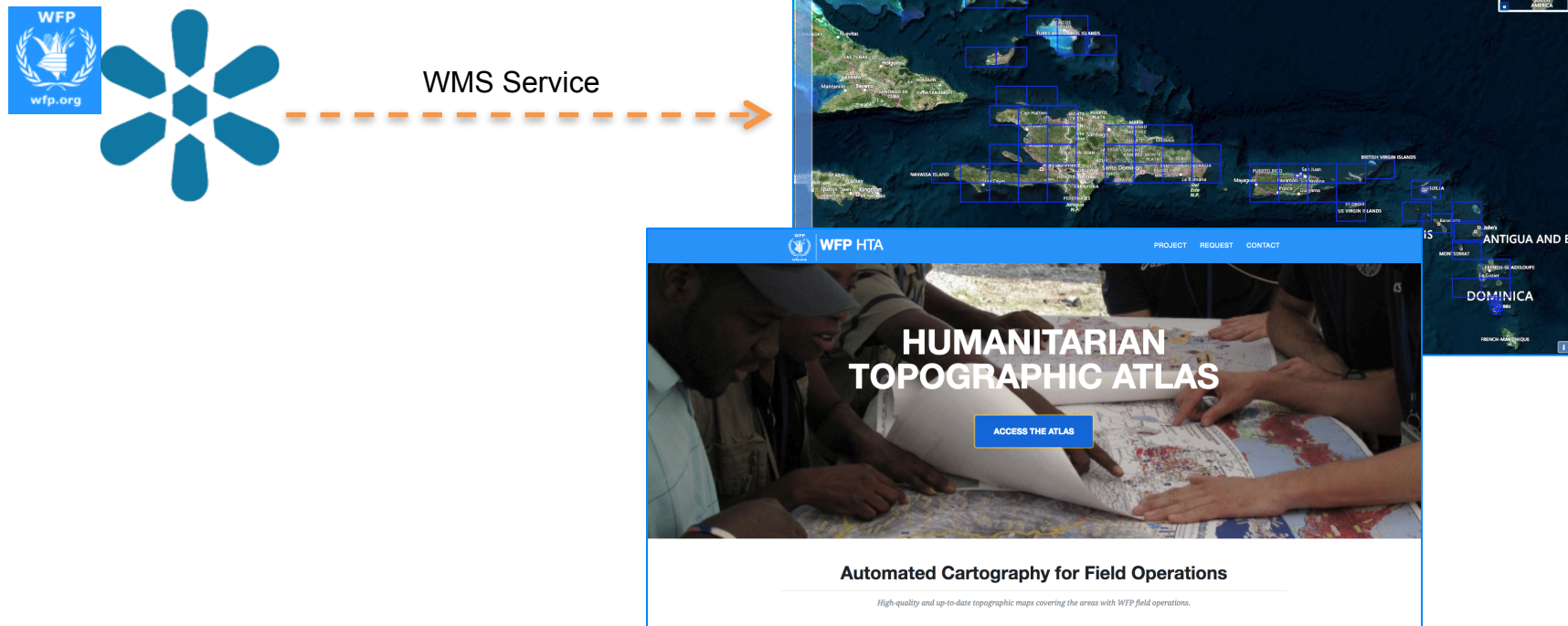
- Layers:** 10
- Static Maps:** 15
- Documents:** 1

At the bottom, a "Documents" section shows a list of documents with columns for Title, Format, and Download. The first document listed is "ICA Armenia - Technical Paper 2017" in PDF format, with a "Download Document" link.

# WFP GeoNode Use Cases - HTA

**Requirement:** to have a dedicated page for the HTA project with a global map divided into grids. The user will search for area of interest and download corresponding map by clicking on the grid ([geonode.wfp.org/imaps/hta/](http://geonode.wfp.org/imaps/hta/))

HTA platform

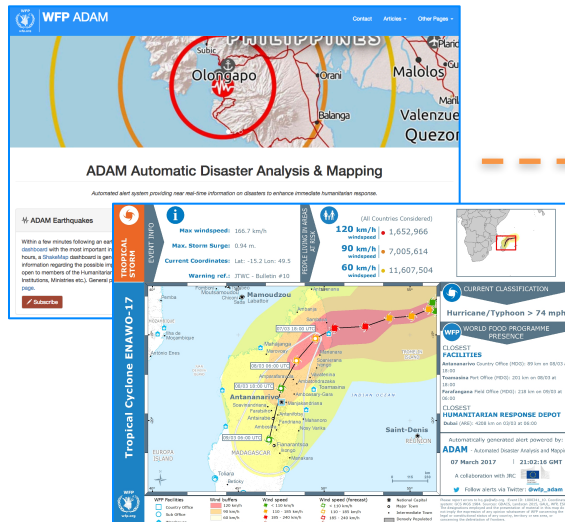




# WFP GeoNode Use Cases - ADAM

**Description:** ADAM is an automated alert system developed to provide near-real time information for earthquakes and tropical cyclones. The generated dashboards and pivot tables are **automatically** uploaded to GeoNode and later disseminated publicly via twitter (@WFP\_ADAM).

## ADAM



# Technical Update

Download part of the layer using:

- query builder
- map selector

### Download Layer

Do you want to filter it?

Query Builder

Map Filter

Match **all** of the following:

iso3

=

+

Pick your format:

KML

GeoJSON

Excel

CSV

Zipped Shapefile

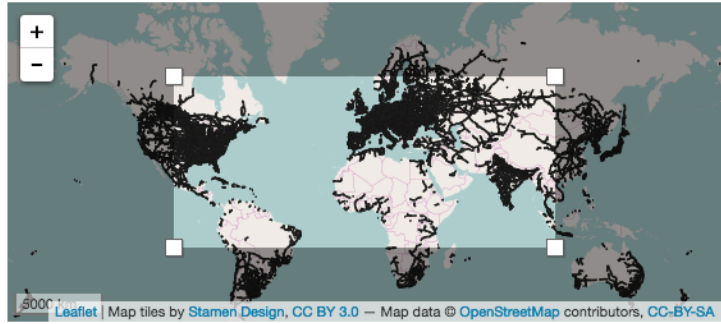
Close

### Download Layer

Do you want to filter it?

Query Builder

Map Filter



Pick your download format:

KML

GeoJSON

Excel

CSV

Zipped Shapefile

Close

# Technical Update

Create a Layer with Administrative Boundaries (source Gaul2015):

## Create Layer

1

Create a layer by administrative levels

Choose an existing layer:

Global Layer

Country layer by region

Country layer by province

Download a CSV file of a selected country

## Upload Layer

Title

Layer type

Global Layer

Csv

Choose File

No file chosen

Selected country

World  
Abyei  
Afghanistan  
Aksai Chin

Upload

## Permissions

Explore Layers

Who can view it?

☒ Anyone

The following users:

Choose users...

The following groups:

Choose groups...

Who can download it?

Who can change metadata for it?

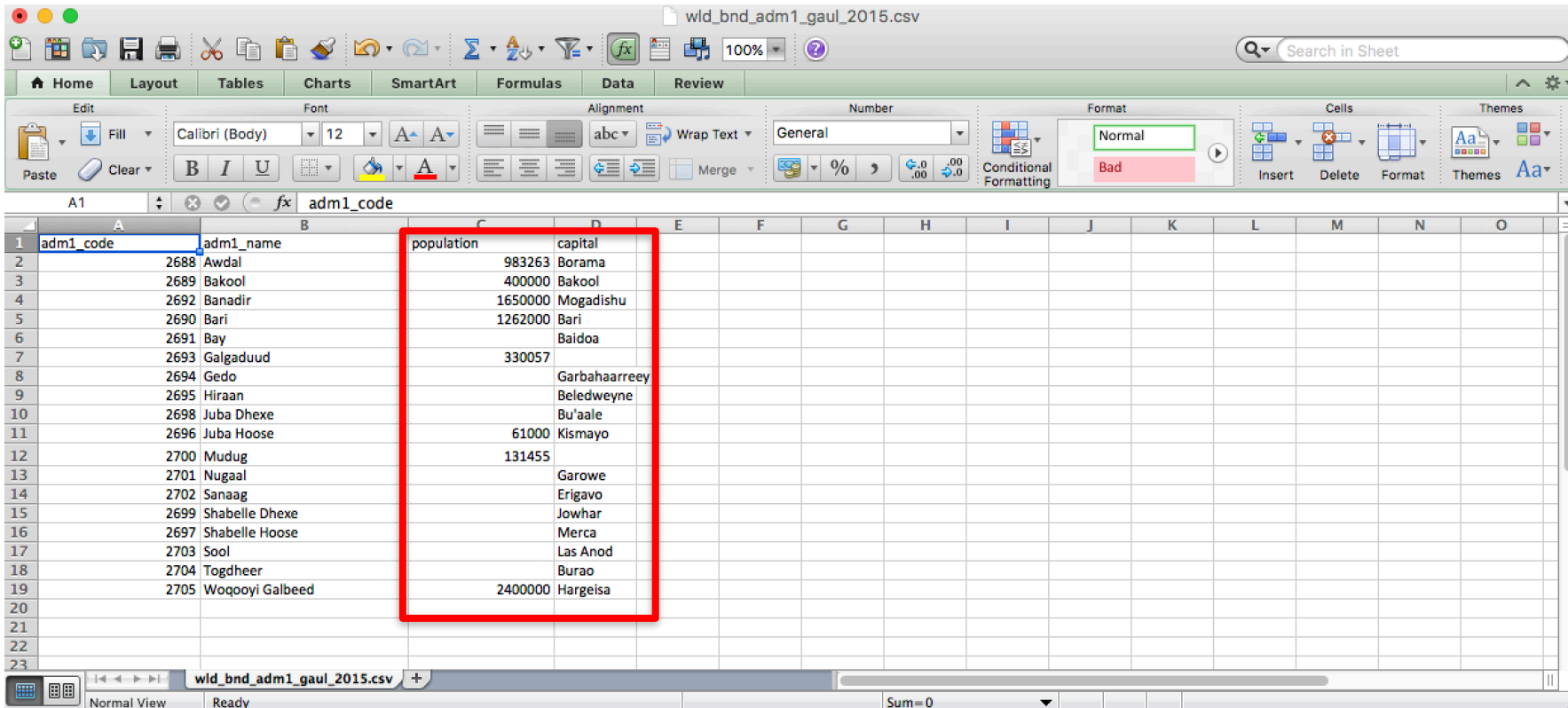
Who can edit data for this layer?

Who can edit styles for this layer?

Who can manage it? (update, delete, change permissions, publish/unpublish it)

# Technical Update

Open the CSV with Excel (e.g. Regions of Somalia). Add additional columns:



adm1_code	adm1_name	population	capital
2688	Awdal	983263	Borama
2689	Bakool	400000	Bakool
2692	Banadir	1650000	Mogadishu
2690	Bari	1262000	Bari
2691	Bay		Baidoa
2693	Galgaduud	330057	
2694	Gedo		Garbahaarreey
2695	Hiraan		Beledweyne
2698	Juba Dhexe		Bu'aale
2696	Juba Hoose	61000	Kismayo
2700	Mudug	131455	
2701	Nugaal		Garowe
2702	Sanaag		Erigavo
2699	Shabelle Dhexe		Jowhar
2697	Shabelle Hoose		Merca
2703	Sool		Las Anod
2704	Togdheer		Burao
2705	Woqooyi Galbeed	2400000	Hargeisa

- Two added two columns:
1. Population of each region
  2. Capital of each region

# Technical Update

Upload the file:

## Create Layer

Explore Layers

Create a layer by administrative levels

Choose an existing layer:

Global LayerCountry layer by regionCountry layer by province

### Upload Layer

Fill in the necessary fields

Title

Layer type

Global Layer

Csv

Choose File No file chosen

Selected country

World  
Abyei  
Afghanistan  
Aksai Chin

Upload

Click Upload –The layer will be created

### Permissions

Who can view it?

☒ Anyone

The following users:

Choose users...

The following groups:

Choose groups...

Who can download it?

Who can change metadata for it?

Who can edit data for this layer?

Who can edit styles for this layer?

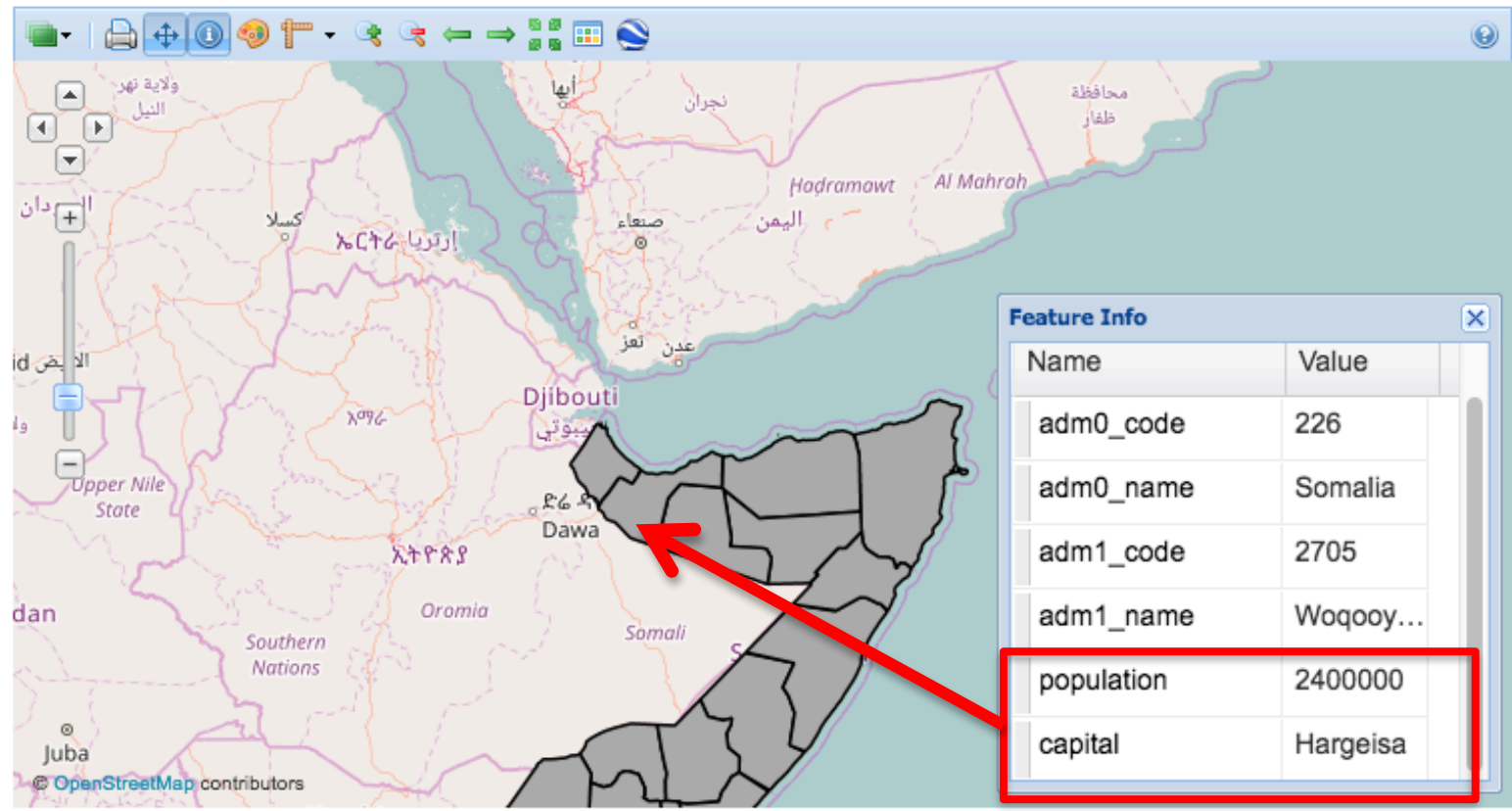
Who can manage it? (update, delete, change permissions, publish/unpublish it)

Set permissions

# Technical Update

The Layer is Uploaded and can be retrieved in Layer List page

## Somalia Regions





# Technical Update

Create an empty layer with specified geometry and attributes

**Create Layer** [Explore Layers](#)

Select the empty layer method

Create an empty layer

**Create Empty Layer**

Name of new Layer  
Iraq IDP Locations

Type of Data  
Points

name  
Character

Type  
Character

Population  
Integer

Add Another Attribute

Upload

Permissions

Who can view it?  
☒ Anyone  
The following users:  
Choose users...  
The following groups:  
Choose groups...

Who can download it?

Who can change metadata for it?

Who can edit data for this layer?

Who can edit styles for this layer?

Who can manage it? (update, delete, change permissions, publish/unpublish it)

Fill in the necessary fields

Add attributes

Click Upload –The layer will be created

# Technical Update

Edit data - Add new data

## Sudan Settlements

The screenshot shows a web-based map interface titled "Sudan Settlements". The map displays a large number of red dots representing settlements across Sudan. The interface includes a toolbar at the top with various map controls (pan, zoom, layers, etc.). On the left side, there is a vertical zoom slider. The map shows geographical features like the Nile River and various regions labeled in Arabic and English (e.g., Tibesti, Ennedi Ouest, Ennedi Est, Borkou, Tchad, Batha, N'Djamena, Western Bahr el Jebel). An "Edit Layer" panel is open on the right side of the map. This panel has four tabs: "Metadata", "Styles", "Thumbnail", and "Layer". The "Layer" tab is selected, and it contains a "Replace" button, an "Edit data" button (highlighted with a red rectangle), and a "Remove" button. At the bottom of the panel, there is a "Close" button. The map also includes a scale bar (200 km / 100 mi) and a scale indicator (1 : 17471285).

# Technical Update

Current limitation: **Editing** works for points

## Edit Layer Data: sdn\_poi\_settlem\_gov\_1

[View Layer](#)
[Explore Layers](#)

Add a new entry

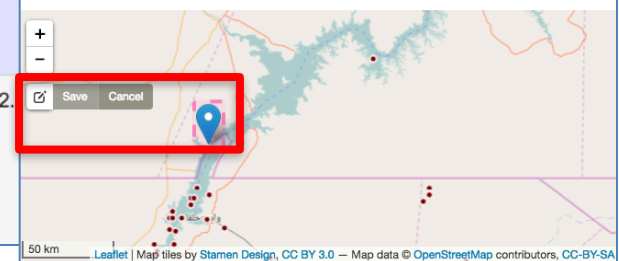
Show 10 entries

Search:

	type	source	name1	pcode	lccode	loc_count	state	x	y	type_text	locality	status	other_nam
<div>Edit Attributes</div> <div>Edit Geometry</div> <div>Delete Row</div>	5	GPS	Faras	NF36050001	SU1103	Halfa	Northern	31.466667	22.2	Village	Halfa	Not Verified	Halfa
<div>Edit Attributes</div> <div>Edit Geometry</div> <div>Delete Row</div>	5	GPS	Bi'r Jugub	NF36070001	SU1503	Halayeb	Red Sea	34.45	22.2				
<div>Edit Attributes</div> <div>Edit Geometry</div> <div>Delete Row</div>	5	GPS	Legag	NF36070004	SU1503	Halayeb	Red Sea	34.266667	22.2				

Map

Click the button on the map to edit features.



50 km

Leaflet | Map tiles by Stamen Design, CC BY 3.0 — Map data © OpenStreetMap contributors, CC-BY-SA

Save Close

# Technical Update

Modified the existing remote service application to be able to select the layers to be added:

- not cascaded
- non-authenticated layers (public)

## Register New Service

Service URL

Service Type

### Available Layers

geonode:arm\_trs\_roads\_osm

geonode:arm\_trs\_streets\_osm

geonode:asp\_poi\_amenities\_osm

geonode:bfa\_trs\_roads\_osm

geonode:bfa\_trs\_streets\_osm

# WFP GeoNode Use Cases - OSM

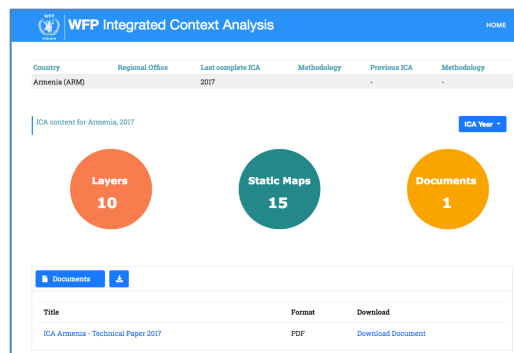
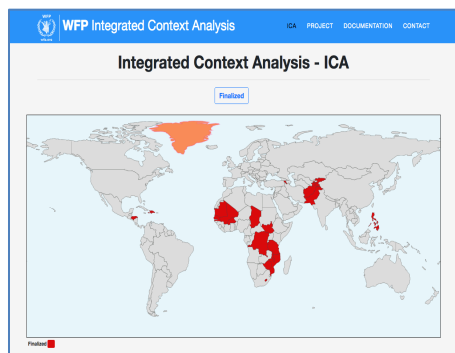
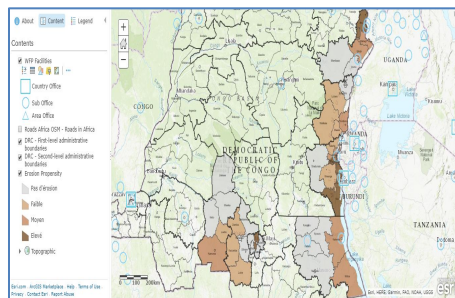
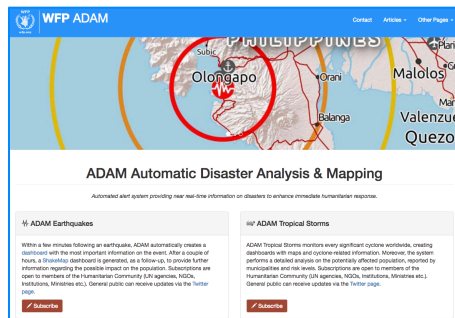
**Description:** An automated process to download OSM data in regular basis (road networks, buildings etc.) and store them in local DB. The data are displayed in GeoNode via remote services (from external geoserver) and shared with the Humanitarian Data Exchange platform.



# WFP GeoNode



- Centralized repository for the projects
- Search functionality
- Project metadata (project description, type of project etc.)





# WFP GeoNode – Next Steps



- Implement a project catalog app.
- Redesign the WFP GeoNode homepage.
- Implement a QGIS – GeoNode plugin & an ArcMap – GeoNode plugin for publishing layers to GeoNode
- Keep up with the latest updates of GeoNode.
- Promote and conduct further trainings of the platform within the organization.