

# WFP GeoNode

## *Use Cases and Roadmap*

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**World Food Programme**

# World Food Programme



May 2013

## WFP Global Presence

- WFP Regional Bureau Panama
- WFP Regional Bureau Dakar
- WFP Regional Bureau Nairobi
- WFP Regional Bureau Johannesburg
- WFP Regional Bureau Cairo
- WFP Regional Bureau Bangkok
- Headquarters
- Regional Bureau
- Country Office
- Humanitarian Response Office
- Liaison Office
- Communications Office
- Office of Beneficiaries



World Food Programme

### © 2013 World Food Programme

The WFP is a United Nations organization that provides humanitarian assistance to people in need. It is the largest humanitarian organization in the world, with over 100 offices in more than 120 countries. The WFP is committed to saving lives and improving the lives of people in need. It provides food assistance, nutrition support, and other humanitarian aid. The WFP is a member of the United Nations and is part of the United Nations Development Group. The WFP is a non-profit organization and is funded by governments, private organizations, and individuals. The WFP is a leader in the humanitarian sector and is recognized for its commitment to saving lives and improving the lives of people in need.

# Outline



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

# Introduction



The screenshot displays the WFPGeoNode web application interface. At the top, there is a blue header bar containing the WFP logo, the text "WFPGeoNode", a search bar, and a "Sign In" button. Below the header, a large banner features a satellite map of the Horn of Africa with the text "Welcome to the WFPGeoNode" and "Our corporate web application for creating and sharing geospatial data and maps designed for non-GIS experts." A "Get Started" button is positioned below the banner. Underneath the banner, a navigation bar shows counts for "Layers" (697), "Maps" (69), "Static Maps" (2186), and "Users" (200), along with another search bar. The "Recent Maps" section displays four map thumbnails with their respective titles and view counts: "School Feeding in Egypt" (37), "CAR Operational OverView" (330), "WFP Presence by Region" (352), and "Chad Cash & Vouchers PL" (164). Below this, three main sections are visible: "Explore Data" with a diamond icon, "Explore Maps" with a location pin icon, and "Upload Data" with a cloud upload icon. Each section contains a brief description of its functionality. The footer includes the text "WFPGeoNode 2.2.10 | Contacts | Terms of Use | Get Started", a language selector set to "English", and the WFP logo.

WFP  
wfp.org

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 37

CAR Operational OverView... 330

WFP Presence by Region... 352

Chad Cash & Vouchers PL 164

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

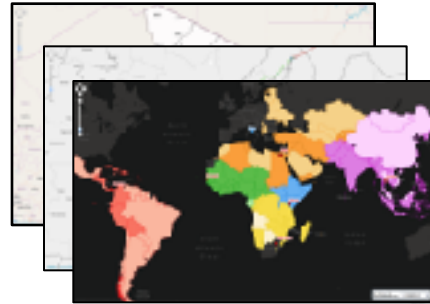
GeoNode allows registered users for easily upload geospatial data in several formats including shapefile, GeoTiff and KML.

WFPGeoNode 2.2.10 | Contacts | Terms of Use | Get Started

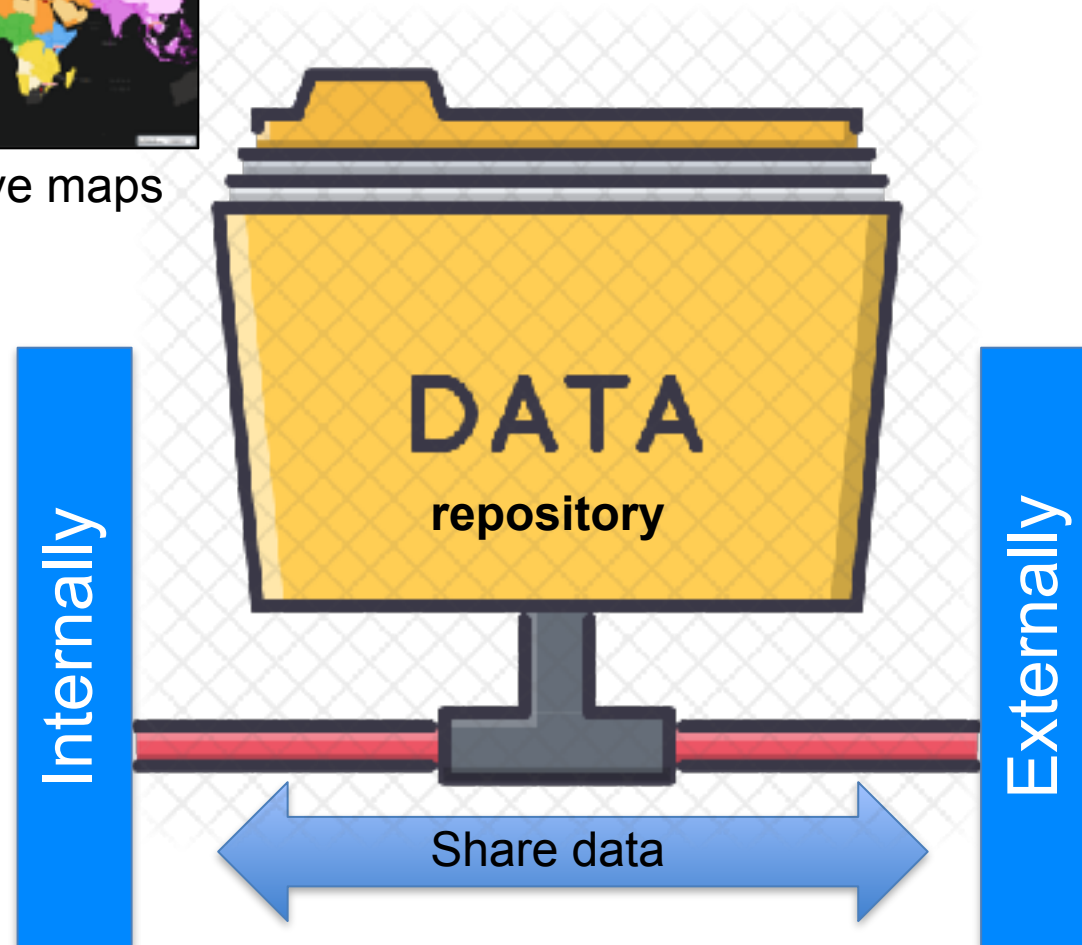
English

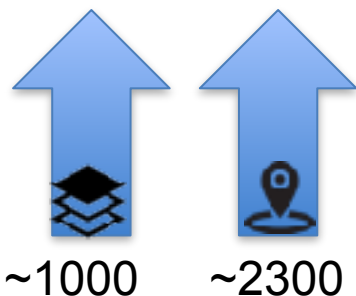
WFP  
wfp.org

# WFP GeoNode in the organization













Interactive maps



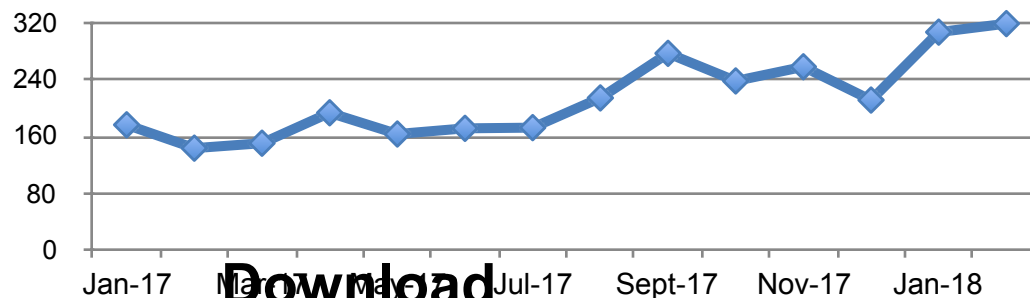


Top 10

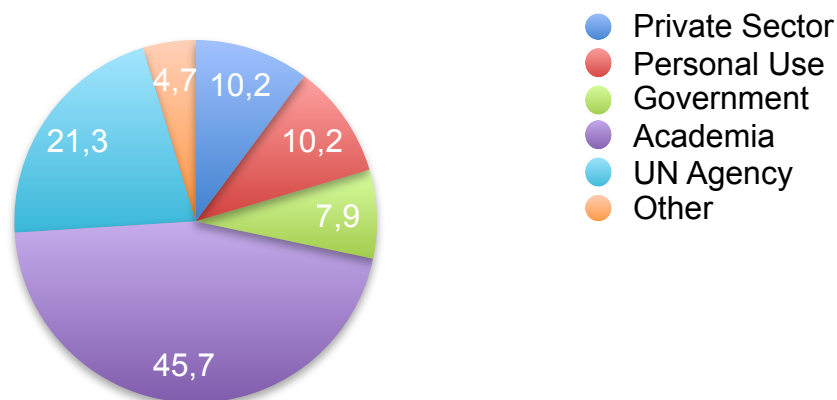
	United States
	United Kingdom
	Netherlands
	Canada
	Egypt
	Switzerland
	Nigeria
	France
	India
	Australia

>50%

Shapefile Download ~214 per month



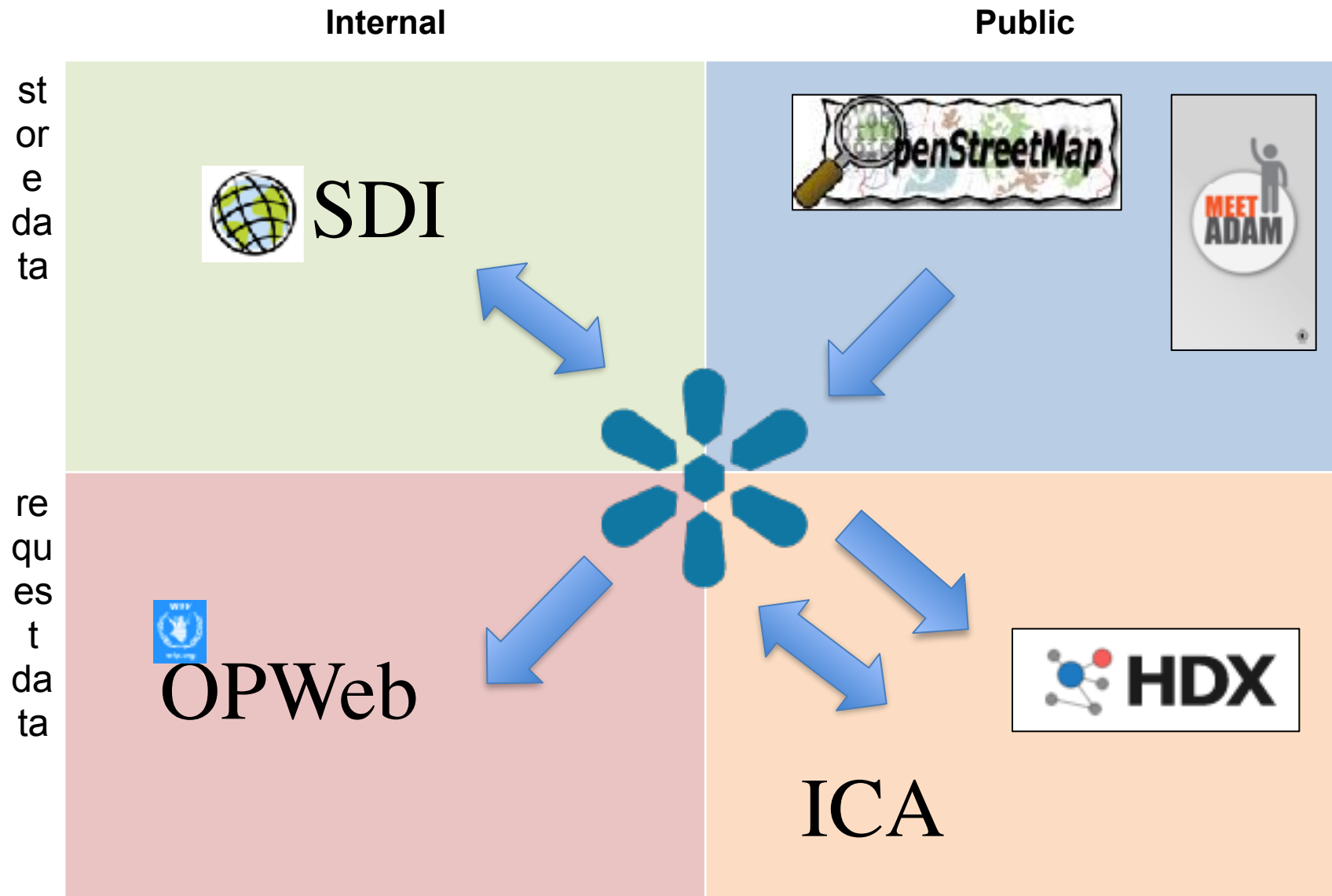
Download  
from  
external  
users



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

# WFP GeoNode

As a hub

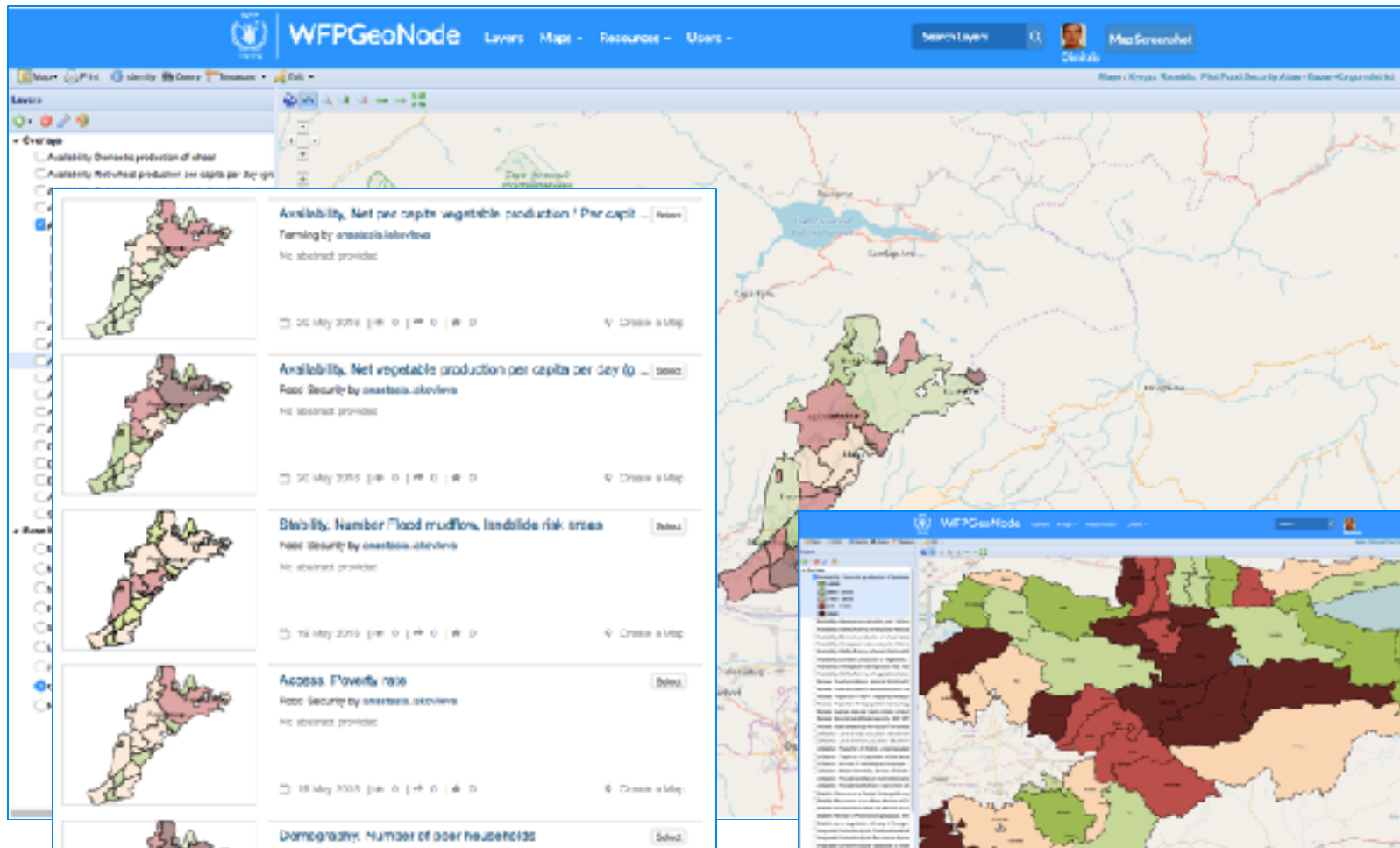




# WFP GeoNode in the organization

## National Food Security Atlas, Kyrgyz Republic:

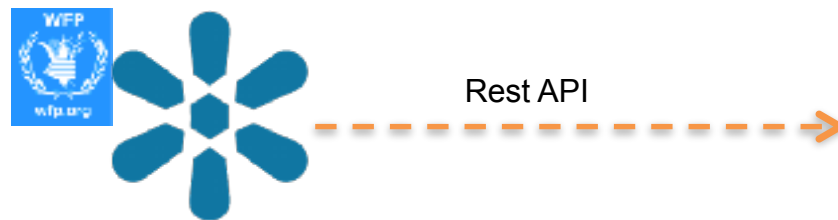
- > 60 layers



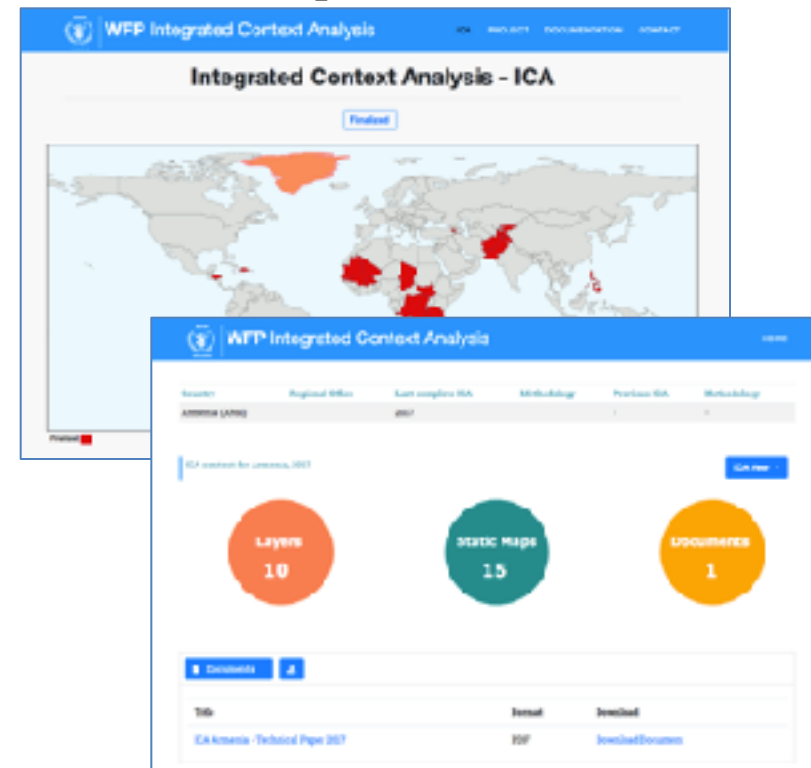


# WFP GeoNode Use Cases - ICA

**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/)).



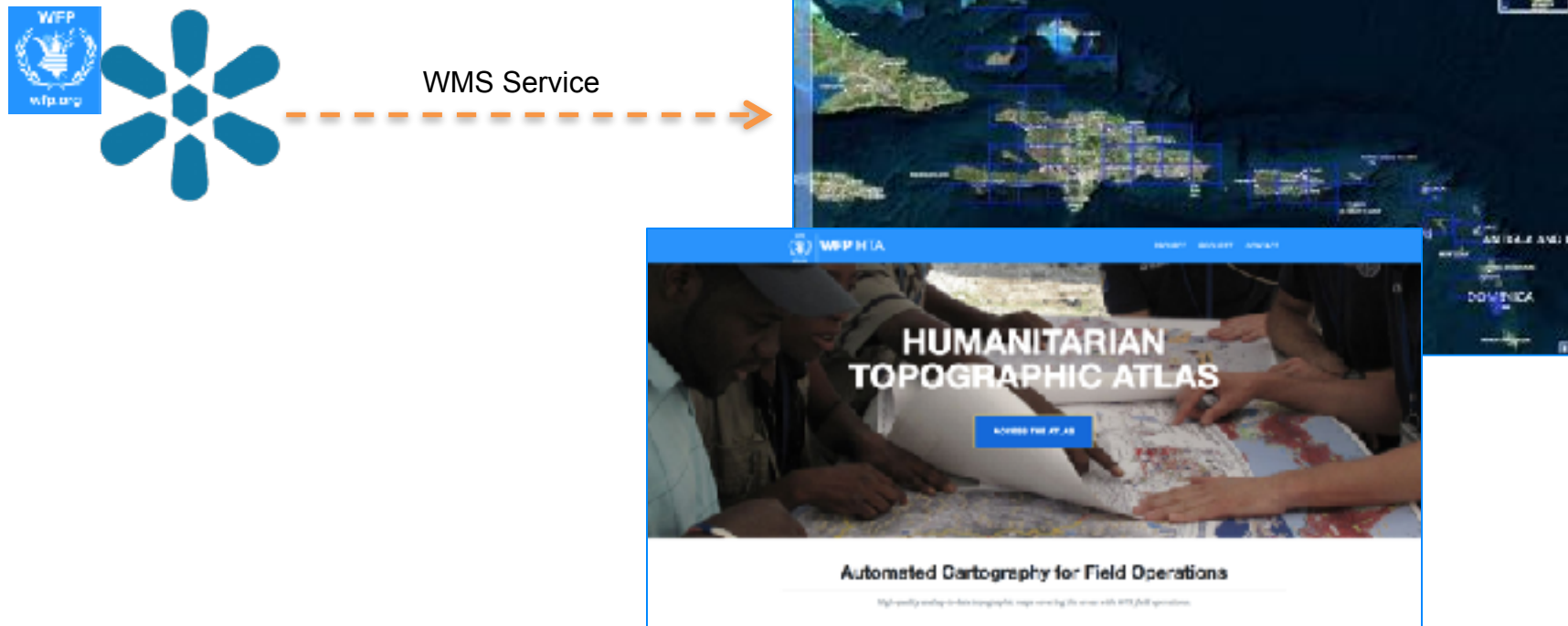
## ICA platform



# 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/))

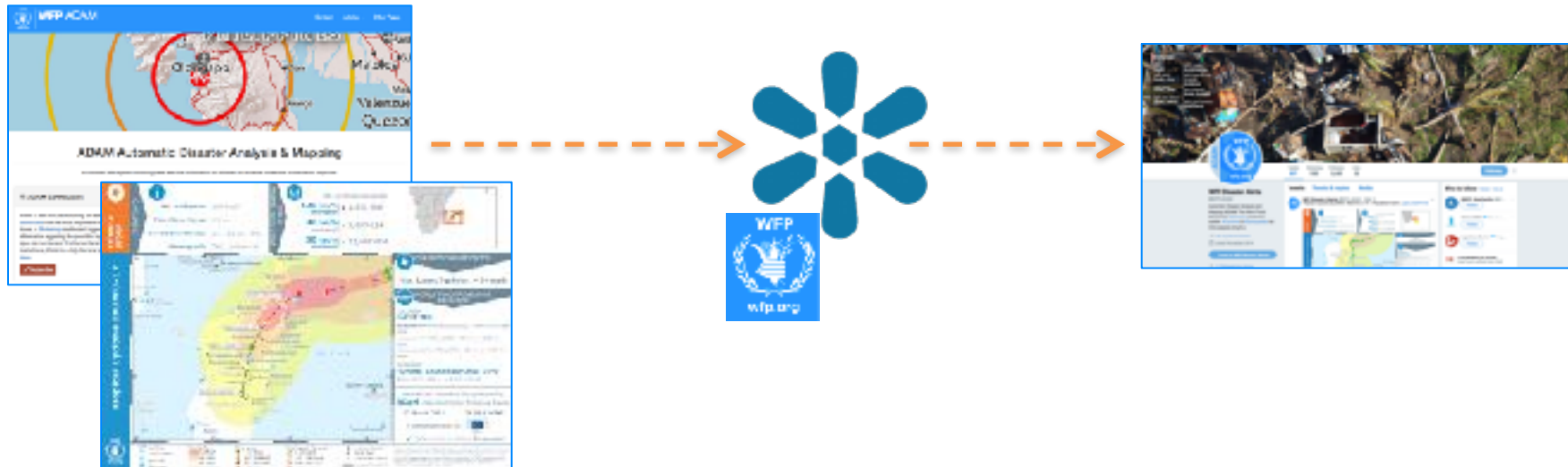
HTA platform



# 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 download format:

KML
GeoJSON
Excel
CSV
Zipped Shapefile

IDN
IMY
IND
IRL
IRN
IRQ
ISR

Close

Download Layer

Do you want to filter it?

Query Builder
Map Filter

+
-

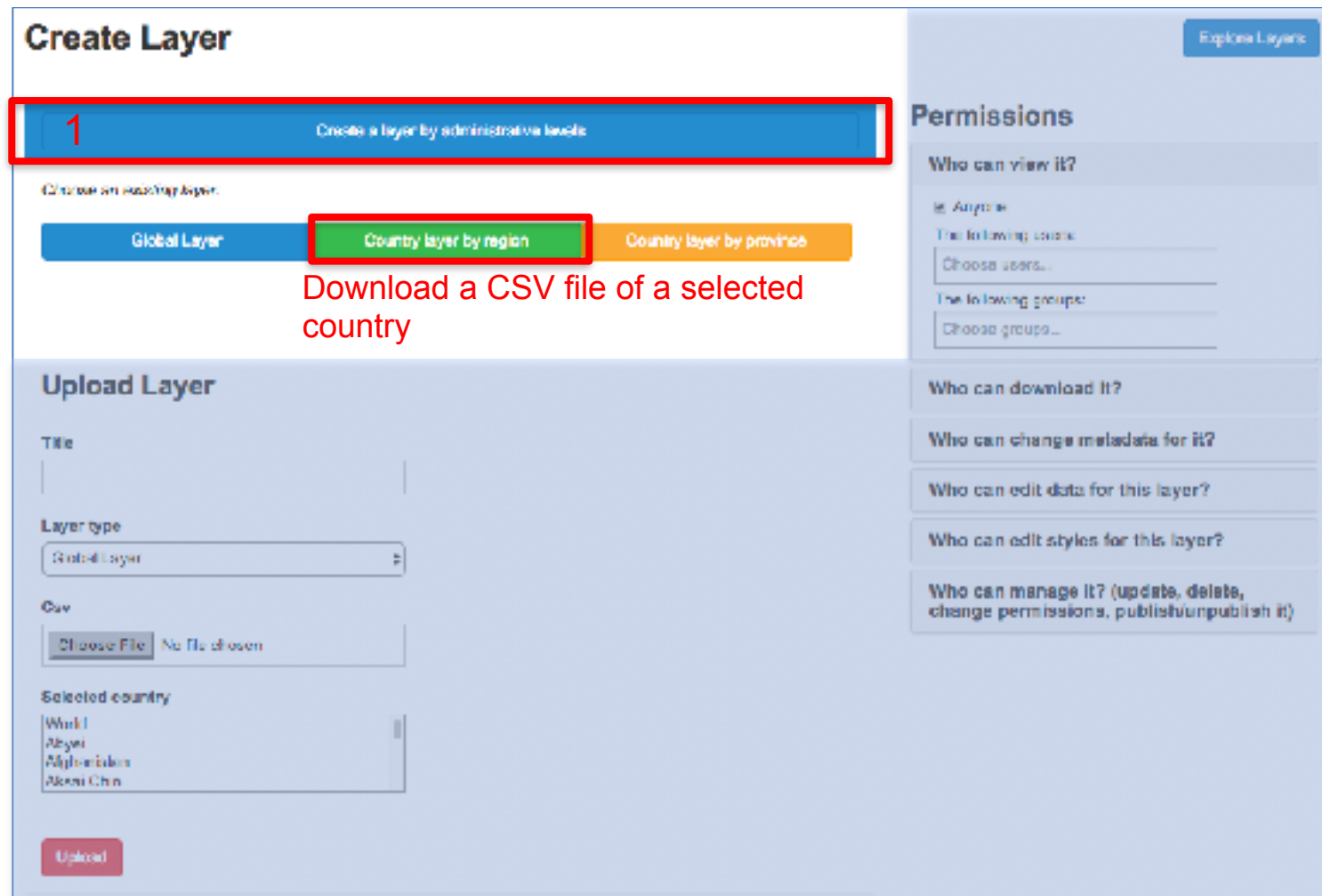
Pick your download format:

KML
GeoJSON
Excel
CSV
Zipped Shapefile

Close

# Technical Update

Create a Layer with Administrative Boundaries (source Gaul2015):



The screenshot shows the 'Create Layer' interface. A red box highlights the first option, 'Create a layer by administrative levels', which is labeled with a red '1'. Below this, three buttons are shown: 'Global Layer' (blue), 'Country layer by region' (green, highlighted with a red box), and 'Country layer by province' (orange). A red text annotation 'Download a CSV file of a selected country' points to the 'Country layer by region' button. The 'Upload Layer' section below contains fields for 'Title', 'Layer type' (set to 'Global Layer'), 'CSV' (with a 'Choose File' button and 'No file chosen' text), and 'Selected country' (a dropdown menu showing 'World', 'Afghanistan', 'Algeria', and 'Algeria'). An 'Upload' button is at the bottom. On the right, the 'Permissions' section is visible, with a 'Explore Layers' button at the top right.

**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, Afghanistan, Algeria, Algeria

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?

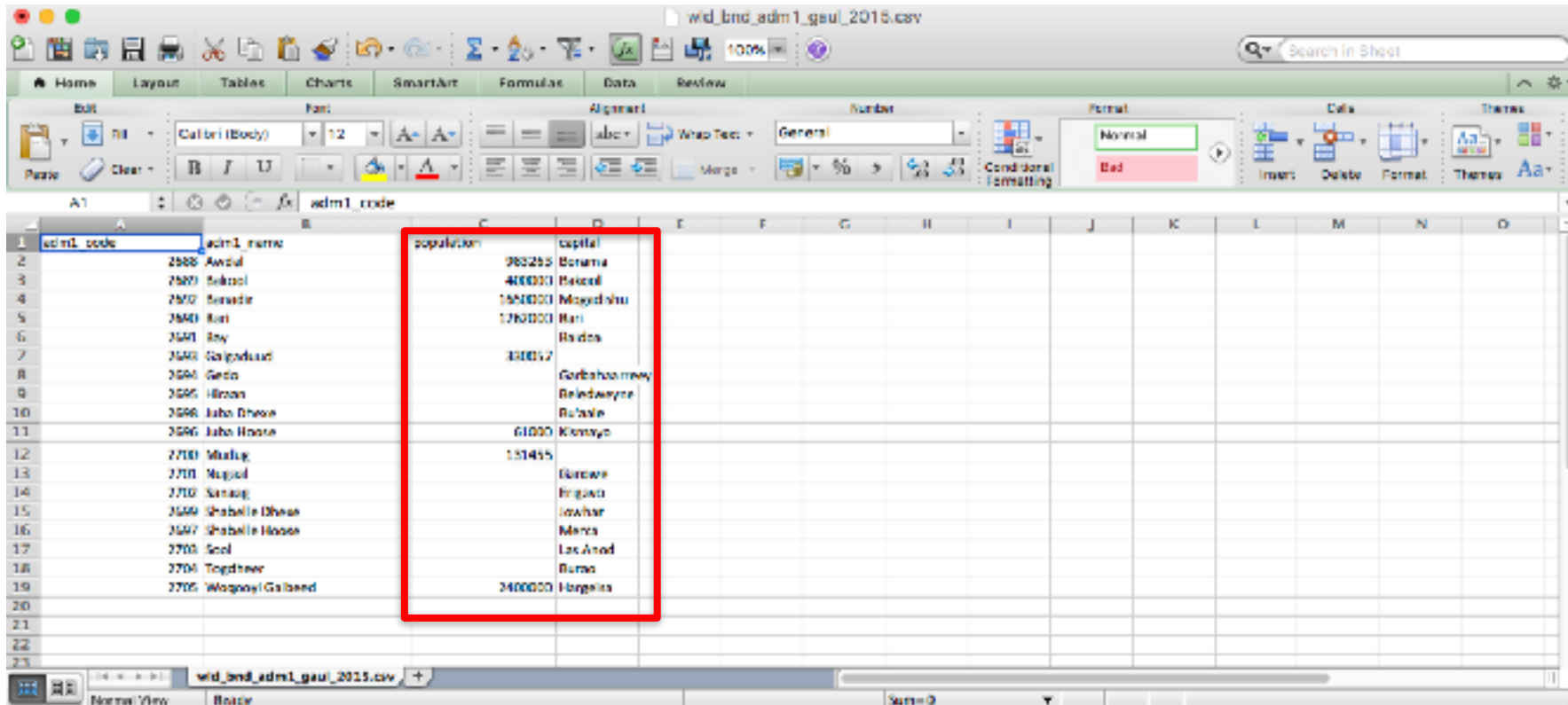
Who can edit data for this layer?

Who can edit styles for this layer?

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

# Technical Update

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



adm1_code	adm1_name	population	capital
2588	Awdal	980255	Borama
2589	Bakool	400000	Beledweyne
2590	Banadir	1650000	Mogadishu
2591	Bari	1700000	Bari
2592	Bay		Baidoa
2593	Galguduud	300000	Gardafuud
2594	Gedo		Gardafuud
2595	Hiran		Beledweyne
2596	Juba Dhexe		Beledweyne
2597	Juba Dhexe	61000	Kismayo
2700	Mudug	151455	
2701	Mogadishu		Borama
2702	Sanaag		Erigadi
2599	Shabelle Dhexe		Lower
2597	Shabelle Dhexe		Mara
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 Layer](#) [Country layer by region](#) [Country layer by province](#)

### Upload Layer

Fill in the necessary fields

Title

Layer type

Global Layer

Gov

[Choose File](#) No file chosen

Selected country

World  
Afghanistan  
Algeria  
China

[Upload](#)

Click Upload –The layer will be created

### Permissions

Who can view it?

in 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?

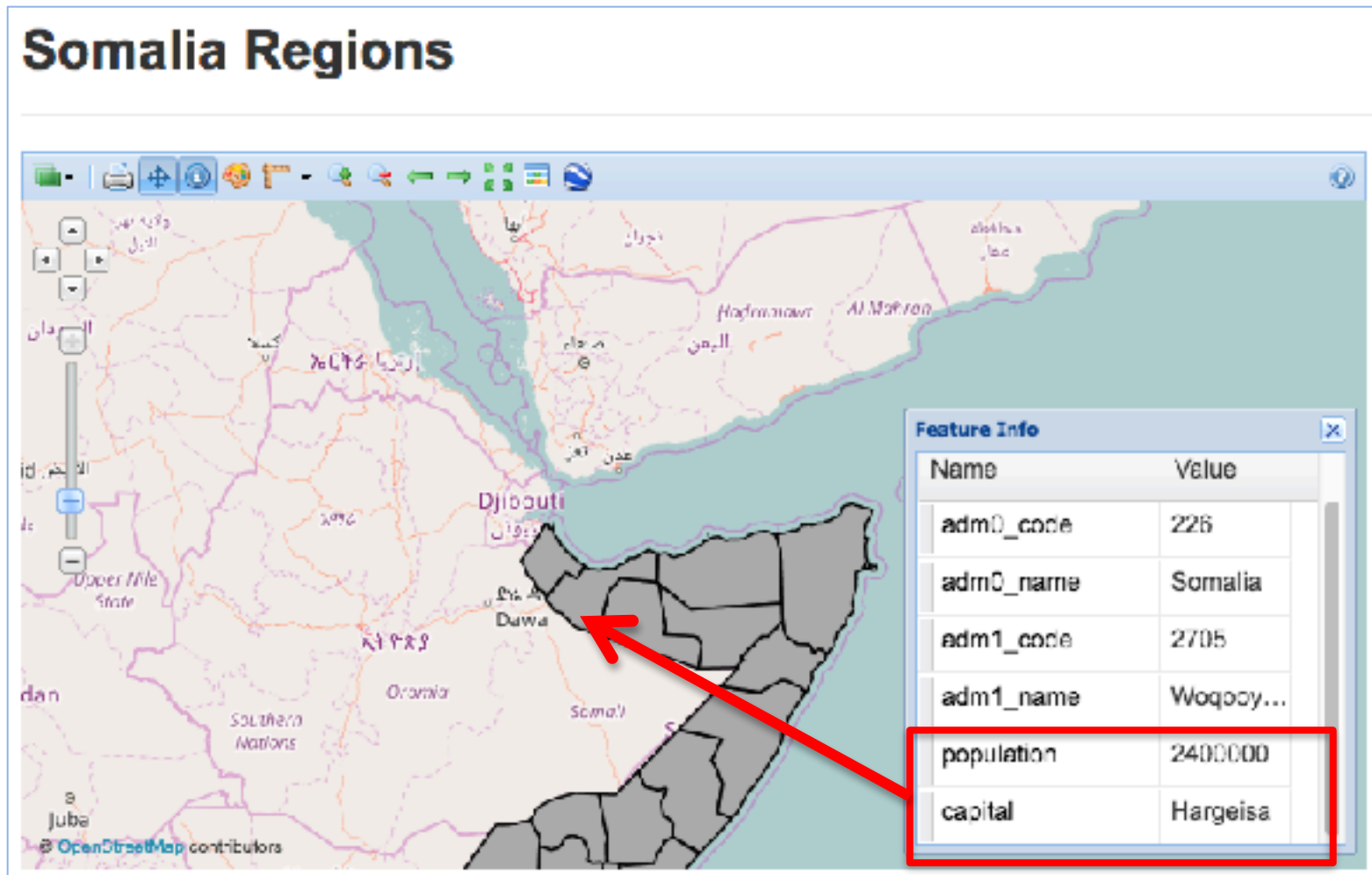
Who can edit styles for this layer?

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



# Technical Update

Create an empty layer with specified geometry and attributes

## Create Layer – Method II

### 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

Fill in the necessary fields

Add attributes

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?

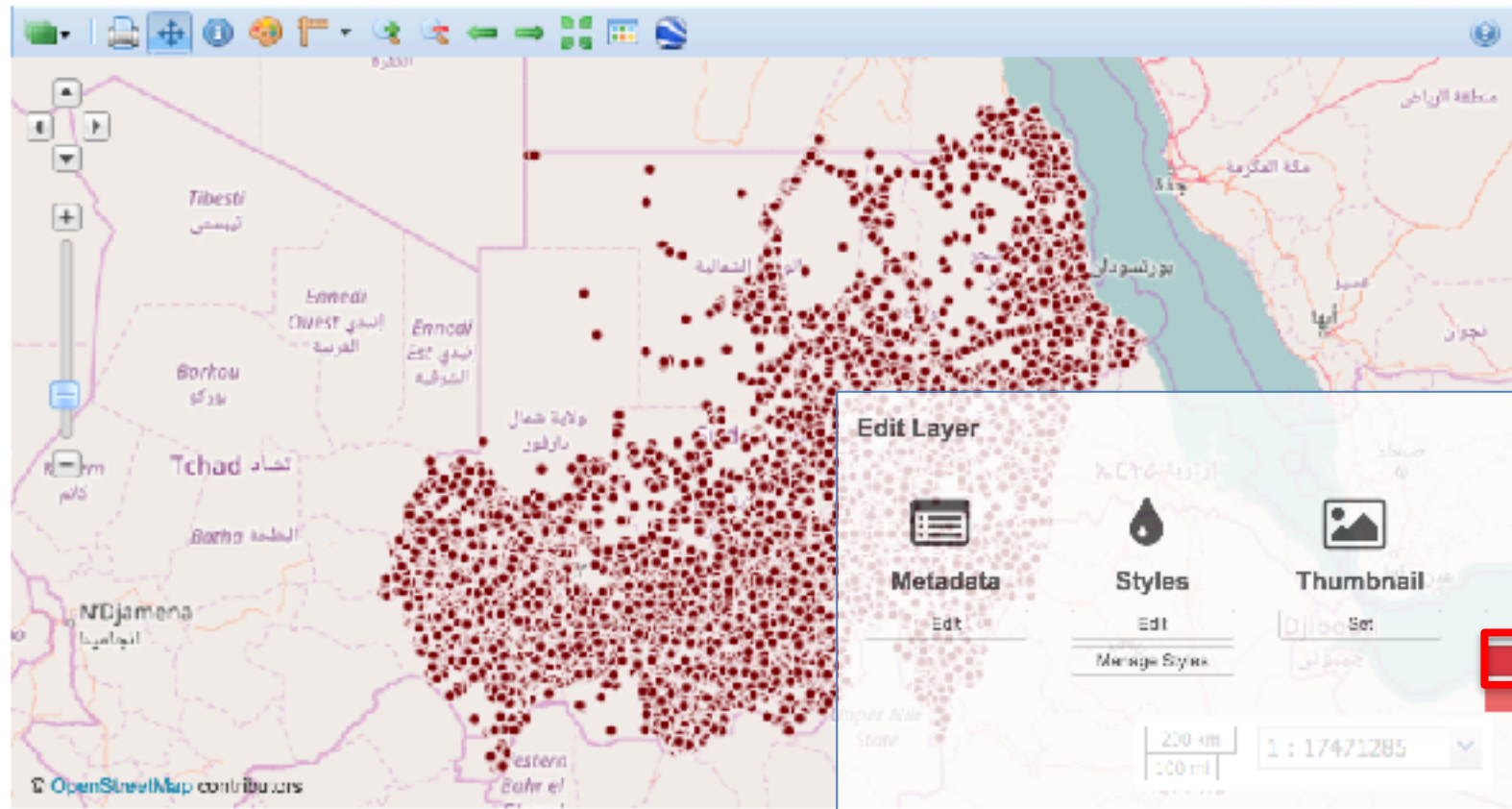
Who can edit styles for this layer?

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

# Technical Update

Edit data - Add new data

## Sudan Settlements



# Technical Update

Current limitation: **Editing** works for points

**Edit Layer Data: sdn\_poi\_settlem\_gov\_1** [View Layer](#) [Explore Layers](#)

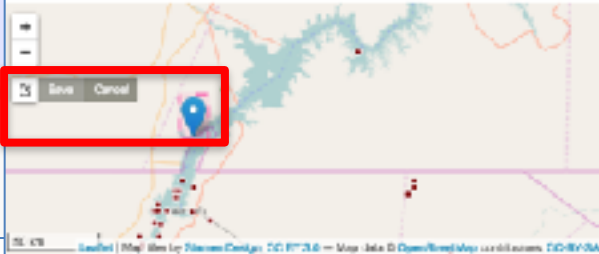
[Add a new entry](#)

Show  entries Search:

	type	source	name1	pcode	lccode	loc_count	state	x	y	type_text	locality	status	other_nam
<a href="#">Edit Attributes</a> <a href="#">Edit Geometry</a> <a href="#">Delete Row</a>	5	GPS	Faras	NF36050001	SU1103	Halfa	Northern	31.466367	22.2	Village	Halfa	Not Verified	Halfa
<a href="#">Edit Attributes</a> <a href="#">Edit Geometry</a> <a href="#">Delete Row</a>	5	GPS	Bi'r Jugub	NF36070001	SU1503	Halayeb	Red Sea	34.45	22.2				
<a href="#">Edit Attributes</a> <a href="#">Edit Geometry</a> <a href="#">Delete Row</a>	5	GPS	Lagag	NF36070004	SU1503	Halayeb	Red Sea	34.266567	22.2				

Map

Click the location on the map to edit its location.



[Save](#) [Cancel](#)

[Save](#) [Cancel](#)

# 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\_irs\_roads\_osm

geonode:arm\_irs\_streets\_osm

geonode:asp\_pol\_amenities\_osm

geonode:bfa\_irs\_roads\_osm

geonode:bfa\_irs\_streets\_osm

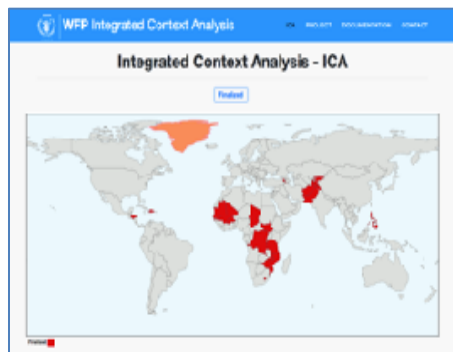
Filter



# 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.





- 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.