



Cartografía y tecnologías S.I.G

Visualización inteligente en el ámbito humanitario

Congreso GEOEUSKADI: Cartografía e información geográfica
24 – 25 de Septiembre 2018





SIG, Sistemas de Información Geográficos

Un SIG es un sistema de información en el que **se combinan mapas y datos** para: **visualizar, analizar, consultar, interpretar y / o comprender información geográficamente relevante** a través de la integración de hardware, software y recursos humanos para ser revelados en mapas, gráficos, 3D puntos de vista. ¡Esto es de gran poder!

Distintos puntos de vista y visualizaciones

Foto aérea:

Pro: Es la realidad del terreno; vista general

Con: Análisis solo es posible con el conocimiento del contexto del terreno; análisis limitado



Foto de un campo:

Pro: Es la realidad del terreno;

Con: Vista parcial del campo/análisis limitado; análisis solo es posible con el conocimiento del contexto del terreno;





Datos tabulares (tablas de cálculos ..

Pro: Alto nivel de precisión de datos; mucha información

Con: No existe visualización de los datos; difícil de comprender; mucho tiempo para comprender y tomar decisiones.

ID	BusinessType	ResellerName	NumberEmployees	OrderFrequency	OrderMonth	FirstOrderYear
555-0173	Value Added Reseller	A Bike Store	2	S	5	2000
555-0127	Specialty Bike Shop	Progressive Sports	10	A	5	2000
555-0130	Warehouse	Advanced Bike Components	40	Q	6	2000
555-0173	Value Added Reseller	Modular Cycle Systems	5	S	4	2000
555-0186	Specialty Bike Shop	Metropolitan Sports Supply	13	A	6	2000
555-0112	Warehouse	Aerobic Exercise Company	43	Q	6	2000
555-0173	Value Added Reseller	Associated Bikes	8	S	4	2000
555-0171	Specialty Bike Shop	Exemplary Cycles	16	A	5	2000
555-0130	Warehouse	Tandem Bicycle Store	46	Q	5	2000
555-0127	Value Added Reseller	Rural Cycle Emporium	11	S	6	2000
555-0159	Specialty Bike Shop	Sharp Bikes	19	A	5	2000
555-0191	Warehouse	Bikes and Motorbikes	49	Q	5	2000
500 555-0127	Value Added Reseller	Country Parts Shop	14	S		
500 555-0167	Specialty Bike Shop	Bicycle Warehouse Inc.	22	A	6	2000
500 555-0140	Warehouse	Budget Toy Store	52	Q	6	2000
500 555-0132	Value Added Reseller	Bulk Discount Store	17	S	6	2000
555-0147	Specialty Bike Shop	Trusted Catalog Store	25	A	4	2000
555-0132	Warehouse	Catalog Store	55	Q	5	2000
555-0195	Value Added Reseller	Center Cycle Shop	20	S	4	2000
555-0113	Specialty Bike Shop	Central Discount Store	28	A	6	2000
555-0116	Warehouse	Chic Department Stores	58	Q	6	2000
555-0121	Value Added Reseller	Travel Systems	19	S	5	2000
555-0122	Specialty Bike Shop	Bike World	31	A	6	2000
555-0164	Warehouse	Eastside Department Store	61	Q	6	2000
555-0161	Value Added Reseller	Coalition Bike Company	18	S	6	2000
555-0115	Specialty Bike Shop	Stylish Department Stores	34	A	6	2000
555-0185	Warehouse	Sports Sales and Rental	64	Q	4	2000
555-0163	Value Added Reseller	Commuter Bicycle Store	17	S	5	2000
555-0144	Specialty Bike Shop	Cross-Country Riding Supplies	37	A	5	2000
555-0110	Warehouse	Cycle Merchants	67	Q	6	2000
500 555-0198	Value Added Reseller	Wheels Inc.	16	S	5	2000
500 555-0182	Specialty Bike Shop	Precision Gears Inc.	40	A		
500 555-0189	Warehouse	Global Sports Outlet	70	Q	6	2000



Datos en Texto:

Pro: datos de calidad; permite interpretaciones personales (según tus competencias)

Con: No es visual; no es cuantificable

in search of safety

Rows of white tents in Qah camp cover a former olive grove. Remaining trees are being used to erect washing lines. From the camp is a view of a nearby village and acres of olive orchards spread over rolling hills.

The scenery belies a harsh reality. Just two weeks ago, government forces dropped bombs nearby, residents say, creating a panic as people ran desperately for the Turkish border. No deaths were reported, but the situation remains tense.

During the incident, six missiles hit both Qah and Atma, according to Hassan, 35, a former police officer who has joined the Free Syrian Army (FSA) and lives with his family in the camp.

Unlike official refugee camps, where armed groups are prohibited, the FSA and its affiliates maintain control here. Gunfire bursts out in Qah as rebels celebrate the acquisition of a new cache of weapons. A truck mounted with a rocket launcher rolls through the camp.

The FSA presence is both a blessing and a curse for civilians seeking shelter here. Rebels have controlled the territory, making it safe and secure, but their presence makes the area a legitimate target for missile attacks and bombing by government forces.

Nearly everyone wants to get into Turkey, Hassan explained, where they believe there is better housing, more

“[The UN appeal] is indicative of the rapid

Khor Wharal, Sudan



Description

This map shows a very high resolution Pleiades 1B satellite image of the Khor Wharal camp, White Nile State, Sudan as of 07 May 2017.

Cartographic information



Scale Main Map: 1: 5.000 for A3 prints
Map projection: UTM Zone 38N, Datum: WGS 84
Grid: Lat/Lon (DMS), Datum: WGS 84



Data sources

<u>Satellite data</u>	<u>Vector data</u>
Pleiades 1B	Overview Map: GAUL (DFAO)
Acquisition date: 07/05/2017	Roads: OSM
Copyright: DigitalGlobe	
Source: EUSI	
Spatial resolution: 0.5 m	

This map has been generated by optimizing the material available. Boundaries or naming information implies no endorsement from the producer. Geographic information has distortions due to the scale, resolution, date and interpretation of the original source materials. The producer accepts no legal responsibility or liability whatsoever with regard to the use of this product.

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Description
 This map shows a very high resolution Pleiades 1B satellite image of the Khor Warai camp, White Nile State, Sudan as of 07 May 2017.
 In total 3,819 dwellings were identified: 64 facility buildings, 1,748 dark dwellings (e.g. houses with dark or blue roof), 1,750 white dwellings, 61 tunnels

Legend

Dwelling types

- Facility buildings
- Dark dwellings
- White dwellings
- Tunnel tents
- Tukuls

Camp extent

Camp statistics

Dwelling type	#
Facility buildings	64
Dark dwellings	1,748
White dwellings	1,750
Tunnel tents	61
Tukuls	156
Total dwellings	3,819

Dwelling type in percent

Cartographic Information

0 100 200 metres

Scale Main Map: 1: 6,000 for A3 prints
 Map projection: UTM Zone 36N, Datum: WGS 84
 Grid: Lat/Lon (DMG), Datum: WGS 84

Data sources

Satellite data: Pleiades 1B
 Acquisition date: 07/05/2017
 Copyright: DigitalGlobe
 Source: EU3
 Spatial resolution: 0.5 m

Vector data: OpenStreetMap: GAUL (BPAO)
 Roads: OSM

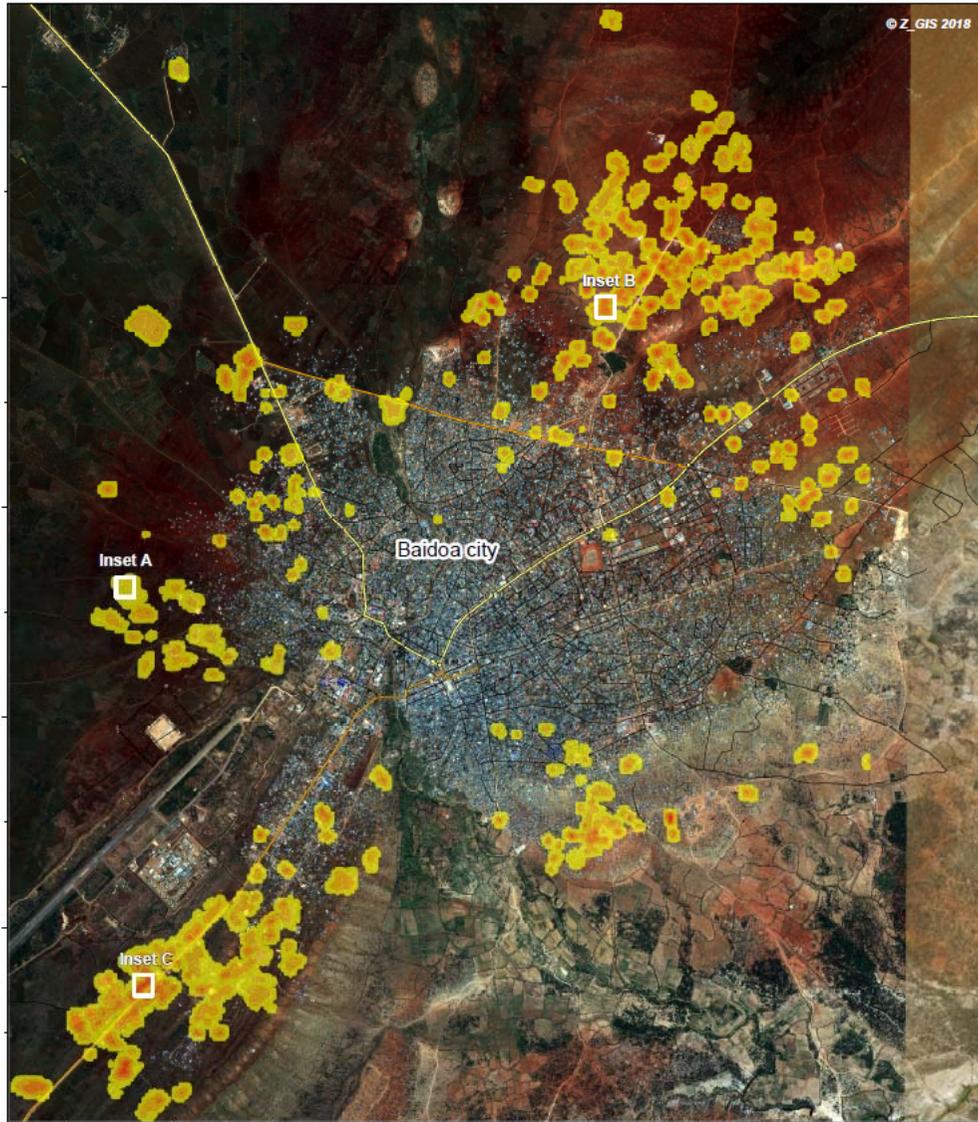
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30°44'10\"/>

30°44'35\"/>



Inset A: Low density



Inset B: Medium density



Inset C: Very high density



Description

This map shows the dwelling density of the refugee camps in Baidoa city, Bay Region, Somalia. The map is based on a very high resolution WorldView-02 satellite image acquired on 30 December 2017. Dwelling density is expressed in 5 categories based on absolute difference in dwellings per ha: (i) very low density: 1 to 100 dwellings/ha, (ii) low density: 101 to 300 dwellings/ha, (iii) medium density: 301 to 500 dwellings/ha, (iv) high density: 501 to 700 dwellings/ha and (v) very high density: 701 to 910 dwellings/ha. Insets show areas with a very low density of dwellings (Inset A), areas with medium density (Inset B) and such with very high density (Inset C). The camp covers an area of 226 ha.

Legend

Dwelling density class	
very low	1 - 100 dwellings/ha
low	101 - 300 dwellings/ha
medium	301 - 500 dwellings/ha
high	501 - 700 dwellings/ha
very high	701 - 910 dwellings/ha

Roads	
	Primary
	Secondary
	Minor
	Footway

Cartographic Information



Scale Main Map 1:30,500 for A3 prints
 Map projection: UTM Zone 38 N, Datum: WGS 84
 Grid: Lat/Lon (DMS), Datum: WGS 84

Data sources

Satellite data	Vector data
WorldView-02	Overview Map: GAUL (GFAO),
Acquisition date: 30/12/2017	Basemap: Esri, DigitalGlobe, GeoEye,
Copyright: Digital Globe	Barnhart Geographics, CNES/Airbus DS,
Source: ESRI	USDA, USGS, AeroGRID, IGN and
Spatial resolution: 0.5 m	the GIS Community

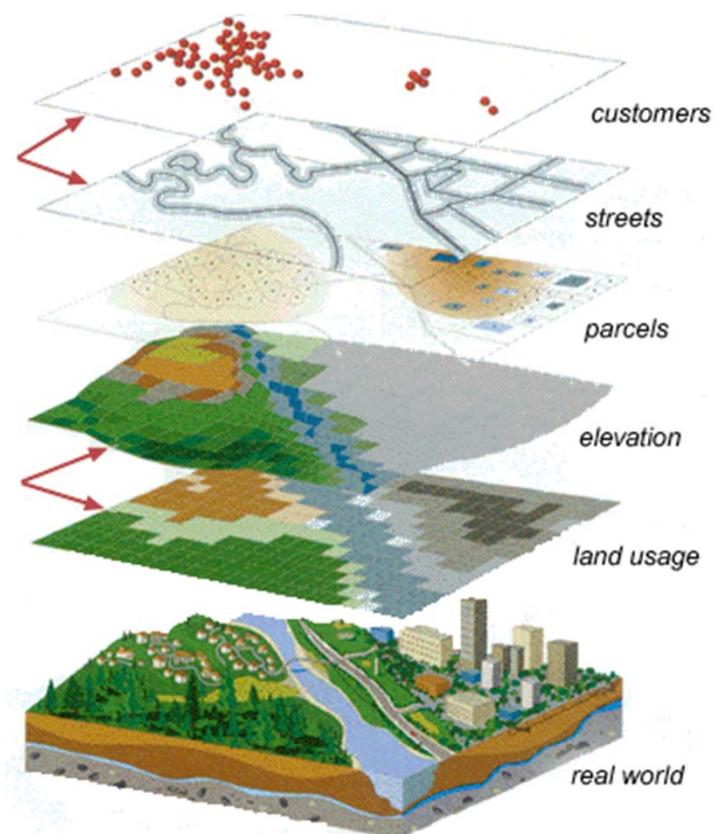
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- Información organizada en capas
- Posible seguir actualizando con información nueva agregando capas.
- la combinación de capas produce nueva información (las capas “fuentes de agua” y “estructuras de salud”

- Capa de estructuras de salud
- Capa de fuentes de agua
- Capa con áreas peligrosas
- Capa con campos de refugiados o desplazados
- Capa con ríos
- Capa con puntos de vacunación
- Capa con las letrinas en un acampo de refugiados
- Entre otras ..





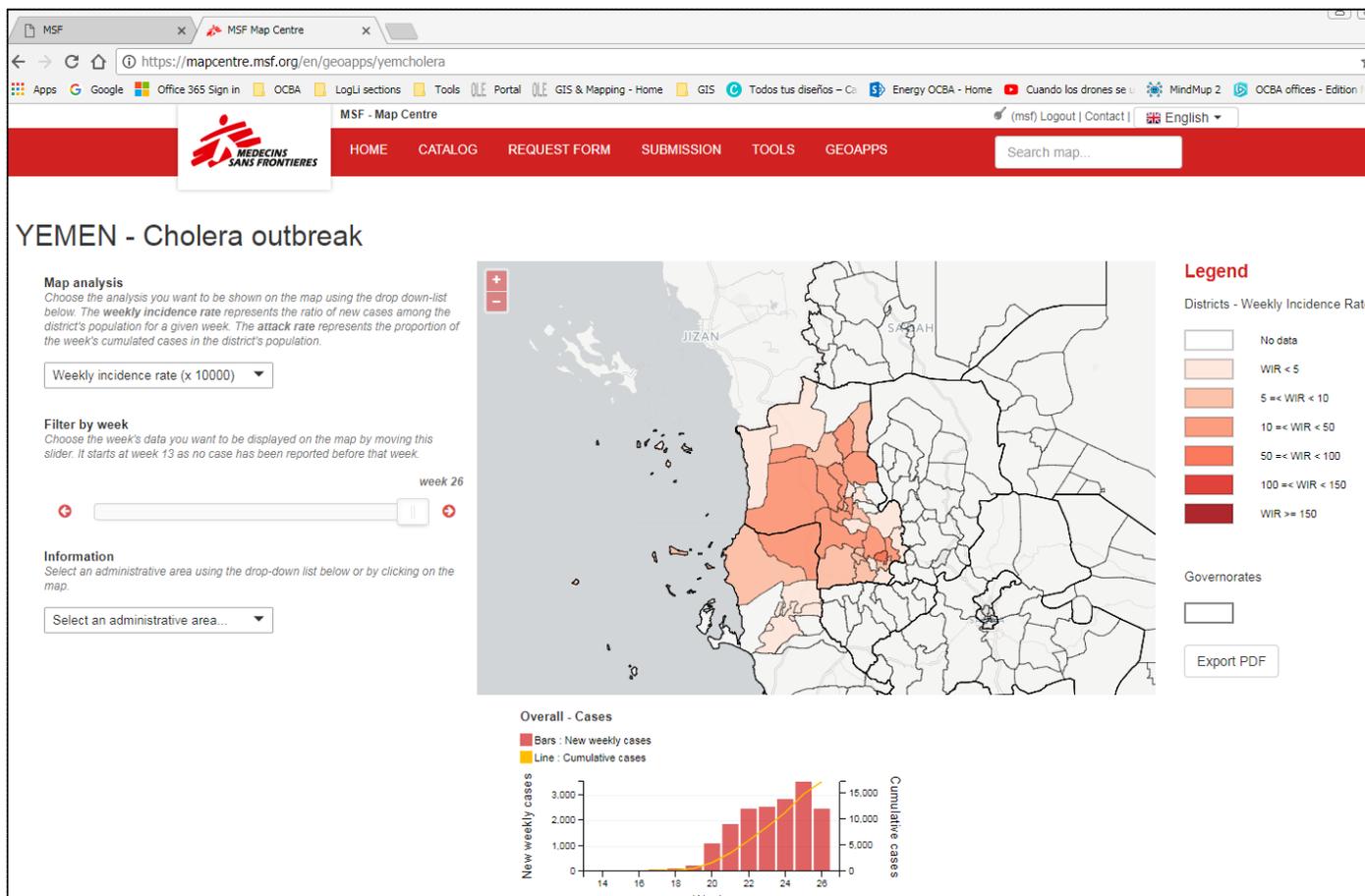
Cólera en Yemen

Entre el 27 de abril y el 15 de Julio 2017 344,751 casos sospechosos de cólera con 1,784 muertes (CFR: 0.5%) fueron reportados en el 91.3% de las Gobernaciones de Yemen y en 87.7% (292/333) de sus distritos.

A esto sumamos el contexto geopolítico extremadamente precario con una crisis abierta.



Mapa dinámico Cólera en Yemen



<https://mapcentre.msf.org/en/geoapps/yemcholera>



Muchas gracias

Preguntas?