



United Nations  
Educational, Scientific and  
Cultural Organization



International  
Hydrological  
Programme



Sustainable  
Development  
Goals

6  
CLEAN WATER  
AND SANITATION

## UNESCO-IHP WINS:

*A key tool in the implementation and  
monitoring IHP VIII activities*

**Youssef Filali-Meknassi, UNESCO-IHP**  
*IHP-WINS – 28/03/2017 – UN-Water  
Beirut – Lebanon*



**“Data is the new oil. Data centres are the factories of the 21st century. Data is the lifeblood of decision-making. It provides the raw material for accountability”**

Ban Ki-Moon, former United Nations Secretary-General  
during his official visit to Republic of Korea, Umoon  
at two forums on May 20 2015

# WINS is a geographical information platform

## Welcome to IHP-WINS

### Système de réseau d'information sur l'eau (IHP-WINS)

Le Programme hydrologique international (PHI) fondé en 1975 et mis en œuvre par séquences programmatiques ou phases de six ans, entre dans sa huitième phase (PHI-VIII) pendant la période 2014-2021. Il se consacre à la recherche dans le domaine de l'eau, à la gestion des ressources en eau, ainsi qu'à l'éducation et au renforcement des capacités.



Layers



Map



Users

# What is the Water Information Networking System (WINS)?

## Objectives:

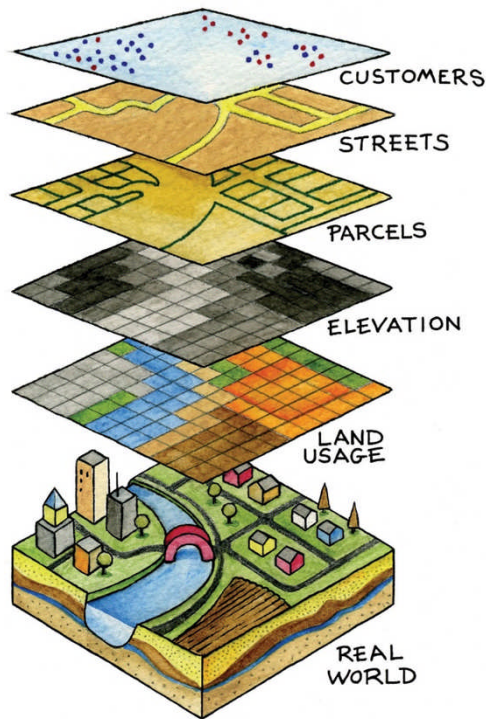
- To become a *global reference* for water-related decision makers and stakeholders at all levels.
- To store, share and analyse data on water resources
- To allow access to *open data from several sources* (UNESCO-IHP, other UN programmes, regional organizations, countries, etc.) and at various levels
- To support *decision-makers and stakeholders* involved in governance and management of water resources
- To *build capacity* in knowledge management



# What is the Water Information Networking System (WINS)?

**More than a database, WINS is:**

**A geographical  
information platform**



**A knowledge sharing  
platform**



**A networking  
platform**

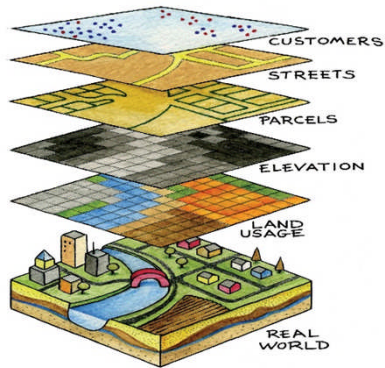




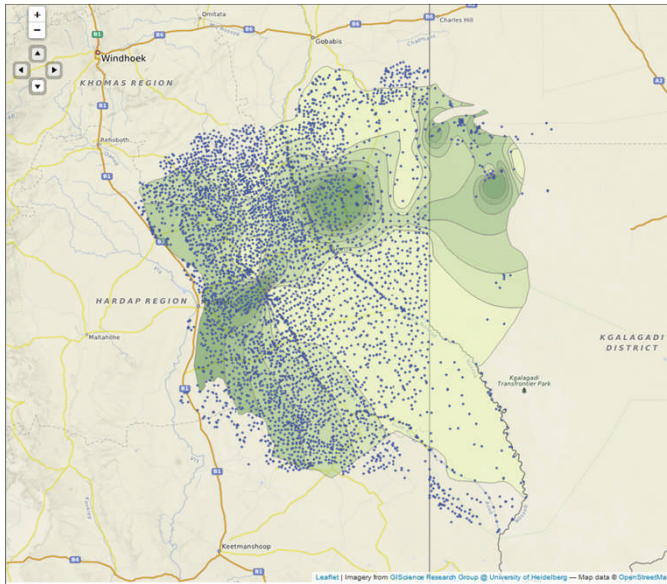
**WINS is a Geographical Information System**

# WINS is a geographical information platform

Data are in the form of **LAYERS** that are georeferenced (i.e. all data have coordinates)



**LAYERS** can be uploaded, viewed, downloaded, and **OVERLAID**



This creates **MAPS** that can be:

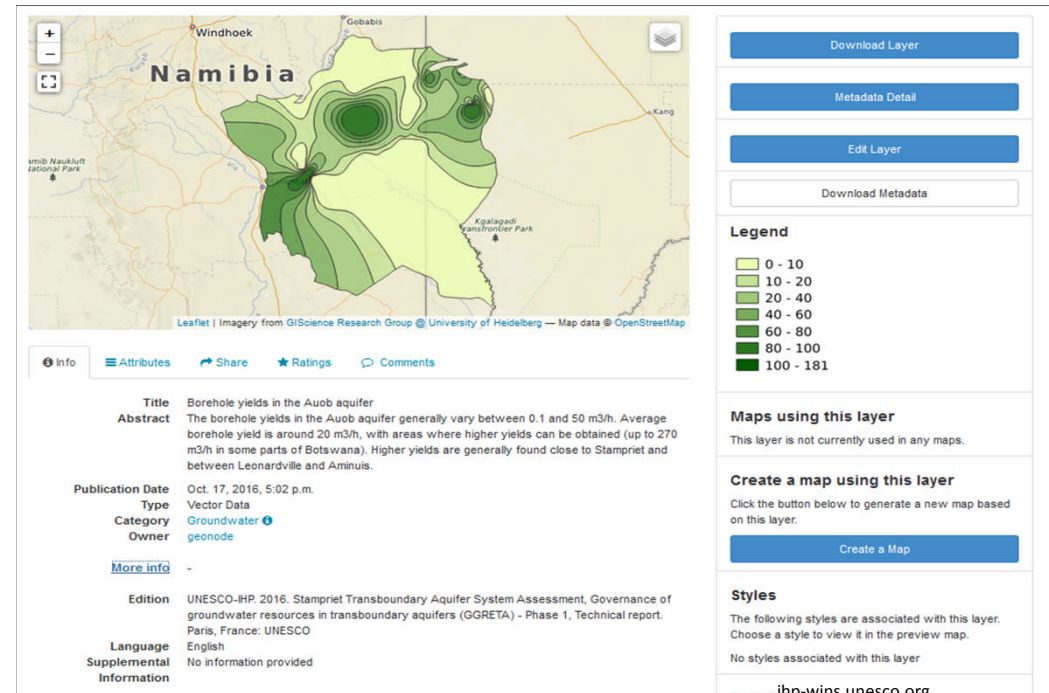
- printed,
- Saved on WINS,
- Exported (in image format: PDF, JPEG, etc...)

Ex: Boreholes and boreholes yield in the Stampriet aquifer (Namibia, Botswana, South Africa)

# WINS is a geographical information platform

Each layer has **METADATA** that show all information related to the layer:

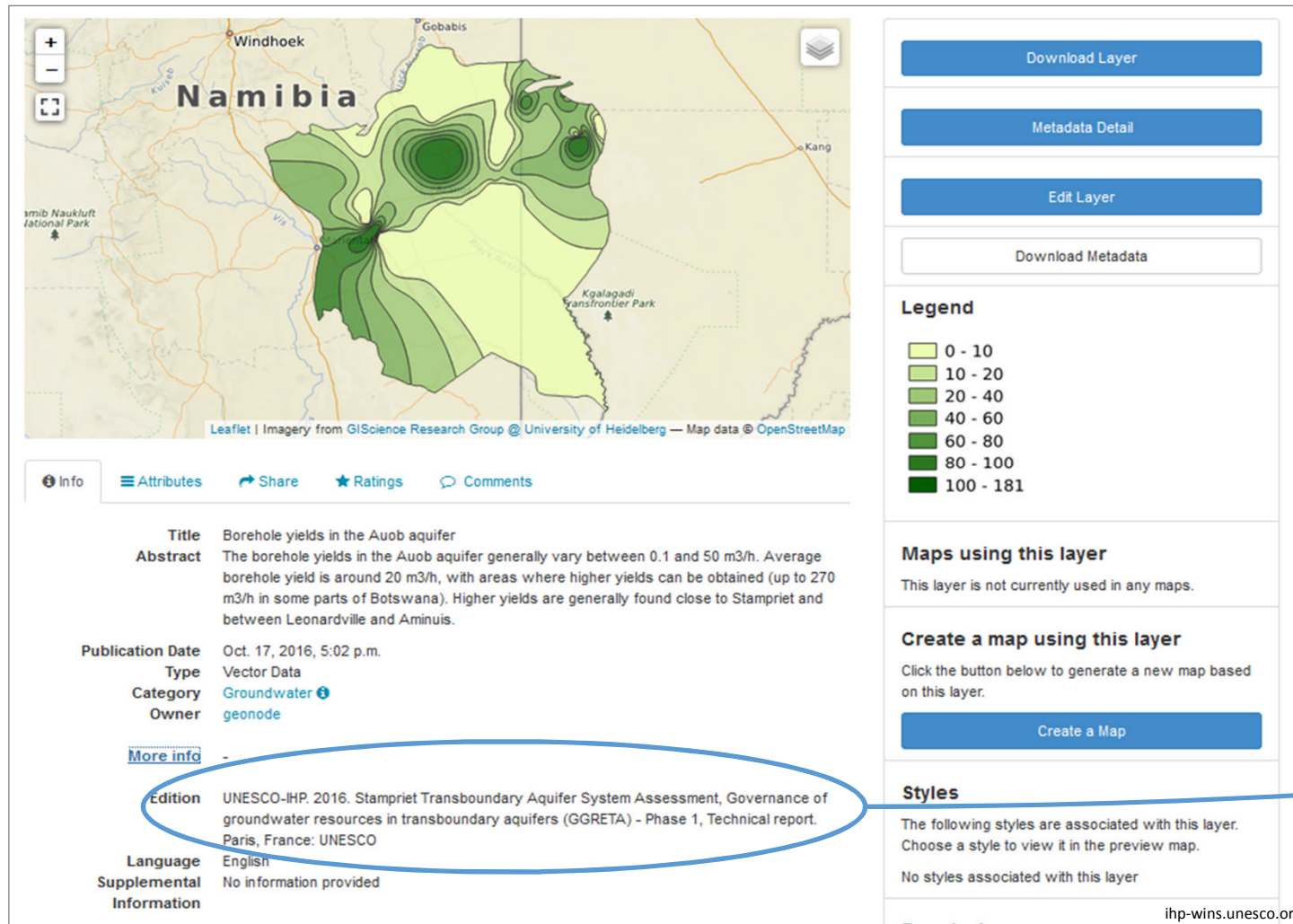
- Owner,
- Author,
- Date,
- Source,
- Abstract,
- Contact person, etc.





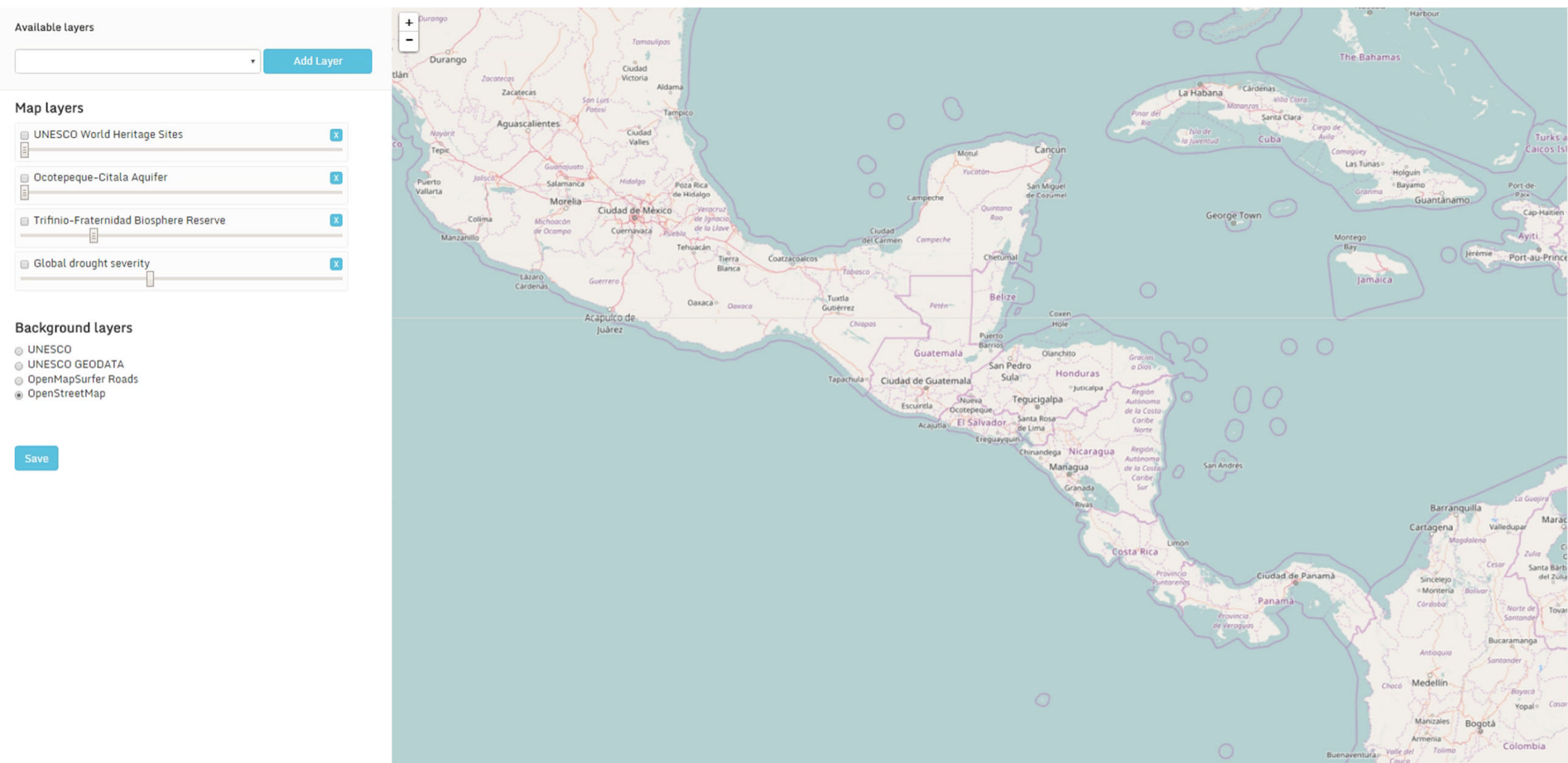
# UNESCO-IHP Borehole yields in the Auob aquifer

Data at regional level



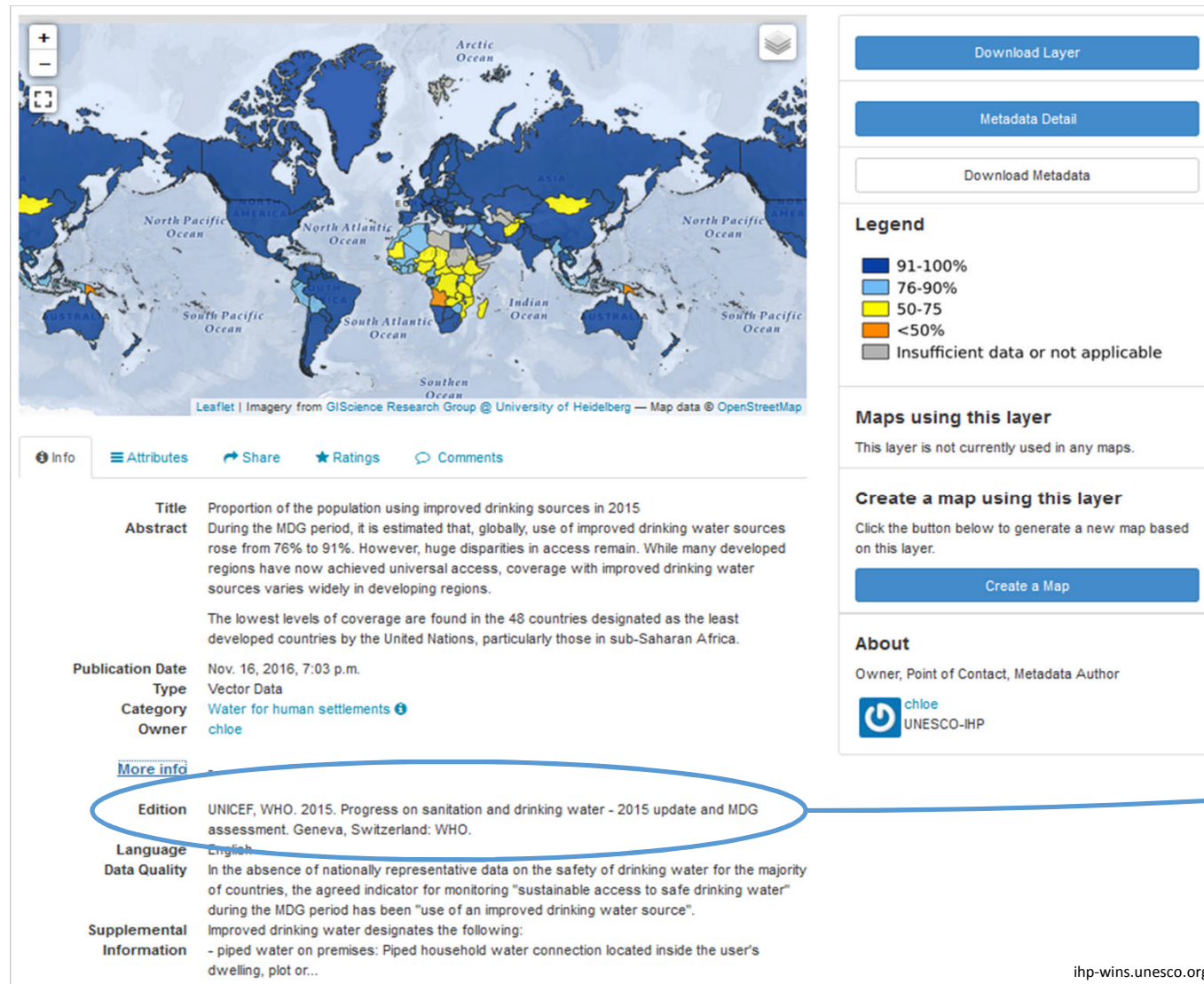
Data collected in the framework of a UNESCO-IHP project, and officially validated by Botswana, Namibia and South Africa

# WINS data can also be OVERLAID



# Proportion of the population using improved drinking sources in 2015

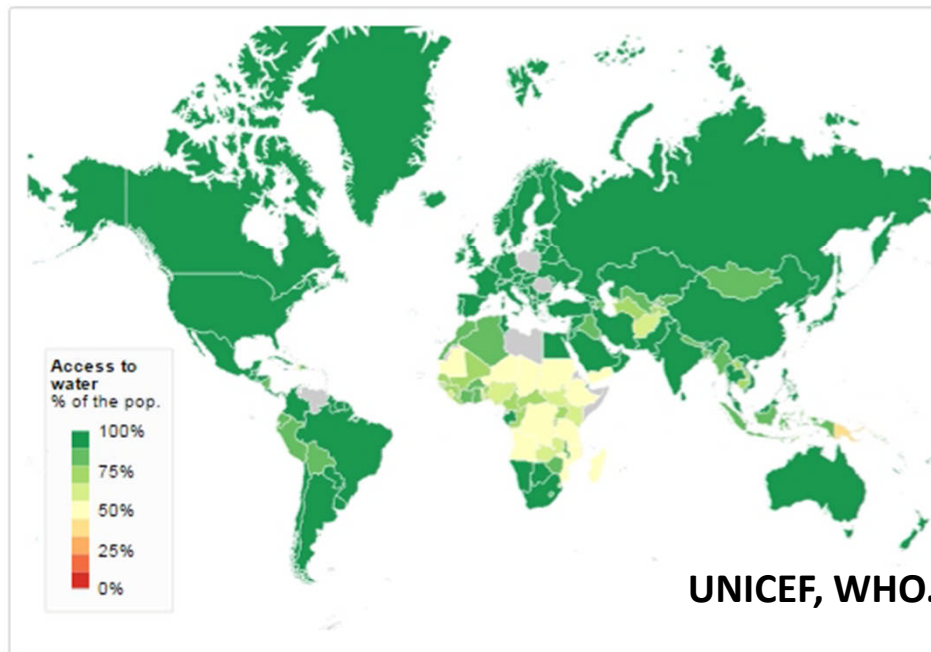
Data at country level



Data from a UN organization source

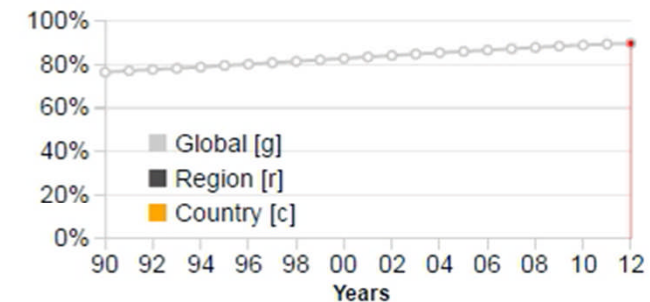
# WINS data can also be viewed over time

Access to improved water supply by country, on average [2012]



Country details

Select a country or click the curves



Focus (UNICEF regions)

- ☒ Global
- ☐ Industrialized countries
- ☐ Central and Eastern Europe, CIS
- ☐ East Asia and the Pacific
- ☐ South Asia
- ☐ Middle East and North Africa
- ☐ Eastern and Southern Africa
- ☐ West and Central Africa
- ☐ Latin America and the Caribbean

Options

Choose time series to display:  
Access to...

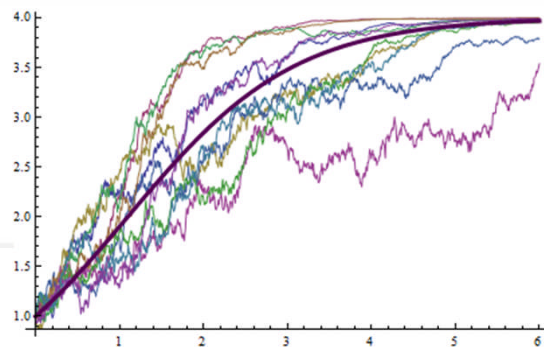
water supply ▾ on average ▾

Animation controls:

Pause Replay

Choose animation speed:  
(milliseconds per year)

20







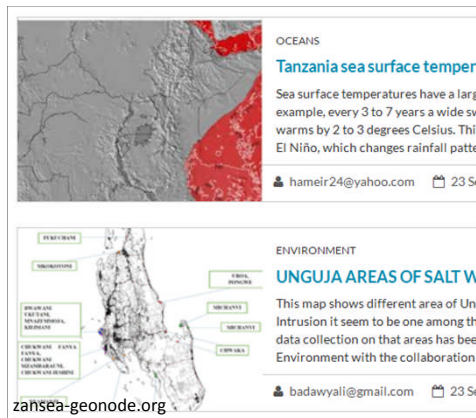
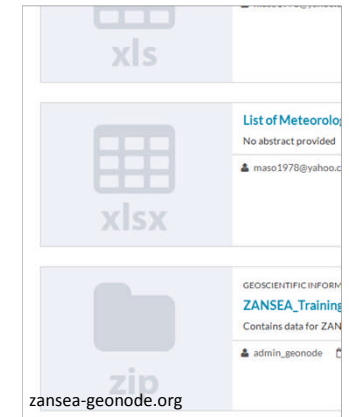
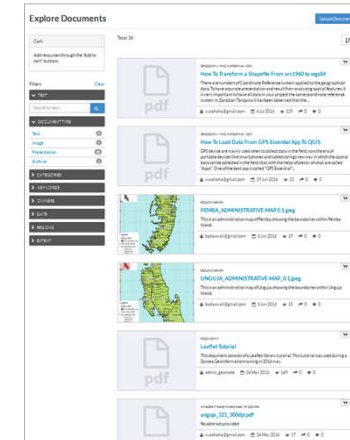
**WINS is a knowledge sharing platform**



# WINS is a knowledge sharing platform

Various types of **DOCUMENTS** can be stored and accessed on WINS (e.g. databases, reports, graphs, tables, videos, webinars, ...)

**DOCUMENTS** can be viewed, printed and/or downloaded.



This allows to create an **INSTITUTIONAL MEMORY** of the work related to water resources

As for layers, each document has **METADATA** that give all information: owner, author, date, source, abstract, contact person, etc.




**WINS is a networking platform**

# WINS is a networking platform

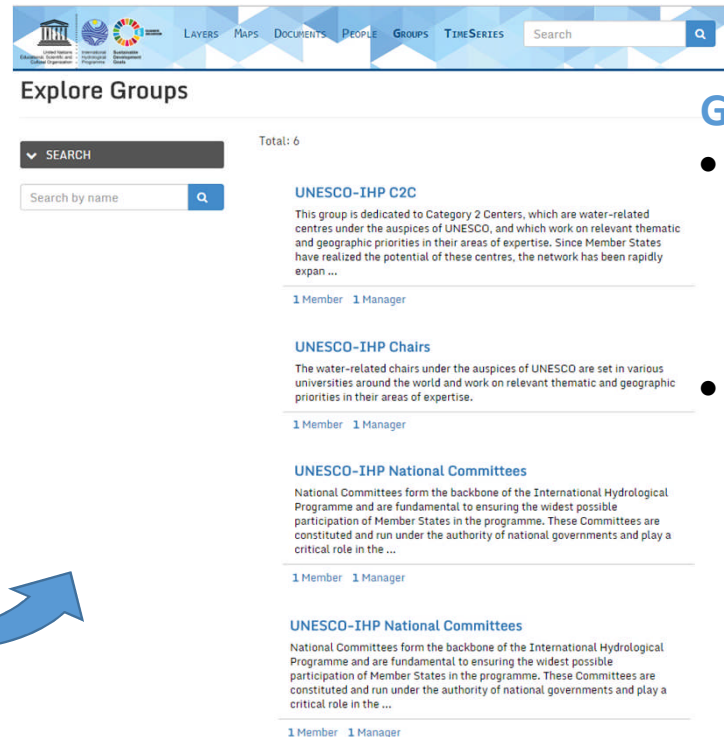
**USERS** and **GROUPS** membership allow people to network.

**USERS** can be members of **GROUPS**

	<b>Chloé</b>
	Email
	Position
	Organization
	Location
	Voice
	Fax
	Description
	Keywords
ihp-wins.unesco.org	

## USERS

provide information on their activities (e.g. comments, documents rating, upload of information, etc...)



Explore Groups

SEARCH

Search by name

Total: 6

**UNESCO-IHP C2C**  
This group is dedicated to Category 2 Centers, which are water-related centres under the auspices of UNESCO, and which work on relevant thematic and geographic priorities in their areas of expertise. Since Member States have realized the potential of these centres, the network has been rapidly expan ...  
1 Member 1 Manager

**UNESCO-IHP Chairs**  
The water-related chairs under the auspices of UNESCO are set in various universities around the world and work on relevant thematic and geographic priorities in their areas of expertise.  
1 Member 1 Manager

**UNESCO-IHP National Committees**  
National Committees form the backbone of the International Hydrological Programme and are fundamental to ensuring the widest possible participation of Member States in the programme. These Committees are constituted and run under the authority of national governments and play a critical role in the ...  
1 Member 1 Manager

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1 Member 1 Manager

## GROUPS:

- can be created for Member States, organizations, UNESCO-IHP sections, etc.
  - have **MANAGERS** who are **GROUP** admins
- GROUP** can be:
- public
  - public on invitation
  - private

In a **GROUP**, members can **EXCHANGE MESSAGES** and update on other's work

# How data will be uploaded?

Data is uploaded by **USERS** belonging to a **GROUP**, composed of **USERS** + **MANAGER**

A **USER** uploads data

The **USER** fills the metadata and sets data as “private”

A **MANAGER** checks work done by its **USERS**. After checking, he can change the permissions for data and make it public

**UNESCO-IHP** does the final and overall data format before data are released publicly

Until data and metadata are checked by an experienced **MANAGER**, they cannot go public, to avoid spreading errors.

**MANAGERS** can decide on:

- who can view the data
- who can download it
- who can update metadata
- who can edit styles
- who can manage it (update, delete, change permissions, publish/unpublish it)

**Upload Layers**

Drop files here

or select them one by one:

No files selected.

**Files to be uploaded**

Select the charset or leave default

UTF-8/Unicode

**Edit Metadata**

Editing details for geonode:jmpwater2015last

Owner  
close

Title  
Proportion of the population using improved

Date  
2016-11-16 07:03 PM

Date type  
Publication

Edition  
UNICEF, WHO, 2015. Progress on sanitation and

Abstract  
During the MDG period, it is estimated that, globally, one of improved drinking

**Permissions**

Who can view it?

☒ Anyone

The following users:

The following 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)

## UNESCO's Hydro free and/or Open-source software Platform of Experts (HOPE)



**HOPE -**  
**INITIATIVE .net**  
*for Africa*

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[TEAM](#)

[THE KIT](#)

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**SYMPOSIUM**

### International Symposium 2016

October 1, 2016 — 0 Comments



**TRAINING**

### Training in FREEWAT Software 2016

Search form



#### TAGS

FOSS

HYDROLOGY

MODELING

OPEN SOURCE

SDG

SOFTWARE

SOIL

SYMPOSIUM

TRAINING

WATER

WORKSHOP



# Advantages of WINS

**Accessible, interactive and user friendly platform for a wide audience**

## State of the art technology:

- *Open source and extendable IT architecture* — — — — →
- Federated data search
- Non-commercial tool with *reduced maintenance costs*
- Less dependent on specific technologies and vendors
- WINS has no cost for the Member States



## Sustainability:

- WINS is a direct contribution to IHP's Intergovernmental process and part of the Intergovernmental Programme, which ensures its sustainability.



# Advantages of WINS

## Data security and reliability:

- Data is hosted and safely stored at UNESCO HQs server
- Protected workspaces to store, process and visualize information
- Transparency through data rating system and possibility to leave comments
- Immunity on data

General Details	
Dataset Title:	Domestic Energy Consumption, 2000
Time Period of Dataset(s):	01/01/2000 to 01/01/2006
Geographic Coverage:	England and Wales
Lowest Area Output:	Medium Layer Super Output Areas (MSOAs)
Supplier:	Department of Energy and Climate Change
Department:	Energy Statistics
National Statistics Data?	National Statistics
Revisions:	None
Data Quality	
This document provides a range of information that describes the data and details any points that should be noted when using the data.	
ONS has developed <a href="#">Guidelines For Maximum Statistics</a> which are based upon the six European Statistical Service (ESS) Dimensions of Quality. The dimensions are:	
<ul style="list-style-type: none"><li>• Relevance</li><li>• Accuracy</li><li>• Timeliness and Punctuality</li><li>• Accessibility and Clarity</li><li>• Comparability</li><li>• Coherence</li></ul>	
About the dataset	
(including the quality dimensions: <a href="#">Relevance</a> and <a href="#">Timeliness and Punctuality</a> )	
The dataset provides total and average consumption of domestic ordinary electricity, economy 1 electricity and gas as well as counts of meter points at Government Office Region (GOR), Local	



## WINS is in line with international standards on:

- Sharing of information (WMS, WFS, SOS)
- Connect to external data sources and systems



<https://en.unesco.org/ihp-wins>

**“IHP-WINS’ graphical representation of reliable data is one of the most powerful ways to raise understanding of one of the most complex problems – it will help decision makers”.**

Jack Moss, Executive Director,  
International Federation of Private Water Operators (AquaFed)

L'EAU