

Practical 'hands-on' workshop in the use of GIS, Smart data collection and data visualization for WASH professionals



DSS water

510

Objective of the workshop

We will explore the possibilities of finding and using secondary data to understand local conditions in the field. You will learn how to digitally collect data, use mapping software, import field measurements (i.e. GPS measurements) and combine maps with field experiences. Mostly practical exercises and some theory will make up the workshop. Rationale: WASH delegates will start to use and collect data in a standardised manner, for sustainability purposes.

Target audience

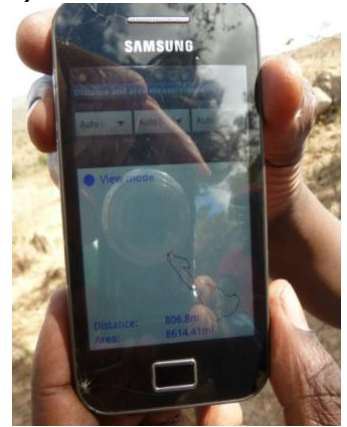
The workshop is meant for enthusiastic WASH professionals with field experience who want to make use of digital tools to improve the quality of their work. The range is anywhere from young professionals who use computers on a day-to-day basis and want to learn how to use these tools in the field, to experienced seniors who could use some assistance when using new digital tools: everyone is welcome. Preference will be given to WASH experts in the DSS data base, and WASH experts working or willing to work in the humanitarian field.



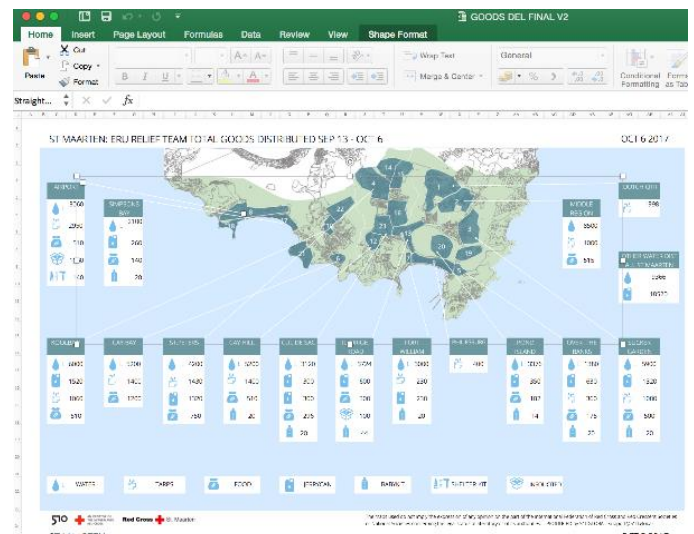
Example of water points in a catchment visualised in Google Earth

Topics that will be covered during the training:

- Before departure to the field being able to assess the local conditions using secondary data (open data) which includes: rainfall, topography (to evaluate possible flood issues), wind (e.g. support for solar panel structures), temperature (material use) and geology (soil type).
- Practical exercises on the use of GPS (handheld GPS or GPS inside your smartphone), the (in)accuracy of GPS and practical tools to use in the field.
- Mobile data collection technology that makes it easy to collect, store, visualize and share data. By using mobile data collection technology we can collect GPS locations, fill out forms, upload pictures, etc. Participants are introduced to the most useful technology in the context of WASH data collection.
- How to use Google Earth as an easy to learn tool to view maps and field data (e.g. GPS points) in a 3D map viewer and use as data viewer and presentation tool. Add your own data to the system: points, lines, polygons and learn how to add attributes to it (text, measurements and photos).
- Introduction to open data. Where to find useful datasets like rainfall, precipitation, elevation etc. There are many tools/webservices which provide these data sets and we will introduce some of them during the training.
- Learn how to add hardcopy maps (e.g. printed geological maps or scans from an old report) into your digital map repository so you can use them in combination with other data sources.
- Introduction to data visualization using QGIS and Microsoft Excel. We will give a basic introduction to QGIS. Microsoft Excel is the most commonly used tool for analyzing and visualizing data. We will demonstrate the importance of data tables and their layout that help visualize data in Excel with practical examples.
- Data responsibility in relation to EU regulation and data privacy policy of organizations.



Using a smartphone to measure the surface area of a sub-catchment



Data visualization with Excel

We'll be using actual WASH case studies to practice on and we highly encourage participants to bring their own case studies in order to directly apply it to your own projects.

This course will mainly focus on practical applications for WASH professionals to make their lives easier, both in the office and out in the field. Practical exercises are a major part of the workshop.

Duration: 2 days

Date: 7-8 June

Maximum number of participants: 20

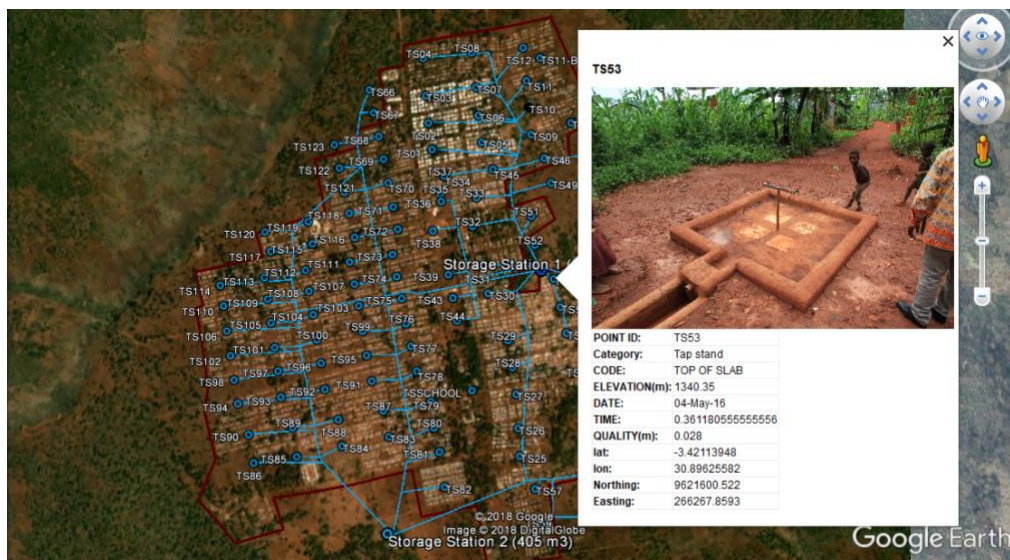
Organisers: [DSS water](#) with support of [Red Cross](#), [SamSamWater](#) and [510](#)

Location: Red Cross, Anna van Saksenlaan 50, 2593 HT The Hague

Apply by sending an e-mail to: dsswater@rvo.nl

Application deadline: 3rd of May

No previous GIS experience is necessary, but we will adjust the focus and level of the exercises depending on the level of experience of the participants.



Distribution system visualised in Google Earth

DSS water is initiated by the Ministry of Foreign Affairs, executed by the Netherlands Enterprise Agency, the Netherlands Red Cross and the Netherlands Water Partnership.

