TRAINING EVENT

INNOVATIONS IN MAPPING THE DIVERSITY OF URBAN SLUMS WITH FREE OPEN-SOURCE SOLUTIONS

WEDNESDAY, 12 FEBRUARY 2020   9:00 AM – 12:00 NOON

ADNEC, CAPITAL SUITES, FIRST FLOOR, ROOM NUMBER CS3

WUF 10   THE TENTH SESSION OF THE WORLD URBAN FORUM
ABU DHABI, UAE

http://slumap.ulb.be   http://react.ulb.be

INNOVATIONS IN MAPPING THE DIVERSITY OF URBAN SLUMS WITH FREE OPEN-SOURCE SOLUTIONS

QGIS

Participants should bring their own laptop with the Long Term Release QGIS3.4 ('Madeira') already installed. The software can be downloaded at no cost from https://www.qgis.org/en/site/forusers/download.html
Windows users should select the Standalone installer (not OSGeo4W).
QGIS will run on most devices, but you will need at least about 5GB free disk space.

OBJECTIVES

This training event aims to foster the uptake by stakeholders of digital maps of urban slums/informal settlements produced from satellite imagery, and to provide scientists working on slum mapping with a better understanding of stakeholders' needs.

You will gain insight into the scope, potentials and limitations of spatial datasets on slums produced by satellite imagery. During hands-on exercises, you will learn the basic skills to handle these datasets in a free open-source Geographic Information System (GIS). You will implement simple methods to derive information for producing indicators and enriching the understanding of the diversity, specific assets and potential vulnerabilities of deprived neighbourhoods.

Stakeholders and scientists will learn from each other: On one hand, increased awareness of existing data and their potential will promote user uptake and best practices. On the other hand, participants' feedback will fuel the SLUMAP (http://slumap.ulb.be/) research project (Remote Sensing for Slum Mapping and Characterization in sub-Saharan African Cities).

The exercises are designed for an audience with no or little prior technical knowledge (planners, members of NGOs, community members, researchers and decision makers (global to local), and anybody with an interest in the topic).

PROGRAMME

1. Introduction (25 min.)
- Short introduction round - getting to know the participants
- Overview of the SLUMAP research project
- Short introduction to the process of mapping deprived areas with satellite images and machine learning

2. Hands-on training using own laptop (130 min.)
- Getting started with QGIS and the datasets derived from satellite images
- Exercise 1:   Producing slum indicators in administrative units and creating maps
- Exercise 2:   Enriching slum characterization with open data from other sources (e.g., OpenStreetMap)
- Exercise 3:   Mapping population at risk of flooding in slums with open datasets (e.g., WorldPop, SRTM)

3. Discussion and conclusions (25 min.)
- Potential and limitations of the results
- Participants' feedback

Website: http://slumap.ulb.be/news/wuf/
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