**Mapping Sanitation across African cities**

**Work Package 1, OVERDUE**

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**Objectives:**

Many objectives can be sought through a mapping, such as:

* Creating a spatial database that can be interrogated by decision makers, NGOs, CSOs, development agencies/program and which contains information relevant for sanitation planning, maintenance
* Locating research results (displaying photos, voices, observations)
* Generating an alternative map of sanitation, one which puts on the map things that were previously left blank, ignored, overlooked
* Giving space to lived experiences of sanitation (and thus scaling up the stories of residents by making them accessible through talking maps)
* Generating provocations and disrupting promises: maps can be tools to generate reactions and initiate action
* Mapping as process: by making maps, actor come to realize, care, engage and mobilize for things. So the way the map is built, informed, updated is important, and can be a way to challenge sanitation injustices.

**Examples of sanitation mapping & online platforms**

Several platforms have already been set up as well as story maps published and detailed mapping initiatives conducted. Below is a table with some examples we might want to look at to set our own goals and objectives.

These different projects are not at all focused on sanitation but are interesting examples of indigenous/grounded mapping and empowering with maps.

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| **Name** | **Technical** | **Link/reference** |
| **Re-mapping approach (ReMap Lima, ReMap Freetown).** ReMap Freetown developed by Allen, A., Koroma, B., Lambert, R. and Osuteye, E. in collaboration with Hamilton, A. (technical platform assemblage) and Kamara, Macarthy, J., S., Sellu, S. and Stone, A. (coordination community-led data collection) | Online Arcgis maps, hosted by UCL (requires ESRI/Arcgis maps).  Feeding data by entering georeferenced things at the community/partner level (?)  Need for a GIS specialist to set up (?)  Interest is multiplicity of tabs enables to map different things such as voices, places, observations, and to allow for public enquiries (see capacity to act). | <https://uclondon.maps.arcgis.com/apps/MapSeries/index.html?appid=6fa93fe520bb4d14a627b2546e8c8764> |
| **City Sanitation Planning Online tool** (developed by BORDA an NGO specialized in sanitation for Dar Es Salaam, https://www.borda.org/) | Online map relying on Mapbox (<https://www.mapbox.com/pricing/>), very easy to interrogate and automatically generates a pdf with “sanitation solutions” | <http://citysanitationplanning.org/> |
| **SPARK online story maps**  A short history of Urban Aid Policy and Programming in the UK | Example shared by Colin integrating maps, historical pictures, videos, short text. It cannot be interrogated as such but combines historical information and maps to reframe a narrative. | <https://spark.adobe.com/page/SGNatfuIYGoN1/> |
| **ArcGIS online story maps**  Combines maps, photos, videos online to tell a story | Example on Sanitation and Wastewater in Africa | <https://grid-arendal.maps.arcgis.com/apps/Cascade/index.html?appid=caf411c40c3442b782406de631bddb2f> |
|  | Other example of ArcGIS story map: What’s gender got to do with it? | <https://grid-arendal.maps.arcgis.com/apps/Cascade/index.html?appid=31c83eac7bad4d5e9530961e93f303a1> |
|  | Other story map on water and sanitation: story map water and sanitation: | <https://storymaps.arcgis.com/stories/b68e7dd0d01b460092176369608eb93d> |
| **Sanitation Mapper** (developed by WaterAid based on their Water Mapper) | Excell spreadsheet that can be filled by partners (need to know the coordinates of the facility) and then exports spatialized dataset to be overlaid to google earth  Free to download + userguide  Could be used to standardize data collection and be fed in to a Re-map approach. | <https://www.jstor.org/stable/24686819?seq=1>  Software and info are downloadable here: <http://www.waterpointmapper.org/Sanitation.aspx> |
| **Sanitation mapping**, Visakhapatnam (USAID funded a city wide mapping of sanitation in Indian cities. I could not find the map online but it might bee worth exploring further in this direction) |  | <https://www.wsup.com/insights/sanitation-mapping-visakhapatnam-data-analysis-report/> |
| **(Humanitarian) Open Street Map (**this is most likely to be a source rather than a way to display information but it might be worth looking at the communities of mapper that already exist on the ground and what they use | There is a team doing Urban Risk Mapping in Mwanza: <https://www.hotosm.org/projects/mwanza-urban-risks-mapping-ramani-mwanza/> | <https://www.hotosm.org/> |
| **Sanitation mapping to improve access in an informal settlement** (case study rather than online tool) | Used GeoMedia from Hexagon (outsourcing the technical part) | <https://www.geospatialworld.net/article/mapping-sanitation-helping-in-resolve-disturbing-sanitation-conditions/> and <https://www.hexagongeospatial.com/products/power-portfolio/geomedia> |
| **Pascale & Tim’s work in Tanzania** (the one next to the wastewater treatment plant, mapped out the facilities, constraints, trajectories). |  |  |
| **Google maps online maps** | This is more a tool than an existing work or software, but looking at the great map in the African cities – Future learn, it could be a way to document sanitation ? | <https://support.google.com/mymaps/answer/3024454?hl=en&amp;ref_topic=3188329> |
| **Participatory mapping and online maps set up by Digital Democracy** | Worked with Waorani people in Ecuador using Mapeo (offline community based mapping software -free to download and easy to use), and online through MapBox. Lots of tutorial in multiple languages, and made for decolonial & community empowering mapping & maps | <https://www.digital-democracy.org/blog/indigenous-cartography-decolonizing-mapmaking/> |

Other leads to explore further:

1.Schweitzer et al. (2014) Mapping of Water, Sanitation and Hygiene Sustainability Tools --> The paper is not focused on maps but might contain additional platforms and interfaces. Pdf is in WP1 folder. (I looked quickly and only identified the WaterAid mapper listed below).

2.<https://doi.org/10.1016/j.scitotenv.2013.06.005>

3. Scott et al. (2015) Sanitation cityscapes

4. Rita Lambert’s work on mapping and power

5. Explore the amazing work around indigenous cartographies

<https://www.wordsinspace.net/mapsmedia/fall2017/portfolio/october-11-indigenous-maps-other-spatial-ontologies-epistemologies/>

6. But also the decolonial Atlas: <https://decolonialatlas.wordpress.com/2016/04/12/inuit-cartography/>