

Mapping scenario: Power and Light are important resources to advance technologies, increase personal task efficiency, benefit health and safety or extend hours of education. Using the dataset “Main Lighting Sources Averaged to Counties in 2009” visualized distribution of more advanced infrastructure is drawn in comparison to geographic locations where electric or solar service is un-available from lack of infrastructure or where cost may be a barrier to use.

What do I want to get out of this project: I am making this map to display existing conditions in power sourcing across the counties of Kenya in a way that is readable and informative.

What do I want the users to get out of this map: This map may be used by non-profit initiatives, or local governments, where providing geographic trends related to lighting may be the first step in exploring various options to implement efficient and cost effective improvements to infrastructure. By visualizing existing sources of lighting fuel, there may be opportunities for improvement best suited for existing conditions.

Content requirements:

- Establish geographic context on basemap of Kenya.
- Provide markers in color of primary lighting power source, and in size of household percentage using the majority power source.
- Layer toggle to filter each light source, may double as legend.
- Provide aggregate data per county, providing name and all power sources and percentage of households using each source.

Functional Specifications:

- Bring in map tiles, with constraints to subject area, no need to drag beyond original screen load position, but allow for zoom.
- Create relative size makers, and function to determine this with color-coding to lighting source.
- Leaflet control method to establish layer toggle for up to 7 layers if ambitious, may limit to 3 (electric, solar, primitive) if 7 is overkill.
- If only 3 layers will need to create function to combine ‘primitive’ light source into one.
- Should be able to display aggregate data for each county without too much work, with hover over info box.
- Popup or some method to display main light source data. (maybe possible to display percent within marker)