Development Planning

Improving Access to Resources

What:

- Healthcare: Clinics, Hospitals, Doctors, Nurses...
- Education: Schools, Teachers, Classrooms...
- Water: Wells, Pumps, Taps...
- Electricity: Generators, Transformers, LV/MV line...

Where:

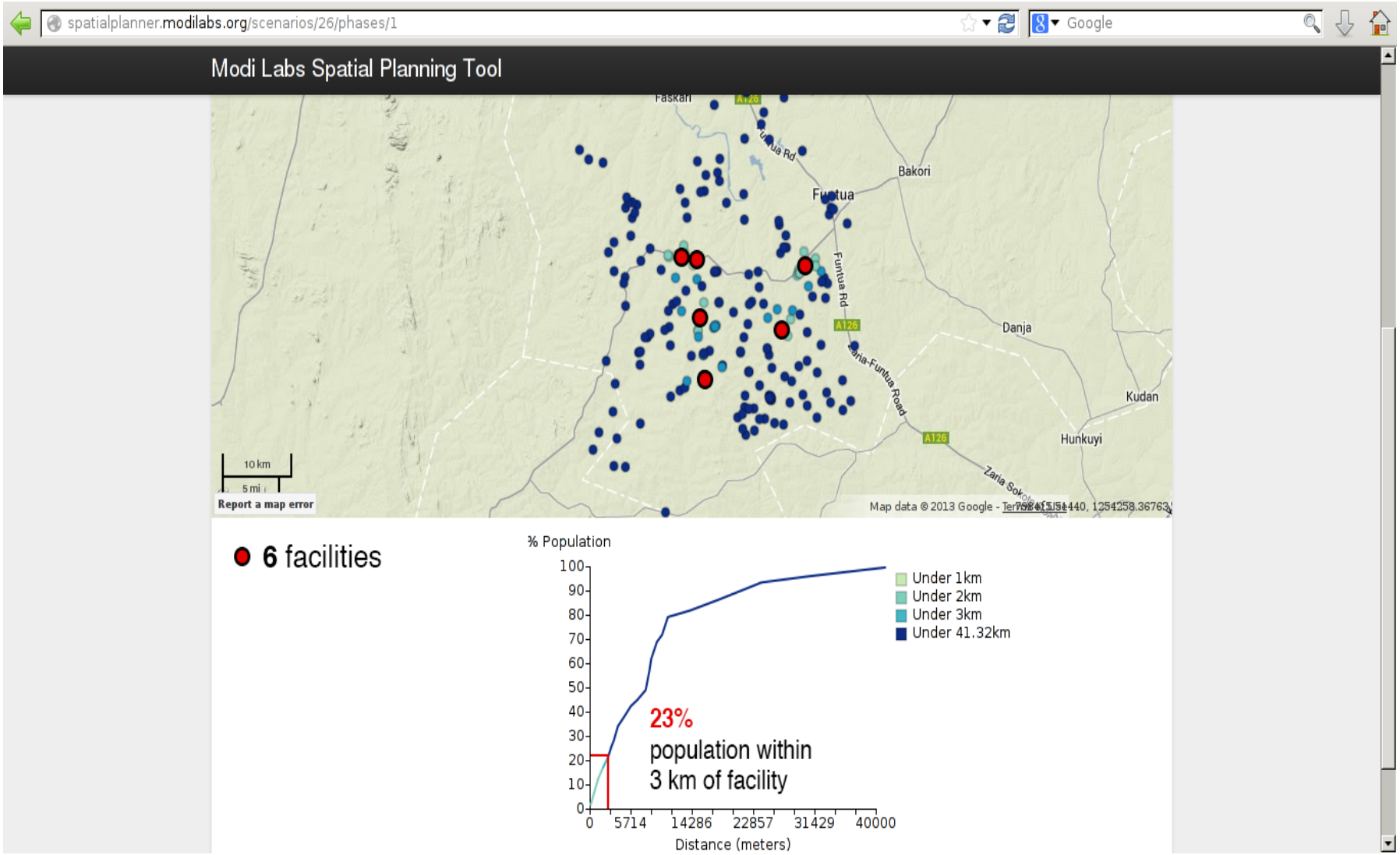
- Access is limited
- Sub-Saharan Africa (minus South Africa)
- India, Indonesia
- Rural regions

Process

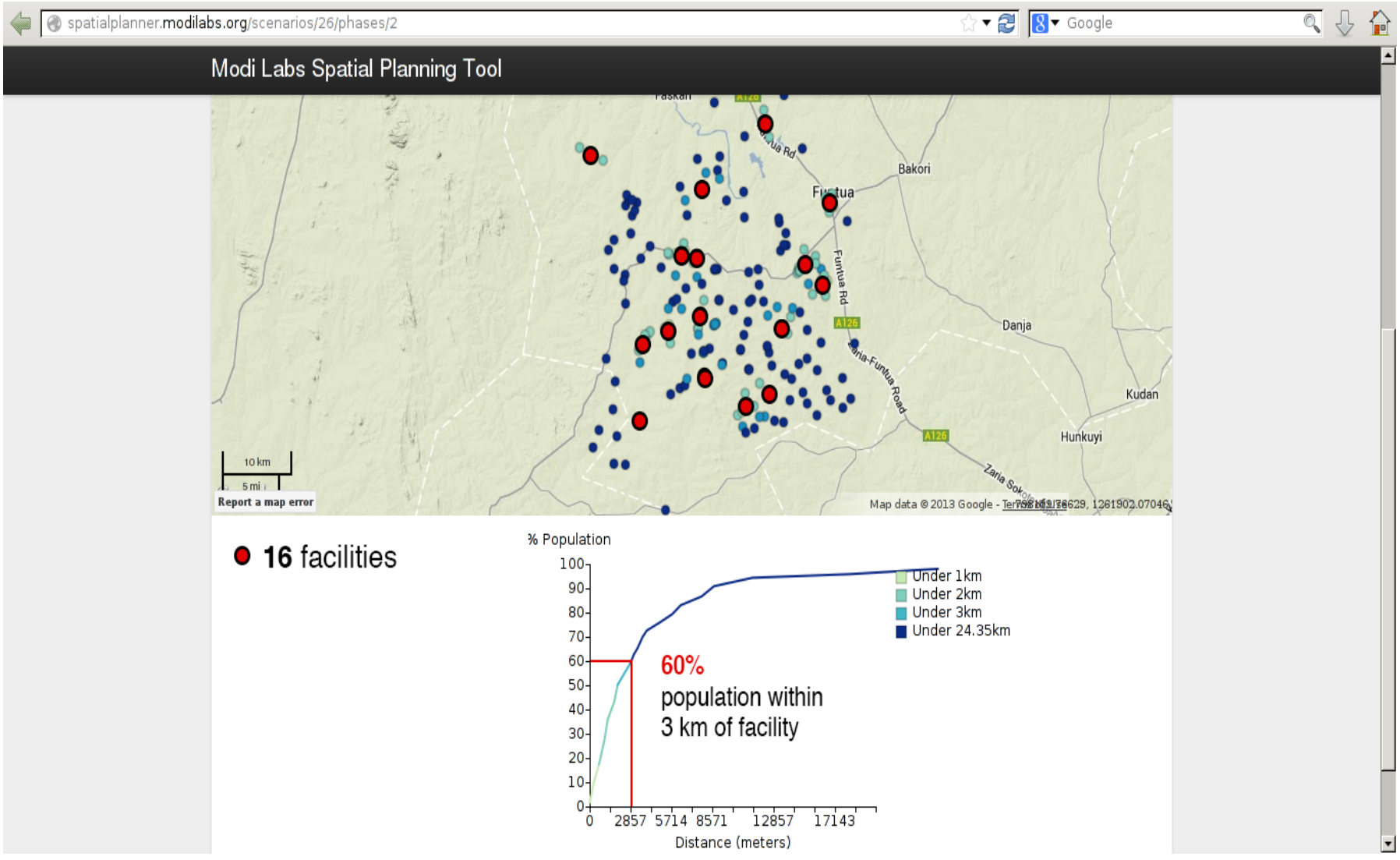
How:

- Identify problem
- Collect data: From existing sources, Formhub, other tools
- Frame it in economic terms (supply, demand)
- Analyze "gaps" in supply
- Develop plan to fill the gaps

Health Clinic Access Initial



Health Clinic Access Optimized



Electrification Planning

Sea Urchin Story (Healthcare is more effective with Electricity)

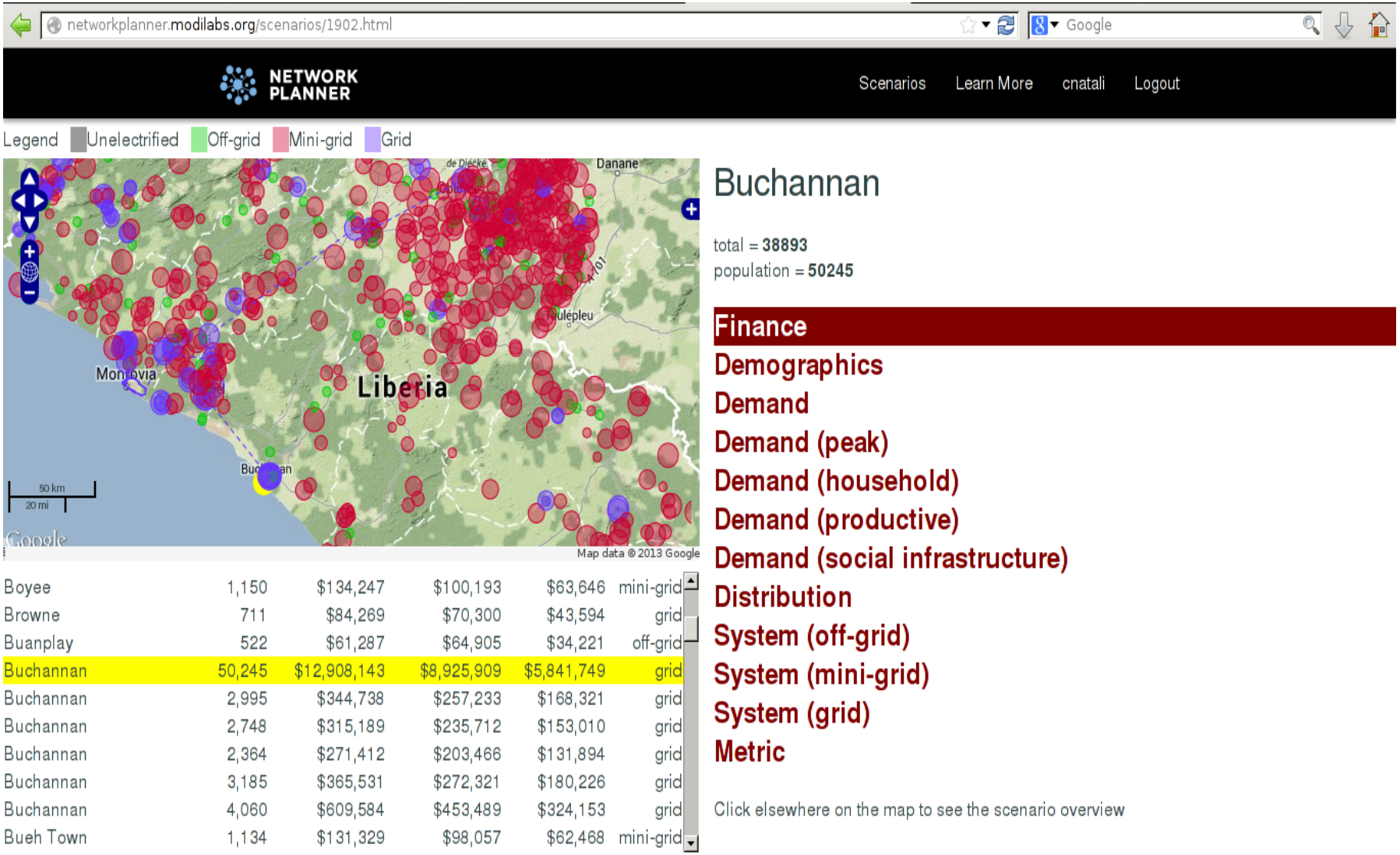
Inputs:

- Supply: Existing grid
- Demand: Settlements to be electrified
- Model Parameters: Generation, Distribution costs, Growth/Demand curves

Outputs:

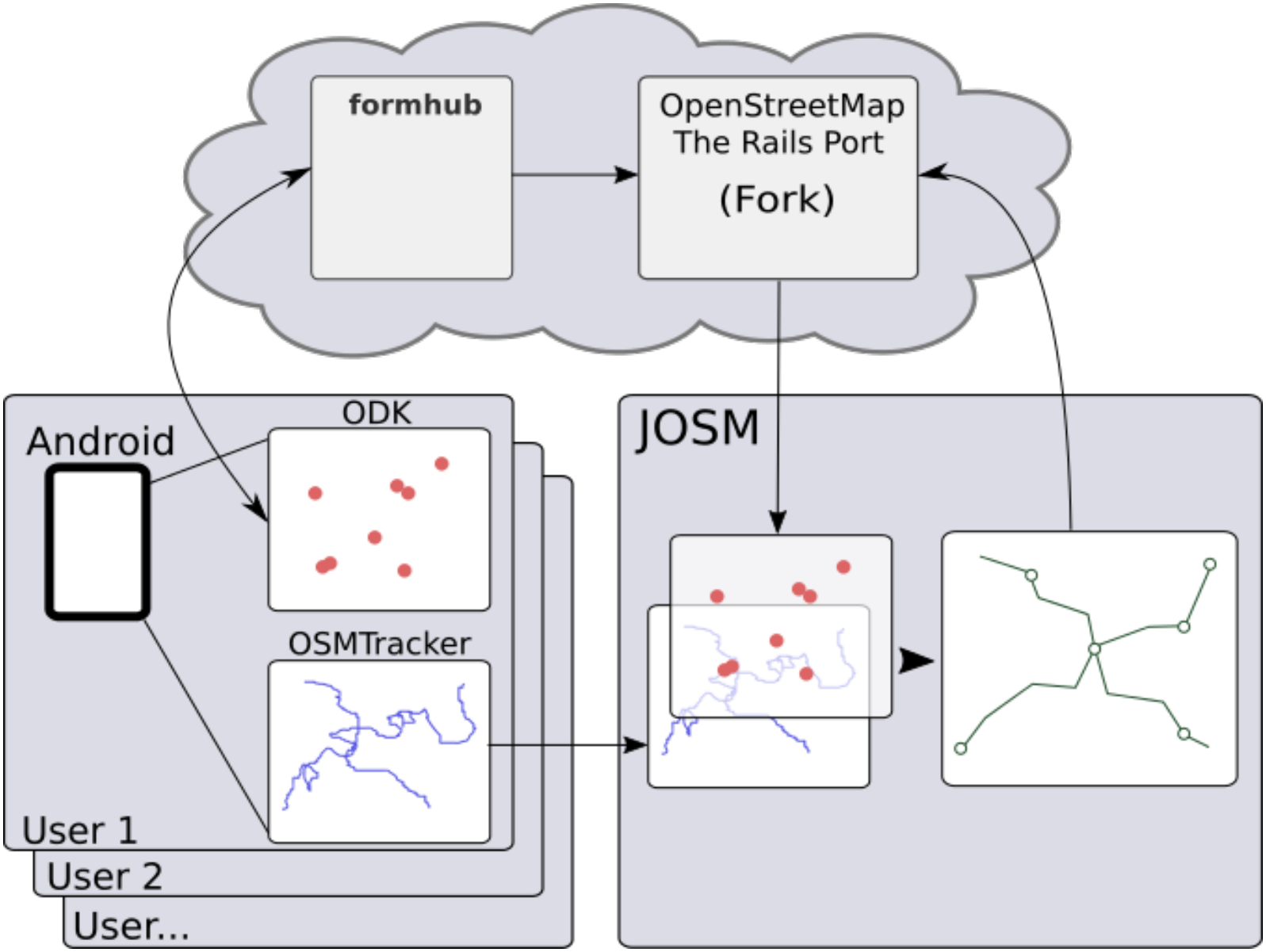
- Electrification selection per settlement (Solar, Diesel, Grid)
- Costs (settlement and regional level)

NetworkPlanner Liberia



Boyee	1,150	$134,247	$100,193	$63,646	mini-grid
Browne	711	$84,269	$70,300	$43,594	grid
Buanplay	522	$61,287	$64,905	$34,221	off-grid
Buchannan	50,245	$12,908,143	$8,925,909	$5,841,749	grid
Buchannan	2,995	$344,738	$257,233	$168,321	grid
Buchannan	2,748	$315,189	$235,712	$153,010	grid
Buchannan	2,364	$271,412	$203,466	$131,894	grid
Buchannan	3,185	$365,531	$272,321	$180,226	grid
Buchannan	4,060	$609,584	$453,489	$324,153	grid
Bueh Town	1,134	$131,329	$98,057	$62,468	mini-grid

Data Collection System

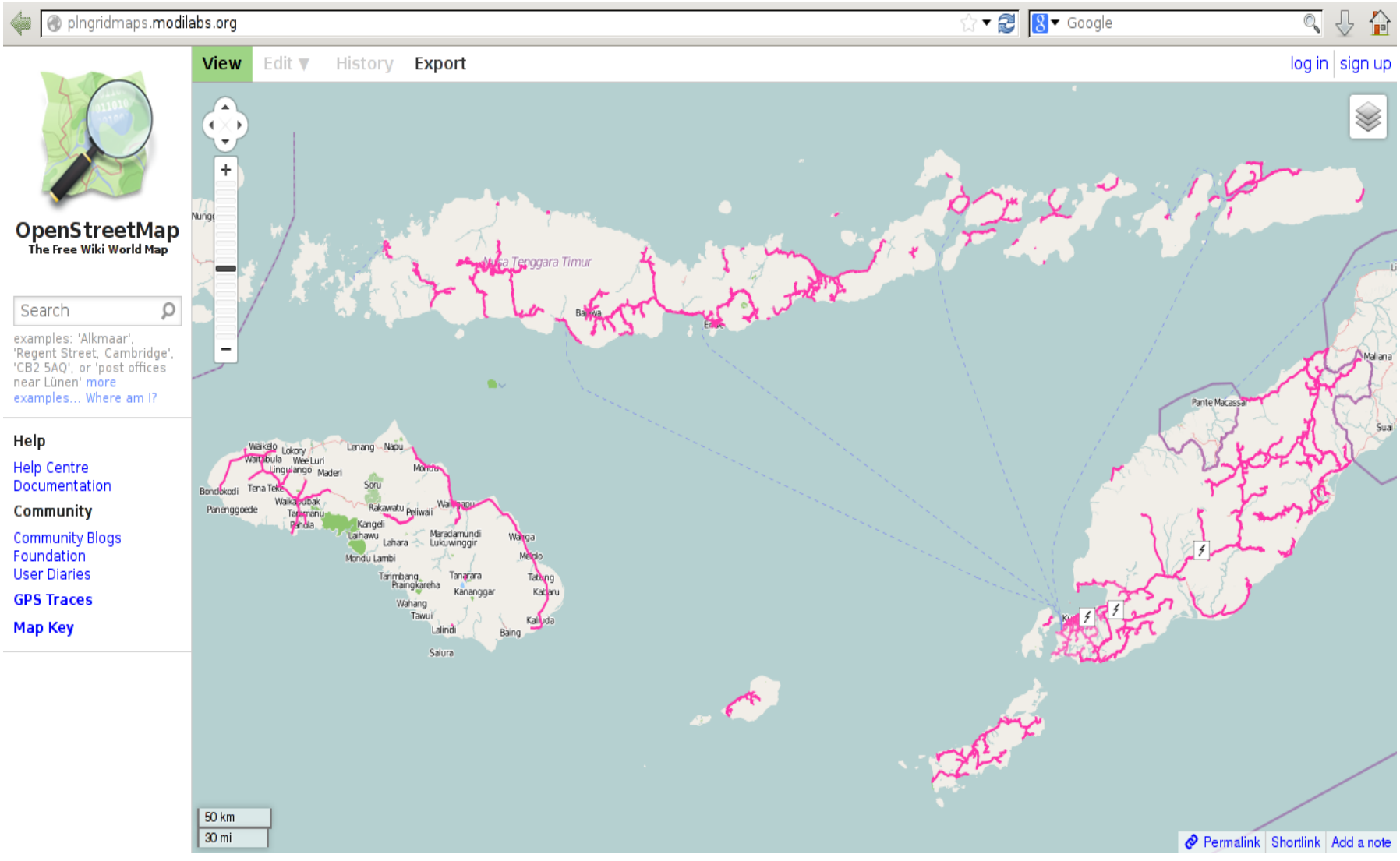


Results

Numbers:

- 700 km of new mv grid data captured
- Average of about 50 km of mv grid captured per day
- 7000 km of mv grid managed

Data Collection Map



The End

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