another use for your cell phone

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agenda...

Electronic data capture

➢ Methods of data collection

➢ Pros | Cons for EDC

Case study

➢ The problem

➢ The solution

➢ Why cell phones

➢ The results

➢ The benefits

methods of data capture

➢Paper and pen

➢Laptops

➢Notebooks/Netbooks

➢Tablets

➢Smart phones

electronic data capture…

PROS

➢ No questionnaires to print and distribute

➢ Automate routing / skip patterns

➢ Automate for single/multiple responses

➢ Control show materials / can show video|audio

➢ No data entry
    ✓ Cost
    ✓ Speed (analysis)

➢ Immediate access to data
    ✓ Field controls
    ✓ Quality checks
    ✓ Sample verification

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electronic data capture…

CONS

- Investment cost (hardware/software/insurance)
- Staff training
- Longer time to administer questionnaire
- Safety and security
- Battery life
- Wear and tear (failure of equipment)

The Case Study

Retail Selling Price | Tracker

➢ Establish the actual price being paid by smokers to purchase their brand at their usual retail outlets

➢ Establish which brands are available at these retail outlets (TCC and competitor)

➢ Establish the presence of POS materials at these retail outlets

The survey

Retail Check | Census

FREQUENCY | QUARTERLY TRACKER

METHODOLOGY | MYSTERY SHOPPER

ACTION | PURCHASE SPECIFIC CIGARETTES
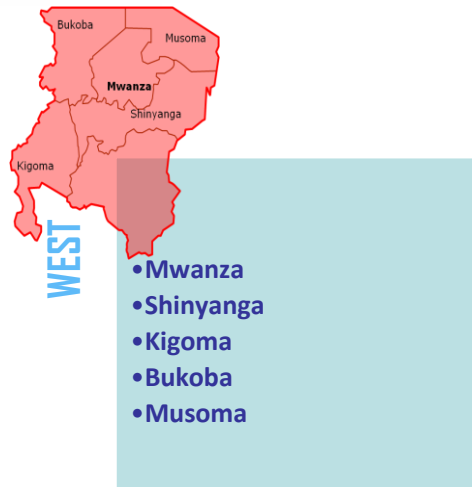
The scope

- Brands

- Locations

- Outlet type

dukas

street vendors

kiosks

hawkers

COAST
- Dar es Salaam
- Arusha
- Moshi
- Tanga
- Mtwara
- Zanzibar

WEST
- Mwanza
- Shinyanga
- Kigoma
- Bukoba
- Musoma

SOUTH
- Mbeya
- Dodoma
- Iringa
- Morogoro
- Songea

Choice of smart phones

➢ Relatively short questionnaire with known responses

➢ Mystery shopper technique so need to be in-obtrusive

➢ Need to map location (GPS reading)

➢ Need to photograph outlet

➢ Complicated quota

SMART PHONES | TABLETS | NETBOOKS

➢ Smart phones attract less attention than others

➢ Smart phones have longer battery life than others

➢ Smart phones less expensive than others

➢ Ability to relay data on an on-going basis

Software choices
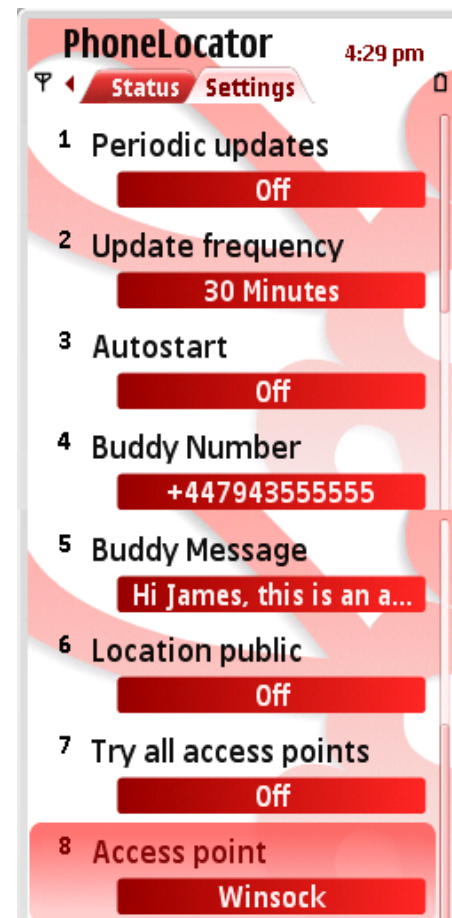
➢ Data Capture : **kobo**

➢ Telephone tracking : **phone locator**

➢ GIS | **ArcGIS**

KoBoToolbox

Application that builds surveys for digital data collection

- Allows for offline interviewing and batch uploads. Hence, ideal in an environment, where connectivity cannot be taken for granted

- Allows text or numerical input, multi-select, single-select, as well as special data types like bar-codes, images, audio, or pictures.

- Time-stamps and geo-location with GPS

- Constraints and skip logic

- Load your survey onto Android phones or tablets

Data submission (aggregated)

	deviceid	start	end	instanceID	Intro	TCCMobileID	Town	CountOutlets	CashSpent	CountCigarettes	Recalls	CashRemaini
✖	351863050232434	Sat May 25 03:01:11 UTC 2013	Sat May 25 10:15:27 UTC 2013	uuid:04b7d1ad-c4b3-46c9-9eba-d726946fe782	OK	4	10	30	15350	90	350	339250
✖	351863050232434	Sat May 25 18:55:50 UTC 2013	Sun May 26 21:56:22 UTC 2013	uuid:12b86f07-fbf9-4a7d-91a7-b99cb1c567cd	OK	4	10	57	25350	171	900	314600
✖	351863050232434	Mon May 27 21:09:38 UTC 2013	Mon May 27 21:17:33 UTC 2013	uuid:1d32f2c2-b36b-44a0-b00c-9775c8e84b1a	OK	4	10	21	8050	63	100	306450
✖	351863050232434	Mon May 27 19:48:53 UTC 2013	Mon May 27 19:56:52 UTC 2013	uuid:337234c7-3626-45cb-8d17-f417fe6b6b50	OK	4	10	49	19050	147	650	286750
✖	351863050232434	Wed May 29 21:35:25 UTC 2013	Wed May 29 21:45:16 UTC 2013	uuid:92bb8f1e-8b1e-425d-8737-5253f1cdfb25	OK	4	10	36	16950	108	100	269700

Previous   **Interviewer Reports Q2-2013**   Next
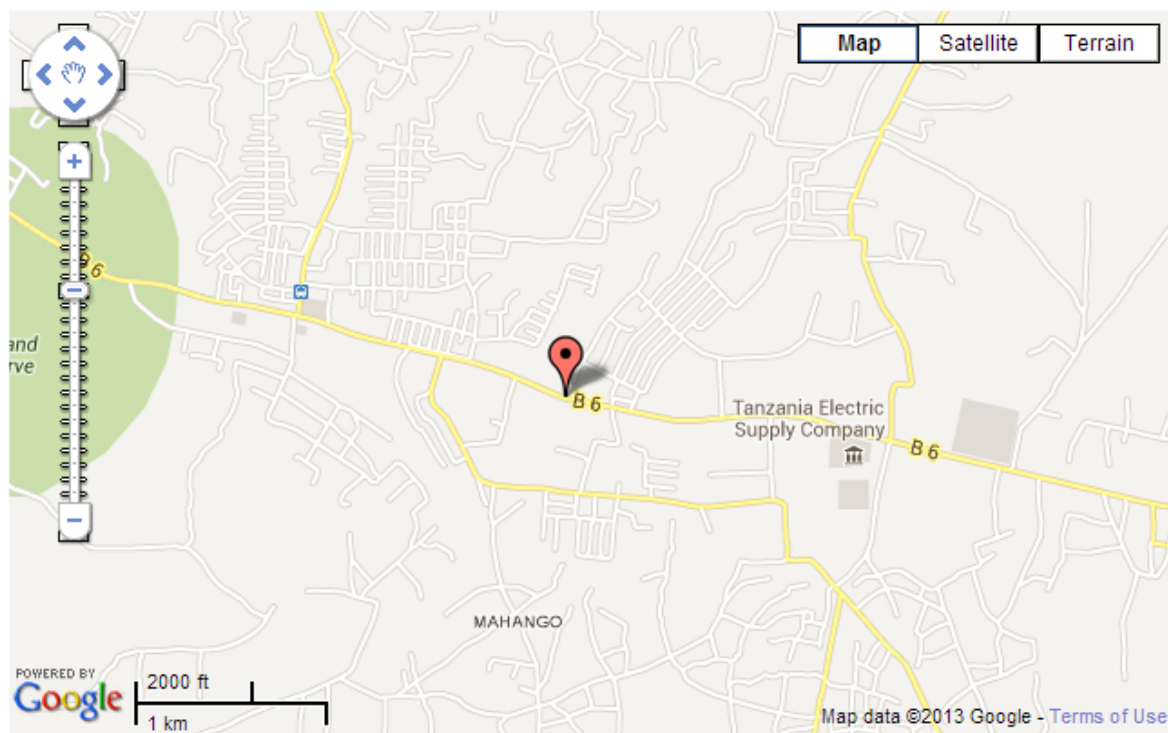
Phone Locator Pro

Android remote management and tracking

- **Track device**
- *Ring*
- **Take a picture**
- **Wipe device**
- *Display message*
- **Lock device**
- *SIM details*
- *Call log*
- *Change admin password*
- *Record audio*

FIELDWORK QUALITY & SECURITY

- **Check location of interviewer**
- **Take a picture of user**
- **Lock or wipe device**

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ArcGIS

- **ArcGIS** is a <u>geographic information system</u> (GIS) for working with maps and geographic information.
  - compiling geographic data
  - analyzing mapped information
  - managing geographic information in a database.
  - viewing spatial data
  - creating layered <u>maps</u>

ARCgis

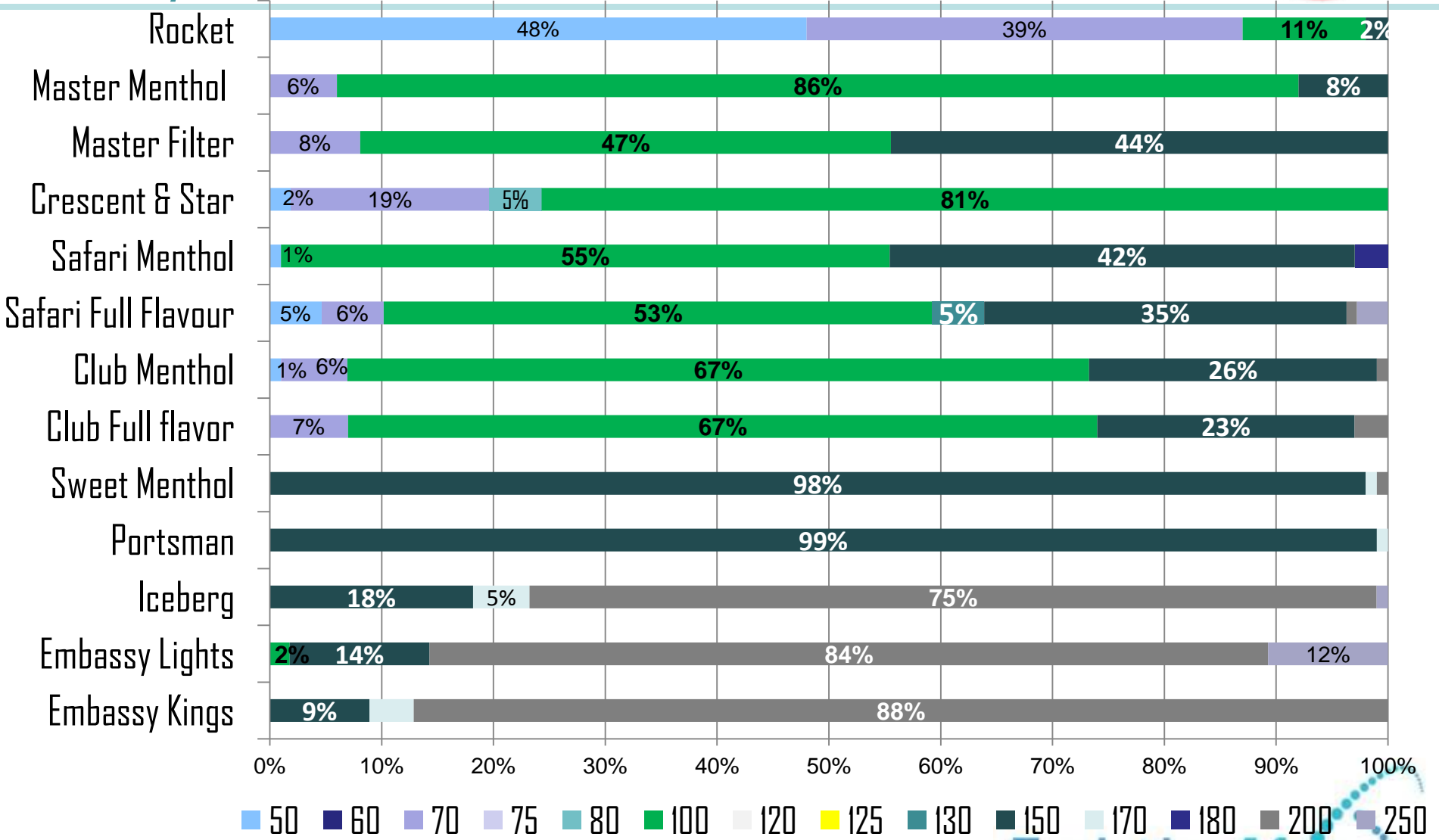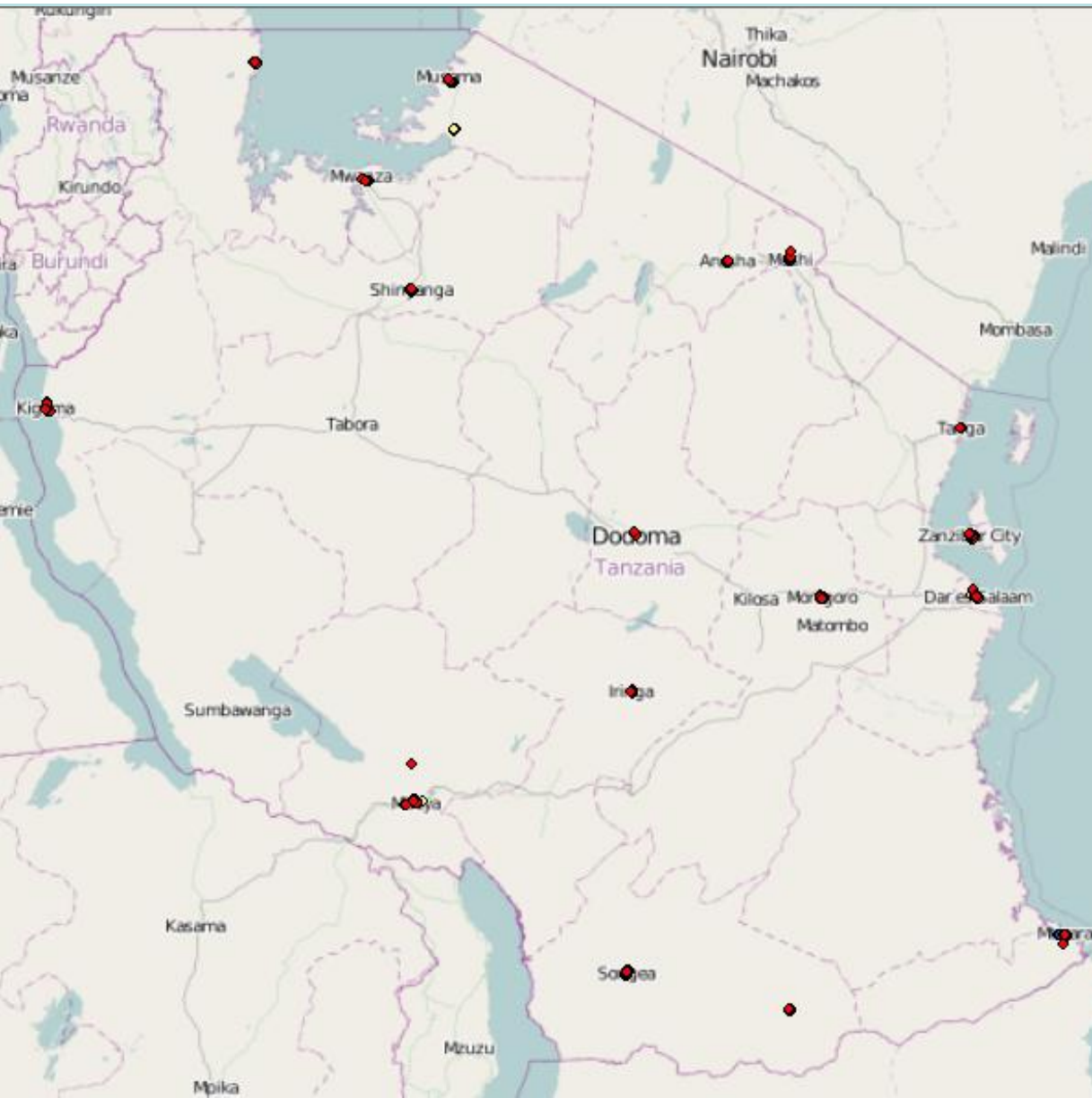Can view by country, town, area, outlet type, brand, etc.

Results

- Client able to track retail pricing and change issues
  - ➢Over two price increases
  - ➢Across 16 cities
  - ➢Across different retail outlets
  - ➢Own brands and competitors
- TCC now has a growing data base of retail outlets
  - ➢15,000+ outlets
  - ➢Brands, Price, POS, outlet type

Pricing

2013 Q1 by brand

Brand	Values
Rocket	48% / 39% / 11% / 2%
Master Menthol	6% / 86% / 8%
Master Filter	8% / 47% / 44%
Crescent & Star	2% / 19% / 5% / 81%
Safari Menthol	1% / 55% / 42%
Safari Full Flavour	5% / 6% / 53% / 5% / 35%
Club Menthol	1% / 6% / 67% / 26%
Club Full flavor	7% / 67% / 23%
Sweet Menthol	98%
Portsman	99%
Iceberg	18% / 5% / 75%
Embassy Lights	2% / 14% / 84% / 12%
Embassy Kings	9% / 88%

Legend: 50 60 70 75 80 100 120 125 130 150 170 180 200 250

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Mapping

All retail outlets are mapped against a world street map using GPS coordinates.

You can zoom in or out as far as you want:
➤ Africa
  ➤ **Tanzania**
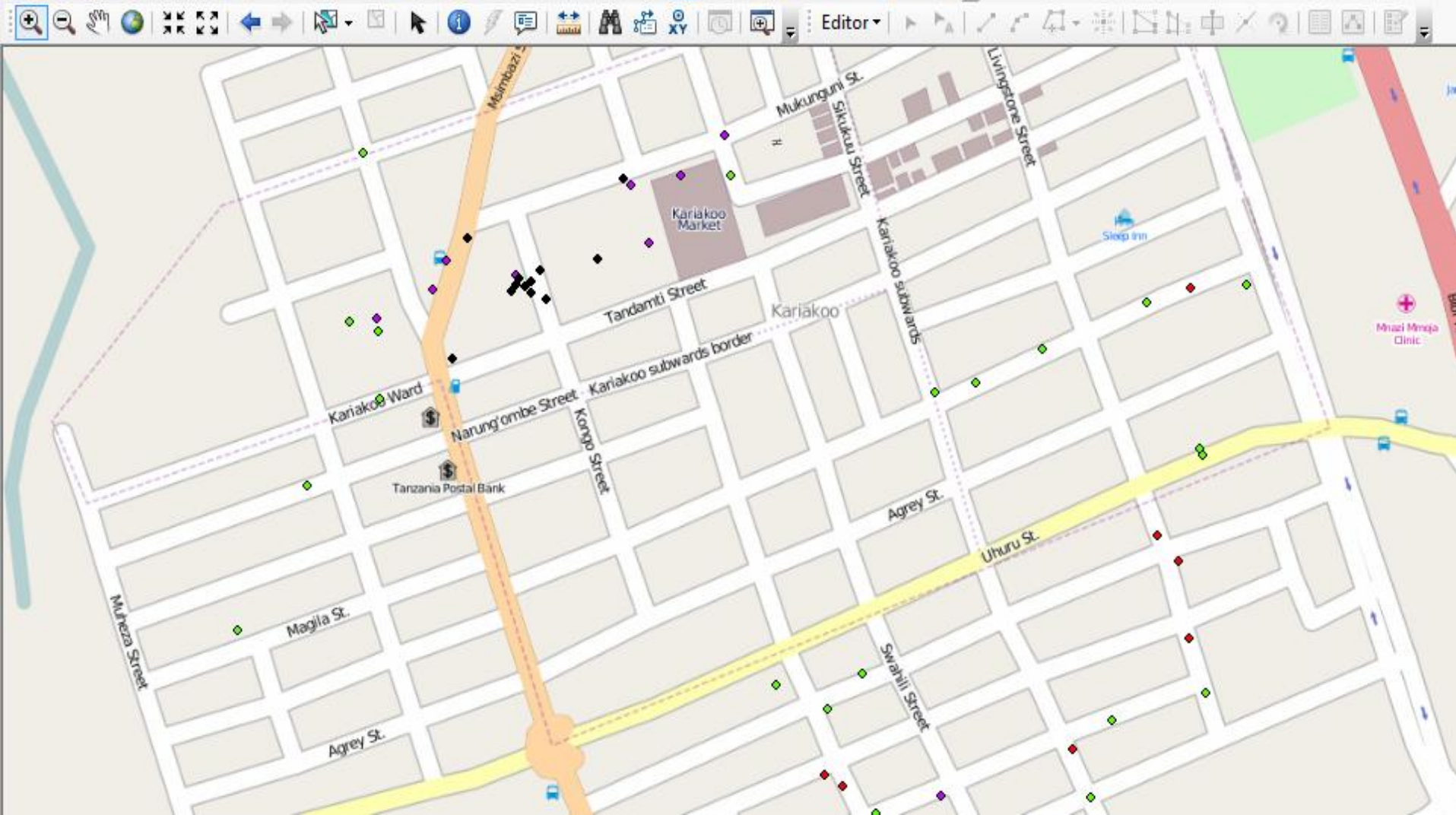   ➤ Dar es Salaam
      ➤ Kariakoo

Mapping

By zooming in, you can isolate specific areas or vendors.

Outlet Details

By clicking on outlet you can see outlet descriptors and a picture of outlet:

Electronic data collection

Practical benefits |

- Able to track whereabouts of each interviewer
- Able to check data (in the office) on same day as collected
- Able to compare data with photograph to validate some of the data
  - Outlet name/type
  - Brands displayed
  - POS materials
- Able to keep team leader informed of gaps in quota

Practical benefits | CLIENT

- Quick turn around

- Pictures verify data

- Visual mapping

- Data base of retail outlets
  - Easy to manipulate
  - Understandable to non researchers