

Statistics for Development Division

Review of recent GPS/Household listing exercise in South Tarawa

The key areas of work requiring attention, and related to the South Tarawa listing, are as follows:

1. Some GPS coordinates were written down incorrectly because the GPS units were not in the right format. They were in degrees, minutes and seconds rather than decimal degrees.
2. Some GPS IDs were not recorded and instead household names were used – these need to be fixed one by one.
3. Mixture of 2010 and 2005 EA boundaries used during the listing. Some GPS points will need to be recoded to follow correct boundaries. Some splits will also be needed.
4. Comparing listing dbase (CSPRO) and GPS tables for South Tarawa:

GPS points table:

- **8403 records.**
- 443 records with no coding, these are points used to delineate the EAs. (road corners etc. which need deleting)
- 461 points with incomplete codes.
- 710 HH code duplicates in the GPS layer. Half (373 points) of them are incomplete codes so it would not be that problematic to clean knowing their geographic position. The others 336 are points with duplicated codes.
- Estimate that removal of errors would leave about **7600 points**

Household listing table:

- 6915 records.
- 884 HH code duplicates in the HH listing
- At least 100 points with wrong coordinates entered in the lists.
- Many points in EAs 701, 702, 703, and 705 are missing.
- Initial clean leaves **6800 points** in the listing table, though there are still many duplicate codes with different spatial coordinates.

The cleaning work for outer islands hadn't been done so we are still unsure of possible errors.

Final assessment

Considering there were **6700 HH** in South Tarawa in the 2010 census (and it was an undercount) the household listing data (CSPRO) seems to have quite a bit of data missing.

Noumea, 30 March 2015
SDD GIS team