

- ❖ Get an extract from the [data access system](#)
 - Apply Filter, Datasets: DO2010pop
 - Select Tables: AAJ - AAM (3 building material tables & kitchen area)
 - On “Options” page, note number of tables (4) and files (17)
 - Download to R package directory as *DO2010pop_building.zip*
 - Unzip the downloaded file
- ❖ Working with extract data & metadata in R
 - Open R project, *webinar_examples.Rproj*
 - Step through script *ihgis_webinar_demo.R*
- ❖ Get GIS files
 - Go to [Geography & GIS page](#)
 - Download DO2010pop Municipalities (g3) & Municipal districts (g4)
- ❖ Mapping data in QGIS
 - Add Vector Layer: DO2010pop_g3.zip
 - Add Delimited Text: *DO2010_floor_g3.csv* (exported from R)
 - Join CSV to shapefile
 - Right click on shapefile
 - Properties > Joins
 - Add join
 - Join layer: DO2010_floor_g3
 - Join field: GISJOIN
 - Target field: GISJOIN
 - Custom field name prefix: data_
 - Change symbology
 - Graduated
 - Value: data_prop_soil
 - Color ramp: YlOrBr
 - Mode: Natural breaks (Jenks)
 - Switch to data_prop_detached
 - Map g4 units
 - Add Vector Layer: DO2010pop_g4.zip
 - Add Delimited Text: DO2010popAAM_g4.csv (directly from extract)
 - Join data file to shapefile as above
 - View variables in codebook
 - Change symbology
 - Expression: AAM003 / AAM001 (proportion with cooking area outside dwelling)
 - Color ramp: Greens
 - Mode: Jenks