**Documentation on updated Uzbekistan and Albania mapping work**

During Florencia’s leave, Andrew and I mainly worked on Uzbekistan mapping, Albania descriptive data analysis and Albania mapping. This documentation includes brief description of important updated files/ folders. Yellow highlights mark the folders where the updates took place.

**Uzbekistan**

1 Code:

Uzbekistan\_short\_code\_GDP.ipynb: Python notebook processing population, GDP, night, generating GDP per capita, and generating certain percentiles for mapping

2 Raw Data:

The GDP and population datasets we end up using are:

* GDP: GDP\_PPP\_30arcsec\_v3.nc

This data is at 30 arc-second (1km by 1km) resolution

* Population: uzb\_ppp\_2020\_100m\_constrained.tif

This data is at 3 arc-second (100m by 100m) resolution

3 Output data:

Uz\_final\_2022\_0622\_SY.csv: output dataset containing longitude, latitude, population, GDP, GDP per capita, and nightlight.

This data is at 3 arc-second (100m by 100m resolution)

Uz\_mapping\_Shining\_June:

* Uz\_map\_AM.qgz: Uzbekistan map QGIS file (finalized by Andrew)
* “Korzinka store locations” folder: Updated Korzinka store locations (there are 4 csv representing 4 types of Korzinka stores)

We missed some store locations in the last version, so we made updates according to Korzinka official websites while leaving the competitors unchanged.

* “Updated\_map\_images” folder: Output mapping layouts
* “mobile\_data” folder: April mobile data provided by Kochava
* “Uzbekistan-Korzinka maps updated\_SY\_0629.pptx”: updated Uz mapping slides

**Albania**

For Albania, our work involves both food retailers and electronics retailers. The descriptive data analysis for Albania was done at 30 arc-sec (1km by 1km) resolution, and the mapping work was done at both 30 arc-sec (1km by 1km) and 3 arc-sec (100m by 100m) resolution.

1 Code:

* Albania\_short\_code\_GDP\_100m.ipynb: Python notebook processing population, GDP, night, generating GDP per capita, and generating certain percentiles for mapping (coordinate reference at 100m by 100m resolution)
* Albania\_short\_code\_GDP\_1km.ipynb: Python notebook processing population, GDP, night, generating GDP per capita, and generating certain percentiles for mapping (coordinate reference at 1km by 1km resolution)
* Albania\_stats\_Shining\_June.ipynb: Python notebook to do spatial aggregation – generating 3km by 3km square and 5km by 5km square on GDP and population
* Albania\_food\_retail\_EDA\_SYedited.ipynb: food retailers EDA
* Albania\_electronics\_EDA\_SYedited.ipynb: electronics retailers EDA

2 Raw Data:

The GDP and population datasets we end up using are:

* GDP: GDP\_PPP\_30arcsec\_v3.nc

This data is at 30 arc-second (1km by 1km) resolution

* Population:

We switched population to 2015 to match with GDP (this was not done to Uzbekistan due to the time constraint)

* alb\_ppp\_2015\_100m\_constrained.tif

This data is at 3 arc-second (100m by 100m) resolution

* alb\_ppp\_2015\_1km\_constrained.tif

This data is at 30 arc-second (1km by 1km) resolution

3 Output Data:

* Albania\_final\_data\_2022\_0706\_100m.csv: output dataset containing longitude, latitude, population, GDP, GDP per capita, and nightlight. This data is at 3 arc-second (100m by 100m resolution).
* Albania\_final\_data\_2022\_0706\_1km.csv: output dataset containing longitude, latitude, population, GDP, GDP per capita, and nightlight. This data is at 30 arc-second (1km by 1km resolution).
* EDA\_GDP\_2022\_0704.csv: GDP on 1km-by-1km grid, 3km-by-3km grid, and 5km-by-5km grid
* EDA\_pop\_2022\_0704.csv: population on 1km-by-1km grid, 3km-by-3km grid, and 5km-by-5km grid
* market\_df\_v0\_2022\_0705.csv: EDA output
* electronics\_df\_v0\_2022\_0706.csv: EDA output

4 Albania mapping:

* alb\_map\_100m.qgz: QGIS map at 100m by 100m resolution
* alb\_map\_1km.qgz: QGIS map at 1km by 1km resolution
* “food\_stores” folder: food retailer locations
* “electronics\_stores” folder: electronics retailer locations