10 ITWCVP

GIS Training

Day 2

Working with Raster Data/Common Geoprocessing

1. OBJECTIVE : Perform Intersections and Spatial Joins on data
2. TASKS:
	1. Identify which provinces are impacted by the forecast
		1. Load *ne\_10m\_admin\_1\_states\_provinces\_shp.shp*
		2. Load po int data (gts\_20140714.csv)
		3. Load Forecast shapefile from previous lab
		4. Perform a join by location
		5. Identify which points are impacted by which type of phenomenal
		6. Perform an intersection of Forecast and political boundaries
3. OBJECTIVE: Create contours (vector) from raster data
4. TASKS:
	1. Load in interpolation data over Nigeria from yesterday’s lab
	2. Load in and clip interpolated data over Nigeria
	3. Stylize clipped raster data
	4. Create contour for clipped raster data – menu Raster >> Extraction >> Contour with interval at 10 and *Attribute* *name* set to PRECIP
	5. Show label for contour
5. OBJECTIVE: Georeference an image
6. TASKS:
	1. Load in *ne\_admin\_1\_states\_provinces\_shp* data
	2. Load in *gfs.t00z.totp.week1.samerica.gif* raster data. What do you notice?
	3. Remove *gfs.t00z.totp.week1.samerica.gif* from the *Layers panel*
	4. Activate or install *Georeferencer* GDAL plugin
	5. Go to *Raster* >> *Georeferencer* >> *Georeferencer*, open *gfs.t00z.totp.week1.samerica.gif*
	6. Add few *Ground* *Control* *Points*, set proper *Transformation* *Settings*, and then *Start* *Georeferencing*. What do you notice now?
7. OBJECTIVE 2: Perform analysis on raster data
8. TASK:
	1. Load in Nigeria and *ne\_admin\_1\_states\_provinces\_shp* shapefiles. Perform intersection
	2. Load clipped raster data over Nigeria
	3. Use *Zonal* *Statistics* tool to determine a relevant quantity for each geographic area
	4. Stylize *intersection* vector data to show the mean precipitation over each zone