The following maps are topographic maps, which are raster databased maps created using Digital Elevation Model (DEM) data. Figure 1 is a slope map of the River Shannon catchment, which displays how steep or flat the topographies are. Figure 2 shows the shadiness of the topographies. Both maps contain only physical aspects of geographies.

Figure 1: Geoprocessing Slope

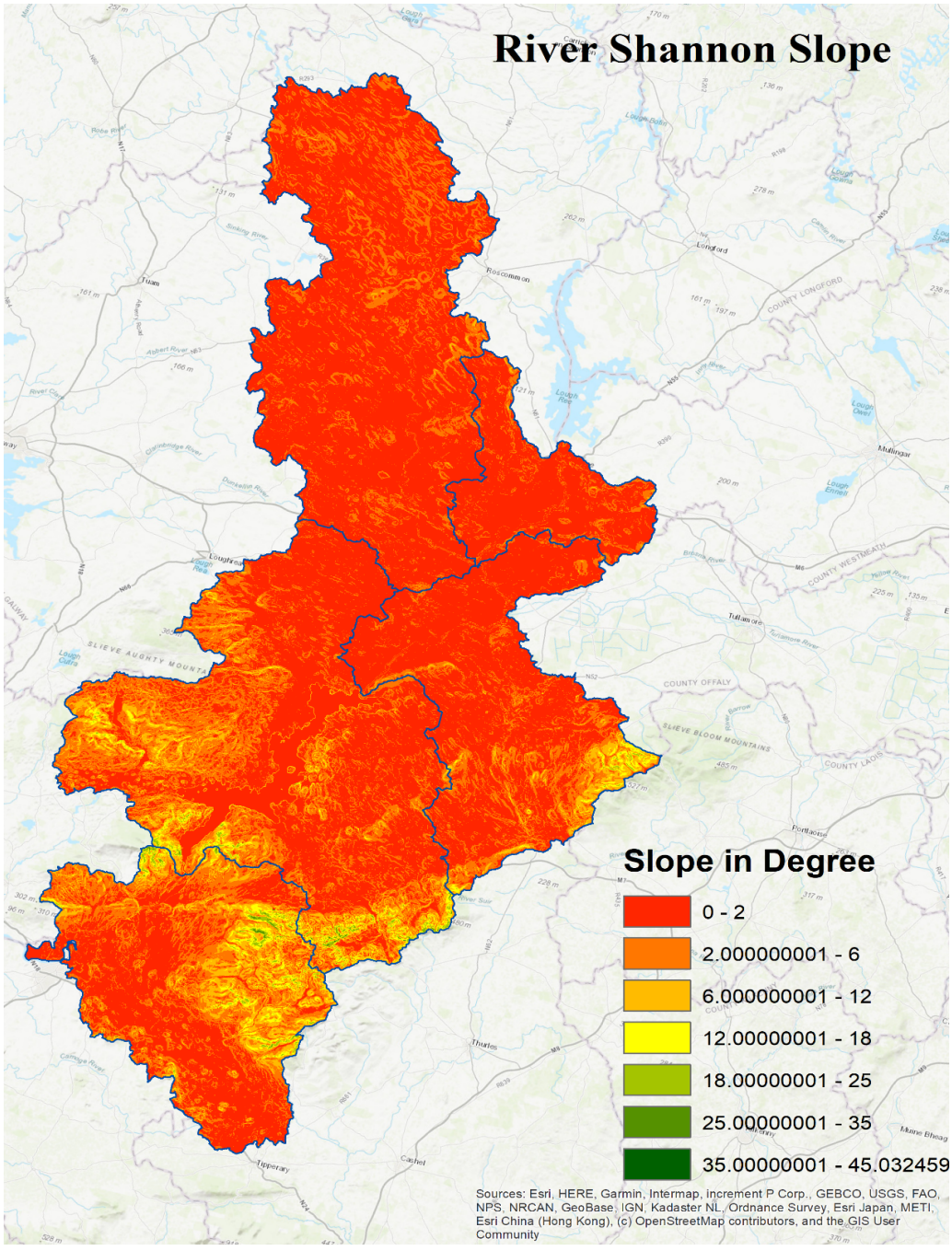
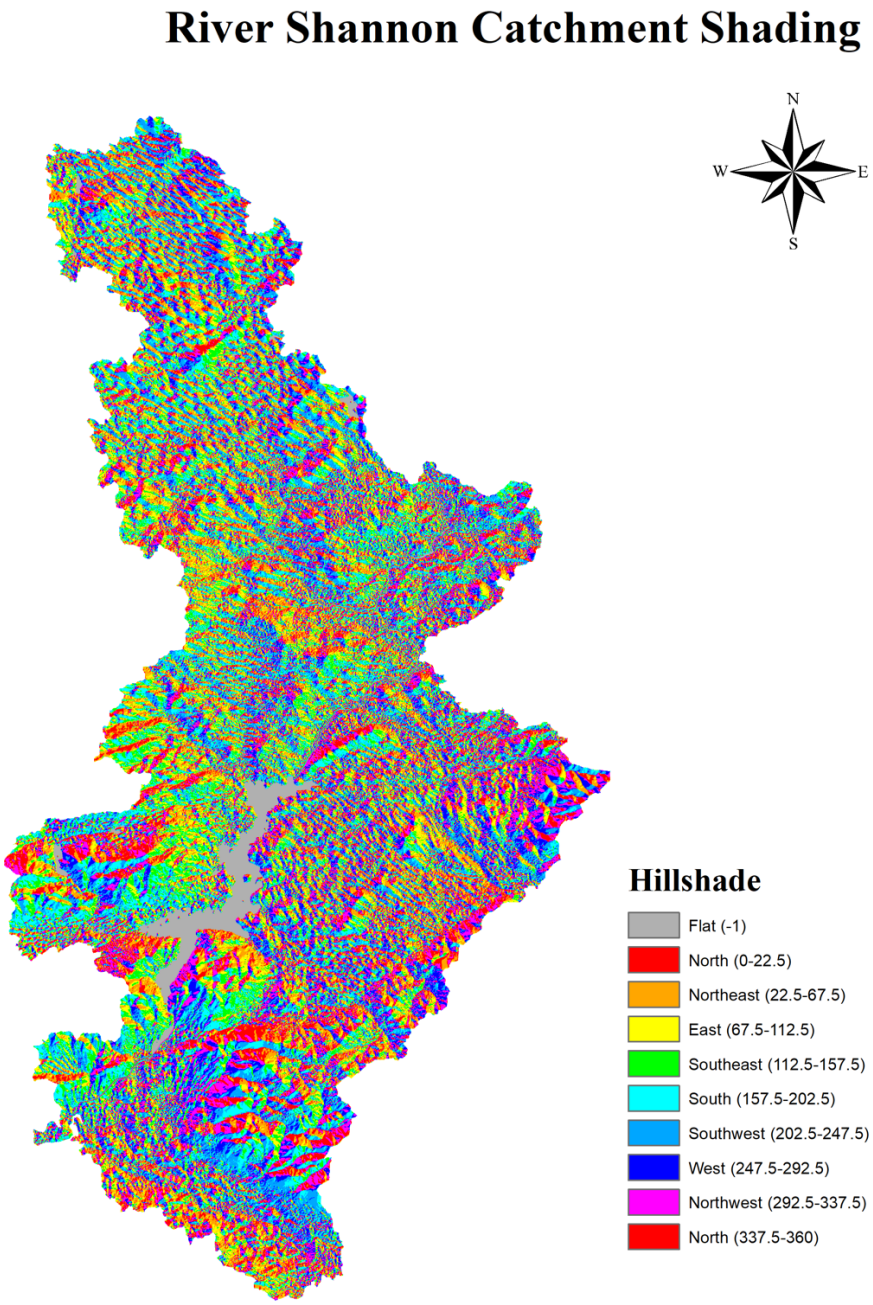


Figure 1 is a digital elevation model topographic slope map of the River Shannon catchment areas. It captures most of the middle and lower sections of the River Shannon catchment areas.

The topographies of the areas are classified into seven classes by their steepness. The purpose of this slope map is to identify flood-prone areas along the river catchment. The red and orange colors represent low slopes where the lands are flat. The yellow and green are relatively high slopes. The low-lying flatlands where rainwater gets accumulated are so exposed to flooding. The map shows middle section of the catchment areas is more prone to flood as these areas lay low and flat with a significant number of little drumlins.

Figure 2: Geoprocessing Aspect



This 3-dimensional map shows hills' shad of topographies of the River Shannon catchment areas. The hill shade is determined by sunlight, the position of the sun, and the elevations of

the landscapes (shown in the classified legend). This visualization provides a clearer picture of topography, that terrains can be effectively detected for flooding, landslides, earthquakes. In the case of the River Shannon catchments, it would be flooding.

Datasets

- Ireland Digital Elevation Model (Brightspace)
- River Shannon Catchment Boundary (Brightspace)
  https://land.copernicus.eu/pan-european