

Abstract

There are Complex Humanitarian Emergencies (CHE) happening worldwide. Currently, 68.5 million displaced persons exist around the world resulting from these CHEs. This project seeks to develop an Arcpy script for predicting movements within these crises to help government and non-government agencies manage resources. This project is intended to predict large-scale flows of people to allow agencies to prepare for an influx of displaced persons and organize shelters, food, clothing, medical personnel, and other necessities. ArcPy within ArcGIS Pro will give non-trained users an easy format to view spatially relevant processes and information about the CHE that they may be unable to share with the public. Additionally, this project looks at theoretical models of human movement that are most relevant to the circumstances of the CHE and should help speed communication between GIS and non-GIS professionals. This project uses the Syrian refugee crisis as a test case because of the large-scale movement and long duration involved.