

Use of GIS in crime analysis and mapping

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Geography of crime is a discipline of human geography, which explains with reference to space the study of criminal wrongdoing, the incidence of crimes and characteristic of victims. Throughout the history of geography, a number of different approaches try to explain the ontogeny of the world's societies and cultures. One most prominent approach is environmental determinism which dates back to antiquity.

the crime with special reference to its spatial and temporal distribution. It also tries to analyze and estimates the impact of weather on the prevalence of criminal activity in Mardan City. Studying the crimes with reference to its spatial and temporal

distribution is important because information about the occurrence of crime is one of the most crucial tools in combating crime. It allows understanding how crimes are distributed through space, and hence can help in combating them. The Geographical Information System is an important tool for dealing with spatial and temporal analysis and thus fighting crime. The advent of desktop computers has significantly increased the role of computer mapping.

The availability of user-friendly GIS applications has further increased the use of GIS in crime mapping. For the present study the data was collected about homicide and aggressive assaults from all the three police sta-

tions covering Mardan City. The collected data was analyzed under different scenarios. The temporal based analysis of data reveals that almost 50% crimes reported in 2009, took place from May-September (summer) compared to 32% in winter (October to February). The spatial analysis of data reveals 05 hotspots. Sikindary area was identified as the most crucial hotspot where within a 05 km radius, 11 crimes were committed in 2009 followed by Kalpani Bridge area from where a total of 10 crimes of aggressive nature were reported. Similarly police station wise the City Police Station accounts for 47% of the aggressive crimes committed in 2009.