

Building better cities

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Quetta is the capital city of Balochistan, Pakistan. It is reported that Quetta is home for approximately 3 million people. The city is set to be accommodating 30 times more people than its original capacity. Balochistan itself is Pakistan's largest province, covering 43% of the country's geographical area. The urban challenges are regarded as common for developing countries and cities because the urban network of the cities, villages and towns are likely to include almost all of the aspects of the environment which affects economy, social and societal interactions. Urbanization is found to be an integral part of country's economic growth. Recently, the process of urbanization is seen as an integral part of economic growth and social development.

The lack of effective planning and implementation in Quetta has significantly increased the poor condition of the housing standard. The lack of plan implementation in the city of Quetta has advanced congestion and traffic problems specifically within urban area. On the basis of prime and agricultural land, city is found to be rapidly growing and expanding specifically.

The expansion also relates to the groundwater recharge zones in the same way. It was estimated that up to half of population is housed and

linked to the Kachi Abadi's. However, the new housing schemes in the city were considered to be further developed as they are related with primary agricultural land like Defence Housing Authority. Another

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major issue in Baluchistan is found to be affected by specific natural and human made hazards. Such threats include; earthquakes, landslides, floods, sea tides and drought. Such disasters are likely to have significant consequences on city's sustainable

development.

GIS is being used as a platform to help planners reach their goals of creating livable communities and improving the overall quality of life while protecting the environment and promoting economic development. GIS tools can provide the necessary planning platform for visualization, modeling, analysis, and collaboration. Typical GIS applications in urban planning and management are divided into three businesses:

- Urban planning decision analysis.
- Database management.
- Planning.

The database management gives data for urban planned road, urban park and urban parks. GIS can be systematizing their management based on maps. GIS technology is used to analyze the urban growth and its direction of expansion and to find suitable sites for further urban development. GIS application used in urban planning as an analytical and modeling tool.

This comprises addressing problems related to data base structures, simple and complex analytical models alike. GIS is also useful in monitoring of an area or conducting a probability study of a location for a specific purpose. Possible study of even smaller structures like schools and hospitals is essential and can be easily conducted with the help of GIS.