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## 'Space Expertise Can Help Overcome Water Crises In Balochistan'

**By Maham Latif**

**T**he optimal use of GIS (Geographical Information System) can help in cur-tailing the fast-growing water crises around the globe, especially in countries like Pakistan that has ranked 26th among most water-stressed countries.

"Not only GIS provides cost-efficient methods for water management but also accurately forecasts the long term tendencies of lessening of resources". The most serious crises hit Pakistan's area Balochistan where water shortage is Cataclysmic. The province is situated in an arid zone where due to low rainfall people are constrained to either migrate or to rely on any available source of water whether unsafe.

In the aftermath of the catastrophic 1935 earthquake and during the British rule, Quetta city was designed for a limited population. However, according to Dr.Kaleemullah Khan, the mayor of Quetta, the population of this mountain-ringed city has jumped to around three million. This escalation has given rise to a number of problems including water scarcity.

Because of poor management of water resource, people are drinking unhealthy or unsafe water. In today's twenty-first century, in many parts of the province women and children walk ten to eleven kilometers on average carrying buckets on their heads in search for water. The province has failed to increase its water storage capacity through the creation of enough dams. As a result, when it rains, people store water in open areas which are accessible to both humans and animals alike. Highlighting their plight, the people of the area mentioned that the number of diseases prevalent in the area has increased due to unsafe drinking water. Water woes have contributed to food insecurity and diminished agricultural productivity because the irrigated farmlands are not receiving enough water. At the same time, it also affects the livestock since nearly 90% of the water in Balochistan is used to grow food. For instance, take the example of apples. More than 80% of Pakistan's total apple production comes from Balochistan. However, given the water shortage, the production of varieties of apples declined.

The experts emphasised that the data obtained from the space technology could significantly help in building water reservoirs and protecting the environment by taking necessary measures for water management.

Elaborating on the technical side, the experts also discussed ways to expand the use of space technology in form of satellite-based remotely sensed data, geographic information system (GIS) and subsequent information products for better management of water resources.

"The space technology is best known for its synoptic and wider geographical coverage and system efficiency," said Suparco Chairman Qaiser Anees Khurram.

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