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## **Evaluation of Land use Changes Due To water sluicing of Taleghan dam By Means of Remote Sensing Technology**

Iran, with the area of 1648195 Square kilometers, is one of the vastest Plateaus in Asia. It is surrounded by Persian Gulf and Oman Sea in the south, Caspian Sea in the north, Zagros mountain range in the west, and Pamir Mountain in the east. The average annual rain fall in Iran is about 250 millimeters, which is one third of that of the world.

Climate diversity, topographical and geographical condition, imbalance and disproportion distribution of the surface flow according to requirements and climate diversity are hydrological properties of Iran. Hence to meet the requirements, construction of dams and drilling water wells are inevitable affairs which have always been taken into consideration by Iranians.

To supply a portion of drinking water for the capital citizens, along with the Qazvin plateau, Taleghan dam was constructed on Shahroud River. Construction process commenced in January 2002 and terminated in January 2006.

Taleghan dam is an earth dam with a clay core, which is located in Taleghan valley in the south of Alborz mountain range, 120 kilometers in the northwest of Tehran. Water sluicing of the above mentioned dam has made the vast area immerse, consequently many residents have encountered profound drawbacks.

In this study, land use changes affected sluicing water behind Taleghan dam has been investigated by Remote Sensing Technology. Due to the reasonable cost, along with data diversity and ability in Spatial and Spectral resolution, fixed repetition, availability, and expanded view of a region, the satellite images have been used a lot.

To provide the potential land maps, classification of images is a common and powerful information extraction method. There are several methods for these purposes which depend on geographical conditions of the region. Therefore, users should choose the best and most appropriate method out.

In this study ETM and IRS (pan) satellite images are used and Also Digital Elevation Model (DEM) and Topographic maps (1:50000) and Ground Control Points (GCP) are used as Subsidiary data.