

Use of remote sensing techniques for mitigation and relief action of the main disaster concerns in Syria

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The main disaster concern in Syria is the Earthquakes, since that Northwest of Syria is part of one of the very active deformation belt on the Earth today. This area and the western part of Syria are located along the great rift (Afro-Arabian rift System) . Those areas are tectonically active and cause time to time a lot of seismically events. This faulting zone system represent a unique structural feature in the Mediterranean Region.

The system formed, initially, as a result of the break up of the Arabian plate from the African plate since the mid-Cenozoic.

The other disaster concern in Syria is Landslides whom caused significant damaging in Syria during the last decades, especially in the Northwestern and South-western regions. Landslide disasters killed some people and destroyed many mud and cement houses (coastal mountains) and cut off some roads, few years ago.

It is known that many of the earthquakes and landslides that ever happened on our planet are located in active faults zones. So it is of most important to obtain detailed information on regional tectonic structures. The main approach of active faults survey at present is to use geological and geophysical methods, such as *in-situ* measuring, drilling and analysis of gravity and magnetic fields. However, because of the magnitude of the work, there are still many uncertainties that we cannot figure out by traditional approaches. Remote sensing has been brought forward for many years, and has applications in many hazard reduction domains, such as Earthquakes and landslides monitoring . Remote sensing technique has been thought as a good complementary tool to map active faults quickly at a large scale, because it can view a wide range of area at a time. Meanwhile, remote sensing images cover the spectrum from visible to microwave wavelengths of electromagnetic wave, which provides much more useful information.

Moderate and high resolution satellite images are the best choice, because in low resolution images, the faults features may not be visible in most cases.