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Since there is no nay appropriate method to asses the geo-environmental hazards due to gem mining, many conflicts were observed between the residents in neighborhood of gem mines and the gem mining community. This was evident from the incidents occurred at Ratnapura, Balangoda and Pelmaduulla areas.

Precious studies carried out NBRO revealed that the safe limits can differ from site to site depending on the locality, topography, morphology, formation and the strength of the material of the sub surface layers. It was found to be effecting the Gem industry in Sri Lanka, as the authorities did not have a methodology to assess the environmental damage due to such activities beforehand.

The Gem and Jewellery Authority of Sri Lanka had discussions with the NBRO and requested assistance for identification of optimum limits that can be allocated for the issue of permits for gem mining without creating hazardous situations due to activities associated with same.

Field surveys and studies have indicated three major causes for potential geoenvironmental hazards arising from gem mining.

There are :-

Impact on water supply wells,

Land settlement due to Ground-Water withdrawals and Subsidence due to Ground-water withdrawal (Direct Impact =Possible damages to houses),

Ground subsidence due to improperly abundant mines (Direct Impact = Possible damage to houses).

For estimating the degree of hazards, existing Geotechnical equations were modified with reasonable assumptions through experience gained from field experience. This method was adopted in number of cases at Ratnapura area and reasonable limits, free of hazards were found using numerical methods. These limits were considered, indicative values for issuing of permits but has to be verified during mining operations. When more and more information will be available on the static ground water level, soil characteristics, soil profile etc., after a reasonable monitoring period, modifications to the relevant equations will have to be done to establish more accurate limits by the authorities.