

Emergency Investigation and Assessment 2022 Pakistan Flood

Disaster Watch

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Distinctive Indicator of the 2022 Pakistan floods – Inland Lake

On 28 August 2022, CNN reported on forming an 'inland lake' of approximately 100 km in width in the lower Indus River due to flooding, based on 250 m resolution MODIS imagery, which inundated a large amount of agricultural land and houses and caused severe damage. Based on Sentinel-2 remote sensing image on 30 August 2022 and SRTM30 DEM, the basic characteristics of the 'inland lake' formed by this flooding event were analyzed. The huge 'inland lake' was formed at the border between Sindh and Balochistan, as shown in blue in **Fig 1**. The surface area of this lake is 4727.26 km². Its maximum length is 325 km, its maximum width is 21 km. This current flood has transformed what was once farmland into a huge 'inland lake' and is one of the key indicators of the magnitude of the recent record-breaking floods in Pakistan. Over 17,474 buildings

 $(0.94~{\rm km}^2)$ and 1246 km roads have been damaged by this newly formed 'inland lake' .

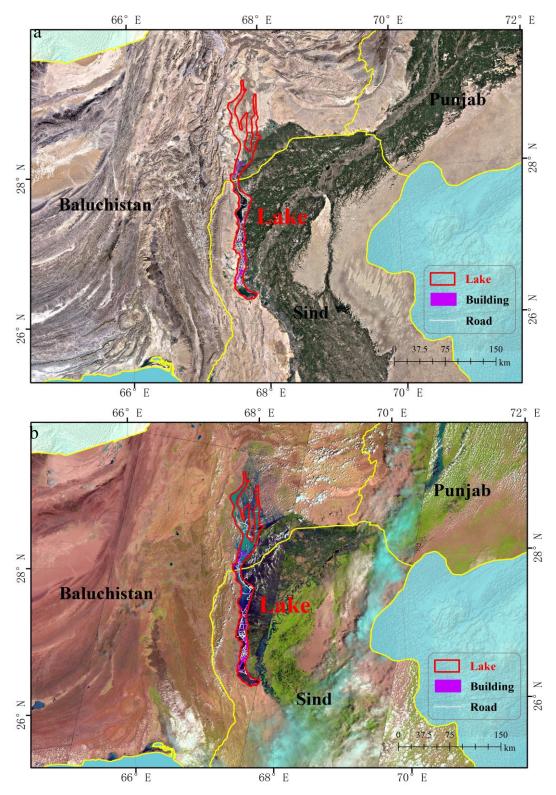


Figure 1 a. Before the flood; b. New 'inland lake'

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