

The survivor's accounts of 1945 tsunami confirms that Makran Subduction Zone is a potential hazard for Northwestern Indian Ocean countries

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Abstract

A magnitude 8.1 earthquake on 28th November, 1945 occurred and produced a devastating tsunami on Makran and Sindh coast. The tsunami originated along the Makran Subduction Zone, an active boundary between converging tectonic plates that descends northward beneath Iran and Pakistan. The shaking, which caused buildings to collapse in what is now Pakistan, was followed by a tsunami that flooded coastal region of Makran, Sindh and reached as far west as Muscat, Oman, Iran and as far east as Mumbai (then Bombay), India.

In the past few years, spoken histories and archives documentation of the 1945 earthquake and tsunami have been collected for the first time in Pakistan, Iran, India and Oman. Most tsunami survivors were interviewed on the Pakistani coast. The survivors' accounts have much in common in describing the time of the earthquake, retreat of the sea, numbers of tsunami waves, time intervals between waves, and local inundation limits. The spoken histories revealed that Balochistan coast was badly affected and losses in Indus delta have been underestimated. Most of the affected villages in the Indus delta no longer exist.

Makran subduction Zone is a nearby source of tsunami is accounted for most fatalities in sparsely populated Makran and Sindh coast. What has been established from the 1945 tsunami, falls short of what is needed today for ground-truthing, inundation models, estimating risk to enlarged populations, and anchoring awareness campaigns.