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How to avoid mass deaths in the emergency avoidance process of mountain disasters: Lessons from the mountainous areas of western China

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The impact of mountain disasters on human society continues to increase under the background of climate change and social economy development, especially for the developing countries or regions with relatively backward social and economic development level and fragile natural ecological environment. China is one of the countries suffered most serious mountain disasters in the world. In particular, after Wenchuan earthquake in 2008, the frequency and scale of secondary mountain disasters caused by heavy rainfall and the earthquake increased significantly, which seriously threatens the life and property safety and post-disaster reconstruction in earthquake-hit areas. Therefore, some events with mass deaths and injuries occurred. For example, on July 10, 2013, the massive landslide in Sanxi Village, Zhongxing Town, Dujiangyan City, Sichuan Province caused 166 deaths or missing. On June 24, 2017, the high mountain collapse in Xinmu Village, Dixi Town, Maoxian County, Sichuan Province buried 62 farm houses, caused 10 deaths, 73 missing and 3 injures. What's more, mountain disasters also caused mass deaths and injuries in some areas less affected by Wenchuan earthquake. On June 28, 2012, the large debris flow occurred in Aizi Gully, Ningnan County, Sichuan Province, China was the annually most serious debris flow in construction site in China, resulting in 40 deaths or missing. On June 28, 2020, debris flow caused 17 deaths or missing in Caogu Township, Mianning County, Liangshan Prefecture, China. Lots of disaster cases show that disaster awareness and emergency capacity are the base of scientific emergency avoidance—which is one of the important ways to reduce the casualties of mountain disasters in high-risk areas. Through the analysis of disaster cases, the experience and lessons of mountain disasters in western China were summarized and the measures to avoid mass deaths and injuries in the process of mountain disaster emergency avoidance were explored. So this research aims to provide a scientific basis for the reduction of casualties in mountain disasters in similar areas.