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Floods, Fevers, and Failed Systems: Building Climate-Resilient Public Health in Pakistan

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Pakistan is once again facing a familiar crisis now a days. Since the beginning of the monsoon season in Pakistan on 26 June, 47 people have been reported killed and 123 injured in different provinces due to floods or flash floods. Flash floods have continued along major rivers in Punjab. This comes at a time when the country is still recovering from the 2025 floods that claimed the lives and livelihoods of more than 1037 people and displaced people to the tune of approximately 2.9 million during the period of peak flood [1, 2]. It is no longer an exception, but rather a trend, and in 2022, 2023, 2025 and 2026 significant health emergency conditions were reported due to the flooding events [3].

In each cycle the same direction is taken. Sanitation facilities are washed away and drinking water sources are contaminated by flood water, families are displaced to relief areas, and stagnant water breeds disease vectors [1, 4]. In 2025, floods occurred in Punjab and resulted in more than 3500 reported Dengue cases, which was very high as compared to 2024 and thus a Province-wide Dengue Alert was issued [1]. In the relief camps of flood affected people in all over Punjab, the exposed population continued to be subjected to contaminated water and mosquitoes, which could lead to diarrhea, typhoid, malaria and dengue [2].

The downside of this trend is that it's very costly in terms of unnecessary morbidity. The same fragmented data reporting system could have undercounted similar outbreaks in the subsequent floods in 2022, as researchers have warned [2] and similar cholera and dengue data was recorded in 2022 for the flood alone in Sindh [5]. In addition to floods, Pakistan is experiencing a public health emergency over and over again, but without any reference to the basic needs of the people.

There is further confirmation for this diagnosis given by recent analysis of the 2022 and 2025 floods. Drawing on the disaster management cycle, Akhter et al. found that the existing meteorological, hydrological and disease surveillance data systems were not linked, and that there were gaps in the data information systems, which led to failing forecasting and the lack of timely dissemination of early warning information, leaving high-risk districts unprepared for each flooding season [6]. The findings of these analyses point to the fact that the severity of flooding events does not seem to be the reason for the increasing number of public health crises in the country, but rather the failure to develop institutional capacity following previous public health crises.

It will require an entirely new strategy to end this vicious cycle. Pakistan's health system has been treating the floods as a stand-alone event and has been reacting to outbreaks with spraying of larvicides after the event for the last two years. The missing component is climate-integrated public health infrastructure, including the pre-positioning of vector control and water-testing infrastructure and training of the workforce to view the initial response to flooding and the outbreak response as two sides of the same coin.

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