

## EDITORIAL

**FLOODS HAVE POSED SERIOUS HEALTH AND ECONOMIC CHALLENGES IN AFFECTED AREAS OF PAKISTAN****Tehseen Iqbal**

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Climate changes can contribute to flooding. The adverse effects of flooding include loss of life, property, and infrastructure damage, road closures, erosion and landslide risks, crop destruction and livestock loss, health risks due to water contamination, housing displacement and economic impacts. Exposure to contaminated floodwater can cause wound infection, skin rash, gastrointestinal disorders, and tetanus etc. Around 33 million people in Pakistan were affected by devastating floods that killed over 1,700 people. One-third of Pakistan was inundated and 116 out of 154 districts of Pakistan have been affected by floods. Frail, hungry, children are fighting a losing battle against severe acute malnutrition, diarrhoea, malaria, dengue fever, typhoid, acute respiratory infections, and painful skin conditions. The longer the crisis continues, the greater the risk to children's mental health. According to National Disaster Management Authority (NDMA), 2,000 health facilities, representing 10% of all health facilities in the country have been damaged. As a result, over 8 million people in flood-affected districts are in urgent need of health assistance. Less than 50% of all people needing health services are currently able to access health facilities. Cases of Severe Acute Malnutrition (SAM) with complications are on the rise. Floods have disrupted immunization campaigns. United Nation's revised Floods Response Plan was released on 4 Oct and seeks \$816 million to provide humanitarian assistance to 9.5 million people. As of 16 Dec 2022, donors had funded only 26.7% of the \$816 million requested. Lack of resources will definitely worsen the health crisis during winter season.

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Increased temperatures driven by climate change can contribute to flooding. The adverse effects of flooding include loss of life, property and infrastructure damage, road closures, erosion and landslide risks, crop destruction, livestock loss, and health risks due to water contamination, housing displacement and economic impacts.<sup>1</sup> Floodwater and standing waters can make people vulnerable to infectious diseases, chemical hazards and injuries. Floodwater can pose a drowning risk for everyone, regardless of their ability to swim. Floodwater can contain downed power lines, human and livestock waste, household, medical, chemical, biological, and radiological hazardous waste, coal ash waste, carcinogenic compounds such as arsenic, chromium and mercury, physical objects, rodents and snakes that can lead to injury and death. Contaminated floodwater can cause wound infections, skin rash, gastrointestinal illness and tetanus.<sup>2</sup>

Pakistan suffered a riverine as well as flash flooding this year. Flash floods can be caused by a number of factors, but is most often due to extremely heavy rainfall from thunderstorms. Flash floods can also occur due to dam or levee breaks, and/or mudslides.<sup>3</sup> Around 50 dams have been washed away in Baluchistan due to recent heavy rains and floods.<sup>4</sup> Around 33 million people in Pakistan have been impacted by the devastating floods that hit the country over this summer. Deadly floods in Pakistan have killed over 1,700 people.<sup>5</sup> One-third of Pakistan was inundated by the

recent floods. Of Pakistan's 154 districts, 116 have been affected by the floods caused by heavy monsoon rains that started in mid-July 2022. Most of the flood affected areas have limited access to safe drinking water, the biggest threat is from waterborne diseases such as diarrhoea, typhoid, and cholera.<sup>6</sup> As on 18 November 2022, National Disaster Management Authority (NDMA), Pakistan reported 1,739 deaths, about 8 million people displaced, 12,867 people injured, 13,115 Km roads, 439 bridges and 2,288,481 houses destroyed, and 1,164,270 livestock deaths due to floods.<sup>7</sup> Apart from loss of human lives, this has caused a heavy economic loss to the affected areas as well as to the national economy.

Months after unprecedented floods ravaged Pakistan, vast cropland and villages remain under water. Millions of people are still exposed to floodwaters or living close to flooded areas. Many families are still living in makeshift tents alongside the road. Frail, hungry, children are fighting a losing battle against severe acute malnutrition, diarrhoea, malaria, dengue fever, typhoid, acute respiratory infections, and painful skin conditions. The longer the crisis continues, the greater the risk to children's mental health.<sup>8</sup> According to the NDMA, 2,000 health facilities, representing 10% of all health facilities in the country have been either damaged or destroyed. As a result, over 8 million people in flood-affected districts are in urgent need of health assistance. Less than 50% of all people needing health

services are currently able to access health facilities. Recent surveillance data from district and provincial authorities indicates spikes in the number of cases of malaria (with numbers almost doubling in some areas), dengue, and acute watery diarrhoea. Cases of Severe Acute Malnutrition (SAM) with complications are also on the rise. Floods have also disrupted immunization campaigns, expanded programme on immunization (EPI) surveillance efforts, the cold chain as well as the treatment of chronic disease, such as tuberculosis (TB) and human immunodeficiency viruses (HIV). The nationwide polio vaccination campaign has also been disrupted, which is concerning as Pakistan is one of the two remaining polio-endemic countries in the world. Stocks of essential medicines and medical supplies have been washed away or are critically low, and transport infrastructure has been severely damaged, making access to essential health services extremely challenging.<sup>9</sup>

Pakistan has a fragile economy which suffered a lot due to recent floods. The Ministry of Planning, Development and Special Initiatives led the Post-Disaster Needs Assessment (PDNA), which was conducted jointly with the Asian Development Bank (ADB), the European Union (EU), the United Nations agencies with technical facilitation by the United Nations Development Programme (UNDP), and the World Bank. Pakistan flood damages and economic losses are over USD 30 billion and reconstruction needs over USD 16 billion—New Assessment by The World Bank on 28 October 2022.<sup>10</sup> As of 25 October, the government had reached over 2.7 million flood-affected households with cash assistance of \$113 (PKR 25,000) per household under the Benazir Income Support Programme, a government program that provides cash transfers to women and their families from the poorest households across the country. As of 26 August, the UN had already mobilized \$7 million for its response to the floods, and on 30 August the body issued a Flash Appeal for \$160 million to support the response. A revised Floods Response Plan was released on 4 October and seeks \$816 million to provide humanitarian assistance to 9.5 million people. As of 16 December, donors had funded only 26.7% of the \$816 million requested.<sup>11</sup>

Vast cropland remaining under water and more than a million livestock deaths, there is a danger of increased poverty in flood affected areas. Poverty and ill-health are generally believed to have a bidirectional causality relationship, and poverty-led diseases contribute to a vicious cycle of poverty and disease.<sup>12</sup> Cold weather, lack of food, lack of dry burning-wood for cooking, health facilities and roads destroyed, lack of resources to reach health facilities, and inability of mobile health units to reach the flood-water-surrounded people, will definitely worsen the health crisis during this winter season!

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