Short Communication

The floods of 2022: Economic and health crisis hits Pakistan

Maham Iqbal *, Azkah Rabbani, Fatima Haq, Sunaina Bhimani

Dow University of Health Sciences, Karachi, Pakistan

**ARTICLE INFO**

**Keywords:** Flood destruction, water-borne diseases, health crisis, economic crisis

**ABSTRACT**

Pakistan is currently going through the worst-ever recorded flood crisis. The 2022 floods have created unprecedented destruction, especially in the coastal regions of the country. Almost one-third of Pakistan has drowned, merely as a consequence of climate change which is impacting many countries around the globe, with the South Asian countries at the greatest risk due to their proximity to the equator. The National Disaster Management Authority (NDMA) has reported millions of people to be affected by the catastrophic floods. The country is also going through a major economic crisis due to livestock and agriculture being destroyed, which has led to severe food shortages resulting in the flood victims being vulnerable to malnutrition as well. Health care has also been severely affected, with a serious outbreak of waterborne diseases including diarrhea, dengue fever, malaria. Thousands of pregnant women are unable to access maternity services and menstrual hygiene products are also unavailable in flood-stricken areas. The Government of Pakistan should address this urgent matter as a priority and necessary steps should be taken to try and contain this catastrophe.

Climate change is impacting many countries throughout the globe which varies according to the geographic locations, ecological conditions, and level of economic development of each country. Pakistan, a developing country is at the highest risk of facing the unfavorable effects of climate change as indicated by increased variability of monsoon, rising temperatures, melting of Himalayan glaciers, and increase in the intensity and frequency of extreme weather conditions and natural disasters [1].

Pakistan normally receives two to three cycles of monsoon each year, however, currently going through its eighth cycle [2]. The two of the worst-hit provinces, Sindh and Balochistan, have recorded 680.5 mm and 284 mm of rainfall which is about six times more than the average downpour this year, respectively [3]. The scale, scope, and spread of the 2022 floods have surpassed the floods of 2010, and have created unprecedented destruction in all regions of the country [4].

This paper aims to highlight and create awareness about the catastrophe caused by floods this year throughout Pakistan, urge the government to take immediate action to help the flood affectees, identify the root cause of the frequent natural disasters and introduce measures to minimize them.

The Natural Disaster Management Authority (NDMA) has declared catastrophic floods a national emergency after more than 33 million people have been severely affected as the monsoon rains continue to strike the country [5]. Since mid-June, at least 1208 people have died, including 416 children, as well as 6082 injured [6]. Because of our impoverished base, this unexpected cataclysm has drowned away about one-third of Pakistan amid a prodigious amount of rainfall [7]. Although the whole country has faced the consequences, the provinces of Sindh and Balochistan have suffered the most. Sindh has witnessed the devastation of 23 districts, and thousands of houses are reported to be wrecked with more than 700 people injured, out of which at least 239 have died across the province [8]. Balochistan has also witnessed damage to the infrastructure with nearly 166 people injured and more than 263 dead [9]. Because of this widespread demolition of people’s homes, more than half a million people are presently living in relief camps across the country [10]. Reports state that almost four-fifths of the total crops in Sindh have been damaged, which accounts for roughly one-third of Pakistan’s total cotton crop. As a quarter of Pakistan’s gross domestic product is based on the agriculture sector, the economy is bound to take a hit in an already suffering country, further aggravating the problem. Inflation touched 27.3% in August due to shrinking foreign exchange reserves, this widespread damage has conclusively left Pakistan in an economic crisis with the loss of around ten billion dollars [11].

Most of the people in the affected areas are dependent on livestock for their food and living. A 2021 study assessing the frequency of micronutrient deficiency among children in flood-affected areas of Pakistan has shown that these children possess inadequate amounts of
vitamin A, calcium, zinc, iron, and iodine [12]. The recorded death of more than half a million livestock has worsened the crisis [13]. Food shortage and increase in prices are even more aggravated by the destruction of more than 129 bridges which hinders the distribution of fruit and vegetables to markets [14]. These occurrences are making flood victims more vulnerable to malnutrition. Even small-scale and relatively less destructive floods are found to severely disturb people's lives and crucially impact not only their physical health but also their mental health and comfort [15]. Among the affected ones, females are in especially dire need of appropriate facilities and treatment. The unavailability of menstrual hygiene products poses them at a dangerous risk of urinary tract infections. According to the United Nations Population Fund (UNFPA), approximately 650,000 women are currently pregnant, with 73,000 close to their final month of pregnancy, and will require maternity care soon. The massive floods and ensuing widespread destruction in Pakistan have given birth to a serious outbreak of water-borne diseases as mentioned by the World Health Organization (WHO) which needs effective actions to be dealt with. In camps where water and sanitation facilities are impaired, over 134,000 diarrhea cases and 44,832 malaria cases have been reported so far. Furthermore, the incidence of eye infections and skin diseases is also rising. 101 cases of snake bites have also come into notice in flood-stricken areas [10].

Regarding the situation at hand, there is an urgent need for means of relocation for the displaced victims, and the government of Pakistan should address this matter as a priority. Non-governmental organizations should join hands with the government for the allocation of basic resources for the victims, starting with safe drinking water to curb the spread of the aforementioned water-borne diseases, drugs for treatment of the people already afflicted, and female hygiene products for the women.

It should be noted that adequate surveillance of water levels during monsoon and issuing a due warning, can make mass evacuation possible even before disaster hits, which will have a significant impact on the death toll. Keeping in mind the historical evidence regarding poor flood management in Pakistan, surveillance at a local and national level is a dire need. Investment in dams, reservoirs, and deep wells, can help prevent such a calamity in the future, as well as alleviate the ongoing power crisis in the country. Awareness campaigns aimed at wider dissemination of knowledge with regards to silent methods of disease transmissions during such times should be conducted throughout the year to educate the local population and reduce the statistics for disease spread in the following years.

With as many as nine hundred health facilities affected or destroyed, millions are deprived of medical facilities and care. Keeping in view the alarming statistics, help from international health bodies should be sought, and post-flood destruction should be contained. WHO has declared the crisis as a grade 3 emergency which is the highest level in its internal grading system, hence urgent actions from all classes of organizations are strongly required [16].

Ethical approval

No ethical approval was required for this paper.

Please state any sources of funding for your research

No funding was acquired for this paper.

Author contribution

Maham Iqbal: Concept of the study, writing the paper and final approval of the manuscript. Azkah Rabbani: Concept of the study, writing the paper and final approval of the manuscript. Fatima Haq: Concept of the study, writing the paper and final approval of the manuscript. Sunaina Bhimani: Concept of the study, writing the paper and final approval of the manuscript.

Please state any conflicts of interest

The authors declare that there is no conflict of interest.

Registration of research studies

1. Name of the registry: Not applicable
2. Unique Identifying number or registration ID: Not applicable
3. Hyperlink to your specific registration (must be publicly accessible and will be checked): Not applicable

Guarantor

Maham Iqbal, Azkah Rabbani, Fatima Haq, Sunaina Bhimani.

Consent

No consent was required for this paper.

References

[1] S. Malik, H. Awan, N. Khan, Mapping vulnerability to climate change and its repercussions on human health in Pakistan, Glob. Health 8 (1) (2012) 31.
[2] Z. Abbas, Pakistan declares emergency in the face of calamitous floods [Internet]. DAWN.COM. 2022 [cited 2022 Sep 10]. Available from: https://www.dawn.com/news/1706862.
[3] I. Ayub, Balochistan, Sindh see “more rain than ever” recorded [Internet]. DAWN.COM. 2022 [cited 2022 Sep 10]. Available from: https://www.dawn.com/news/s/1706861.
[4] A.T. Sheikh, Man-made catastrophes [Internet]. DAWN.COM. 2022 [cited 2022 Sep 10]. Available from: https://www.dawn.com/news/1706704.
[5] BBC News [Internet], Pakistan Floods: Monsoons Bring Misery to Millions in Pakistan, 2022 Aug 26. Available from: https://www.bbc.com/news/world-asia-62646037.
[6] Taj QAK | R | D com | S | MAK | IA, Water level rising in Dadu as death toll from devastating floods crosses 1,200 [Internet]. DAWN.COM. 2022 [cited 2022 Sep 10]. Available from: https://www.dawn.com/news/1708030.
[7] Pakistan floods: One third of country is under water - minister. BBC News [Internet]. 2022 Aug 30; Available from: https://www.bbc.com/news/world-europe-62712301.
[8] [Internet], Sindh Declares 23 Districts Calamity Hit, Death Toll Reaches 239, The Express Tribune, 2022 [cited 2022 Sep 10]. Available from: https://tribune.com.pk/story/2372728/sindh-declares-23-districts-calamity-hit-death-toll-reaches-239.
[9] Death toll from monsoon rains, floods in Balochistan climbs to 263 [Internet]. Latest News - The Nation, 2022 Sep 10. Available from: https://national.com.pk/2022/09/07/death-toll-from-monsoon-rains-floods-in-balochistan-climbs-to-263/.
[10] ANI, Outbreak of waterborne diseases in Pakistan amid floods raises concern, Business Standard India [Internet], 2022 Sep 20; Available from: https://www.business-standard.com/article/international/outbreak-of-waterborne-diseases-in-pakistan-amid-floods-raises-concern-122090400212_1.html, 2022 Sep 4.
[11] A. Hussain, After record floods, now Pakistan has to worry about economy [Internet], : www.aljazeera.com https://www.aljazeera.com/economy/2022/9/7/after-record-floods-now-pakistan-has-to-worry-about-economy, . [cited 2022 Sep 10]. Available from.
[12] I ul Haq, Z. Mehmood, A.M. Mushid, B. Ahmed, J. Shah, N. Khan, et al., Prevalence of micronutrient deficiencies among preschool and school-going children in flood-hit areas of Pakistan, Am. J. Trop. Med. Hyg. 105 (6) (2021 Dec 1) 1638–1644.
[13] S.R. Hassan, Pakistan Appeals for International Assistance after Floods, Reuters [Internet], 2022 Aug 24 [cited 2022 Sep 10]; Available from: https://www.reuters.com/world/asia-pacific/pakistan-appeals-international-assistance-after-floods-2022-08-24/.
[14] Floods wreak havoc across Pakistan, dead since mid-June [Internet], AP NEWS 903 (2022) [cited 2022 Sep 10]. Available from: https://apnews.com/article/floods-pakistan-climate-and-environment-dcb61e4085c8493d1912aef8bee439f6.
[15] S.M. Tapsell, S.M. Tunstall, I wish I never heard of Banbury": the relationship between "place" and the health impacts from flooding, Health Place 14 (2) (2008 Jun) 133–154.
[16] Pakistan, WHO warns of significant health risks as floods continue [Internet], UN News, [cited 2022 Sep 10]. Available from: https://news.un.org/en/story/2022/08/1125875, 2022.