

FLOODS IN PAKISTAN AND ITS SECTORAL IMPACT

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(Views expressed in the brief are those of the author, and do not represent those of ISSI)



Pakistan is situated with the highest disaster risk levels in the world. In 2019, Pakistan ranked 18 out of 191 countries on the Inform Risk Index. Since 2010, Pakistan has been facing severe floods due to manmade and natural climates. Continuous flooding has a devastating effect on infrastructure, agriculture, and human lives. Nonetheless, agriculture is the main source of revenue and livelihood for most of the people living in flood-affected areas. According to the official estimates, over 18 million people have been affected by the deluge; over 11000 villages and 1.74 million homes have been destroyed or damaged.¹

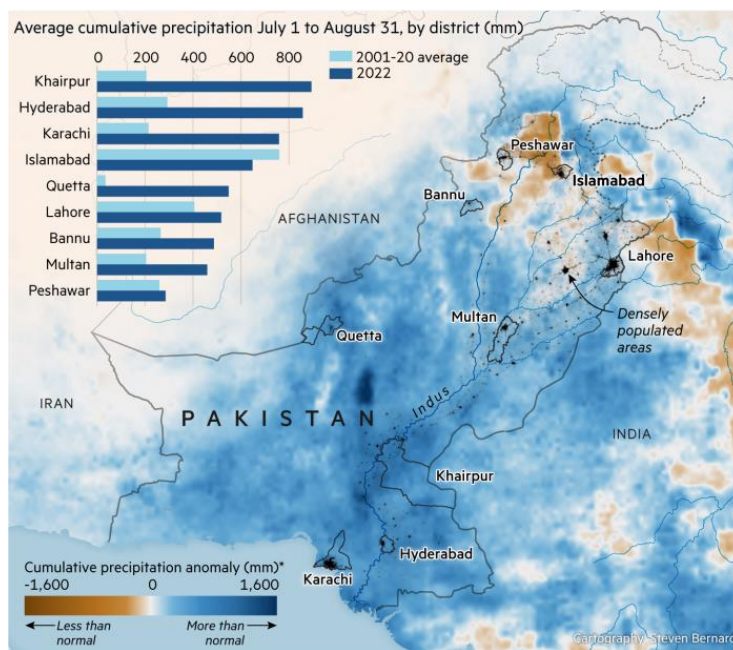
The current flash flood and monsoon rain have affected one-third of the total population. More specifically, about 1300 deaths, 3554 injured, houses destroyed 1, 0573 livestock, 730,438 and two million crops were impacted, and people were directly affected; 218 thousand houses were damaged. The United Nations and the Pakistani government have issued a flash appeal for \$160 million to help the country cope with catastrophic floods. Sources said this figure would reach Rs1.30 trillion in total and was expected to further rise.²

¹ "Country profile-Pakistan", Climate change knowledge portal, World Bank group access on 05 September 2022

<https://climateknowledgeportal.worldbank.org/country/pakistan/vulnerability>

² 'UN issues \$160m flash appeal to help Pakistan cope with catastrophic floods,' Dawn News, August 30, 2022 <https://www.dawn.com/news/1707548/pakistan-needs-10bn-for-flood-repairs-rebuilding-ahsan-iqbal>

Pakistan's monsoon season affects tens of millions



*July 1 to August 31, 2022 compared with 2001-20 average over the same period
Sources: FT calculations of Nasa data; WorldPop
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Effects on Agriculture Sector

Agriculture is the main source of revenue and livelihood for approximately 80 percent of the people in the affected areas. The floods have run through the most fertile and productive lands and eliminated sources of livelihood for subsistence farmers and herders, 45 % of agricultural land is now destroyed. According to preliminary estimates, 65 % of Pakistan's main food crops including 70 % of its rice have been swept away during the floods, and 3 million livestock have died.³ Primary agricultural infrastructure such as tube wells, water channels, household storage, animal sheds, personal seed stocks, fertilisers, and various agricultural machinery and equipment have also been destroyed. Pakistan will likely have to import more food, which could raise costs and worsen the country's balance of payments crisis. Before the floods, food inflation was at 26 %, and in recent days some costs have surged by as much as 500 %.⁴ Some of the effects are as follows:

- According to some estimates the direct crop loss due to flood damage in Pakistan is worth \$2.3 billion and is likely to take years to be rebuilt.⁵
- The calamity has destroyed cotton, corn, rice, sugarcane, pulses, tomatoes, onions, and other crops across the country. The document revealed that Sindh's agricultural sector had

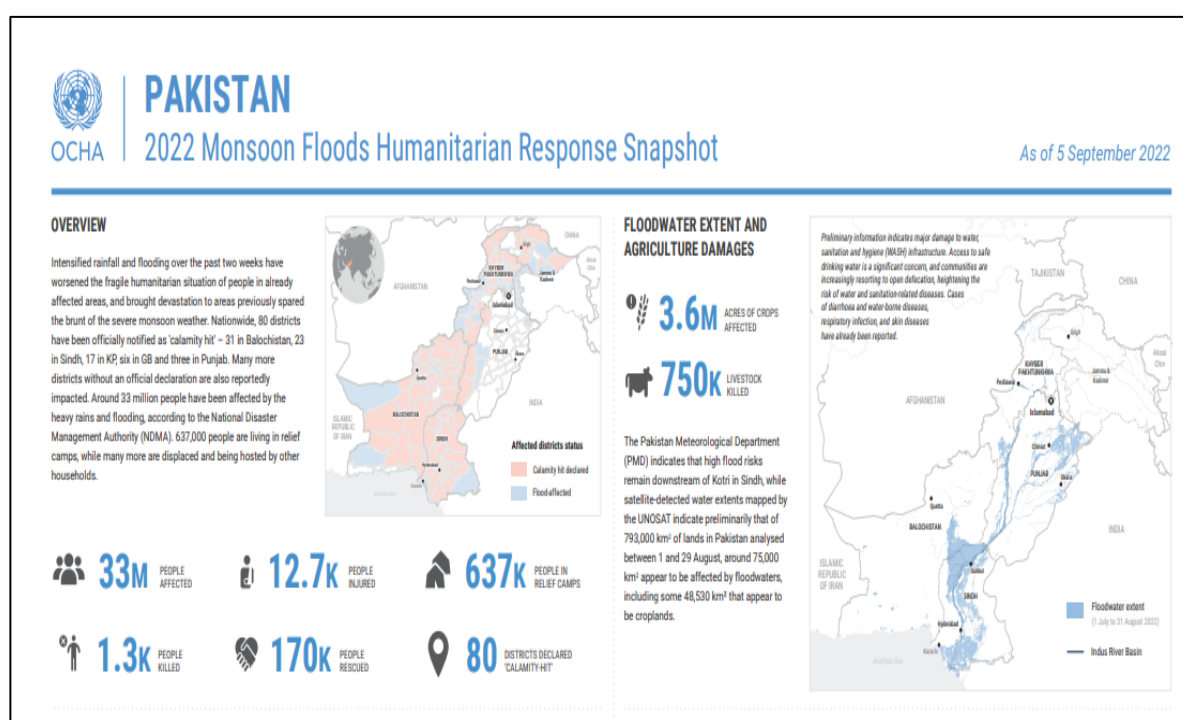
³ Michael Kugelman, 'Pakistan's flood crisis could become a food crisis, Foreign Policy, September 8, 2022 <https://foreignpolicy.com/2022/09/08/pakistan-floods-food-security-crisis/>

⁴ Ibid.

⁵ 'Deadly floods swamp farms in Pakistan, flushing away crops' *The News*, September 1, 2022

suffered the most with a loss of more than Rs300 billion so far. In Khyber-Pakhtunkhwa, farms have suffered a loss of over Rs36 billion.

- Crops standing on an area of more than 2.4 million hectares were destroyed in Sindh.⁶ Sugarcane, pepper, tomato, rice, onion, and other vegetables have been partially damaged in Sindh. Cotton and dates had been completely washed away in the province.
- In Balochistan, crop damage is higher in the districts of Labela, Sibi, and Awaran, where areas of 50,000 acres, 3,400 acres, and 3,212 acres, have been affected, which resulted in a loss of Rs. 4.9 billion, Rs1.02 billion, and Rs963.6 million.⁷



According to the financial year 2021-22 economic survey, the livestock sector accounted for 61 per cent of Pakistan's agricultural value-added products, while the share of livestock in Pakistan's overall GDP was 14 percent. The death of animals is a huge loss for poor families as the cost to replace them is equivalent to many years of earning.

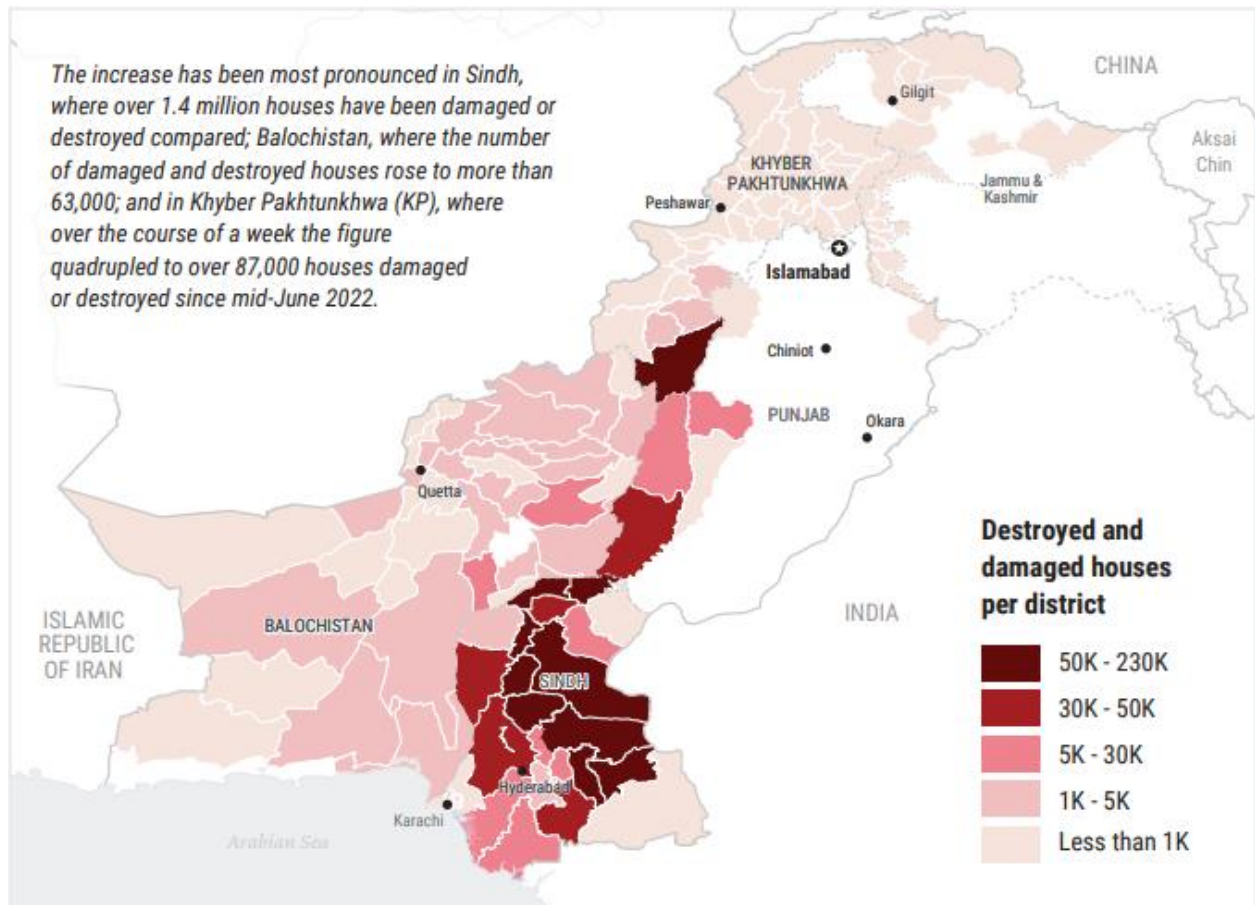
- According to the National Disaster Management Authority (NDMA), from June 14 to August 28, the data received from the district administrations across the country, 727,144 cattle have died so far.

⁶ 'Farm sector to take Rs500b hit due to rains, floods,' *The Express Tribune*, September 02, 2022 <https://tribune.com.pk/story/2374007/farm-sector-to-take-rs500b-hit-due-to-rains-floods>

⁷ Ibid.

- More than 500,000 cattle have died in Balochistan, 8,771 in Khyber-Pakhtunkhwa, 23,000 in Punjab and 15,000 in Sindh.⁸
- According to Progressive Farms, due to the death of cattle, there is a shortage of meat, milk, curd and milk products in the country. The statistics show that 266,700 cattle have died in Rajanpur, 1,784 in Dera Ghazi Khan, 331 in Mianwali and five in Leh.⁹

Damage to Infrastructure



Pakistan: 2022 Monsoon Floods Humanitarian Response Snapshot (As of 6 September 2022)¹⁰

The physical infrastructure of the county has been badly damaged as well, causing billions of dollars of losses to the national treasury.

⁸ Asif Mehmud, 'Floods, rains kill over 727,000 cattle', The Express Tribune', August 30,2022 <https://tribune.com.pk/story/2373850/floods-rains-kill-over-727000-cattle>

⁹ Ibid

¹⁰ "OCHA-PAK-MonsoonFloodsSnapshot-20220905-FINAL," OCHA, September 6, 2022, [file:///C:/Users/Khetran/Downloads/OCHA-PAK-MonsoonFloodsSnapshot-20220905-FINAL%20\(1\).pdf](file:///C:/Users/Khetran/Downloads/OCHA-PAK-MonsoonFloodsSnapshot-20220905-FINAL%20(1).pdf)

- According to government estimates, 1057338 houses, 145 bridges, 3000km roads and 9 percent of the national highway systems have been affected.
- Pakistan Electric Power Company has reported a loss of Rs 460 million to its installations. Northeast Balochistan is cut off from the rest of the country hampering relief operations for six days.¹¹
- The floods have significantly damaged educational infrastructures as 17,566 schools have been damaged or destroyed, further jeopardising the education of children.
- After two years of pandemic school closures in the last few years, children once again risk further disruption to their learning, in areas where one-third of girls and boys were already out-of-school before the crisis.
- With school buildings used as shelters, it may take more time even after the floods subsided for victims to find alternative housing, which will also affect when students can return to classrooms. There are fears these students may permanently go out of school.¹²

Conclusion

Pakistan is among the top ten most vulnerable countries to climate change and the country has done little to prepare itself for dealing with natural disasters. On the economic front, Pakistan is already facing record high inflation of 24.9 percent, and the recent floods have exacerbated the crisis due to huge loss of crops, infrastructure and other livelihood opportunities. The damage to food supplies have increased the need for imports and hence put pressure on the country foreign exchange reserves. The recent floods have made it clear that climate change is a real threat, and we must be prepared to mitigate the effects of it. The Government must take serious measures to deal with floods in future.

¹¹ 'Floods damage bring havoc to road infrastructure', *Daily Times*, August 29, 2022

<https://dailytimes.com.pk/988909/floods-damage-bring-havoc-to-road-infrastructure/>

¹² Naimat Khan, "Future of education at risk for millions of students in south Pakistan after floods," Arab News, September 4, 2022, <https://www.arabnews.com/node/2156251/world>