

Unpacking The Floods In Pakistan: On Root Causes, Challenges And Gaps In State Capacity

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On 25 August, Pakistan declared a state of emergency due to flooding, which has been described as among the worst in the country's history. Millions of people have been displaced due to rain and flooding with UN preliminary estimates indicating that 575,000 people were living in relief camps at one point. In light of this crisis, *Himal Southasian* interviewed public policy analyst Dawar Butt, who is also co-founder of Climate Action Pakistan, a collective of climate environment advocacy groups, in order to discuss the situation on the ground as well as examining some of the root causes for the exacerbation of flooding in the country.

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Himal Southasian: Firstly, what is the current situation in the country right now? How many people have been affected, how many displaced?

Dawar Butt: By the time the government declared an emergency, a lot of the areas had already been submerged. There are about 33-35 million people who live in these regions who have been affected. We have up to 10 million people who have been displaced. In the northern part of the country, we have temporarily displaced people returning into homes. But in Sindh and Balochistan, areas are still under water. In certain parts they're under 12 feet of water. People will take time to return to those cities. Government records say that 1500 people lost their lives. But this is such a tragedy that you cannot really give sure-shot numbers at this point. The death toll is surely going to increase. You have 1 million livestock losses as well, and as this is a primarily rural region, people's livelihoods have been affected. So recovery is going to be very difficult. And then you have infrastructure losses. The government has been unable to reach certain parts because roads do not exist anymore, even bridges have washed away and electricity cannot be provided because grid stations are also underwater. Over the past week, there has been a reduction in flood waters in certain parts especially the freshwater lake in Manchar, the water there has started receding because they have artificially created outlets for the [excess] water to exit, But those outlets have actually had to go over land which means that anything between the Indus River and the Manchar lake was flooded, just to release the water from the lake. So this is where we stand right now. I think the coming period will be difficult. Because you have reports of disease outbreaks, mosquito infestations. You have reports of snakes coming out, and the unavailability of antivenom.

HSA: How have people been impacted, particularly in poorer states outside of the capital?

DB: In the past, a lot of flooding and other events occurring during monsoon season were related to the river flooding regions around it. In 2010, the big city of Multan was very close to getting flooded. But this wasn't a riverine flood. What we've seen was immense amounts of rainfall. A lot of these

regions including low-lying areas like Sindh had created artificial embankments. [People] assumed that flood water from the river might flood inland areas. But rainwater came, and then the [excess water] didn't have any outlets, because of the embankments lined up along the river for miles and miles. Big cities like Karachi regularly have faced episodes of urban flooding, and that drastically affects a cross-section of the population as well, but in a different way. You still have damaged roads, you have water pipelines that have been damaged and dirty water gets in. Of course, in big cities like Islamabad that are linked to plains and hilly areas, [excess] water has points of drainage, but these rural areas of Sindh specially, are flatlands. In big cities, the people living there are safe, they have the privilege to be walking around - the situation isn't the same.

HSA: What are the most immediate challenges for Pakistan concerning flood-driven displacement? Especially for communities who have been living in increasingly precarious areas. Are those needs being adequately addressed?

DB: Clean water, food and availability of health services is crucial at this point. We have areas where people are still without temporary shelter. But there is also the issue that just after the monsoon, the heat returns. So the [temperature] has reached 40 degrees in some areas. People living in tents find it very difficult to breathe or stay there the entire day. A lot of them have preferred to build their own shelters near cities or highways. They're reluctant to stay in relief camps especially if there's no maintenance from the government. At the same time some areas have access to large shady areas, and vegetation, some don't. So not just clean water but also some form of cooling is important. The government might actually have to supply large ice blocks, because that is a way people in these cities already avoid heat. In cities like Jehanabad, Qambar, Ladhana, during extremely hot months, they use these huge ice blocks to keep themselves cool, and for drinking and bathing. The heat will likely recede by mid to end October. But in the meantime, because of the heat and humidity you also have the spread of disease.

HSA: To that point, the Director General of the World Health Organisation has warned of a second crisis due to the spread of cholera and lack of access of health services. Does this bear out on the ground?

DB: Yes. Just yesterday the government estimated that 100,000 people have been treated for some type of disease in just one day. This will only increase. The displaced population in Sindh is about 3-5 million. People - grown-ups, children, women, old people - everyone has a different issue.

Among those who have died, at least one-third are children. The UNFPA [United Nations Population Fund] estimates that 730,000 women are pregnant in the impacted areas. With non-availability of clean water, and a complete breakdown of education and health infrastructure, women and children face severe long-term impacts. Reports of sexual violence against women and girls have also been received from a few areas.

Then you have kidney patients, they require dialysis and we don't have that availability anymore. Some people require regular check-ups, so that sort of treatment has to happen. There is a big burden especially for vector-related diseases like malaria and dengue. And then you have dirty water so you have people who have gastro, you have chances of typhoid breaking out. And it's also linked to where people are. So in various areas where people were able to shelter themselves, they might still be safe, but people who are displaced completely, they're very much at risk.

HSA: If we go back and look at root causes, why do you think the impacts of flooding have been felt more this year?

DB: In monetary terms, the estimate [of damages] is similar to the 2010 floods, but in the coming

months it might exceed it by a slight bit. The impact is bigger when we talk about the number of people affected, the human impact. If we account for all the areas that were flooded, you'd come to an estimate that one-fourth to one-fifth of the country at some point had flood water on it. Even at this point, one-tenth of the country's landmass has flood water. While we look at the riverine floods it was much less and it did not exceed one-tenth at any point. And because then it was around the Indus river - so wherever the river was traveling with high floods those regions were affected - right now the primary issue is the water has nowhere to go. So the issue is the human impact over a time period, is a lot more. Similarly, you cannot assess what will happen in the coming months because there is no estimate on when the rainwater will recede. For the river floods there were certain calculations that these are the points, this is the flow of water. But now in certain areas there is no flow of water. Those areas will have to wait it out; which means either by evaporation or by soil absorption, that water will move. The government will try to intervene by bringing in pumps, bringing in various methods to clear out the water, but again there's no assessment of how long that will take. A rough estimate is for around 6 to 8 months there will be water in areas that are submerged.

HSA: What role has climate change held in exacerbating impact?

DB: From the winter of 2020 to 2021, the Met Department was consistently notifying that there's a drought in Pakistan. Then ICIMOD [the International Centre for Integrated Mountain Development] did an assessment of the Karakoram region and noted that snowfall had also decreased. This year, the river flow was minimal. By late May the river started to have more water, and that was basically because there was not enough snowfall until then. So the water flow from [melting] glaciers did not come about until Pakistan had a very long heatwave. This heatwave was made more likely because of climate change, and it was not supposed to be this extreme nor recur so frequently, when compared to century-old records. And over the past two to three years it's been noted that the La Nina phenomena usually does not occur year after year. [La Nina is an oceanic and atmospheric phenomenon occurring when strong winds blow warm water at the ocean's surface away from South America, across the Pacific Ocean towards Indonesia]. This is the third year running for the La Nina, it usually does not occur more than twice. More regularly it's just once a year and then you return to the El Nina phenomenon. This along with the heatwave, caused very high sea surface temperatures, which encouraged moisture buildup in the atmosphere, and then the 3-year recurring La Nina pattern. What we saw was that the monsoon pattern was altered. The monsoon hit the areas most heavily impacted by the heatwave itself. So upper Sindh, parts of Balochistan, and southern Punjab saw 50 to 51 degree temperatures. The monsoon usually impacts upper Punjab and parts of the Khyber Pakhtunkhwa (KP) province, parts of Kashmir as well. It travels throughout India. What we saw was that it changed direction. It traveled over Rajasthan and it came over the Sindh province and parts of Balochistan and did not move any further, because it was carrying a lot more moisture. So the rainfall was a lot more erratic and unbelievably high. The information we have right now says that a lot of these are dependent on effects caused by global warming, heat, high moisture content, changing patterns of the monsoon. All these factors combined caused an immense amount of rainfall.

HSA: Why do you think there was initially so little media coverage of the floods, particularly those originating in Balochistan province in June?

DB: These areas have their own local media and people who are active on social media. So those are the sources of information we initially had. Pakistan's mainstream media, especially people in urban areas, and policymakers don't generally watch these smaller outlets. Print media has a reduced presence there as well, largely because they depend on hiring freelancers or their own staff reporters who are situated in lower populated areas. In Balochistan, the rainfall was over this mountain range called the Sulaiman range. The Sulaiman is a sharply elevated area right next to the

plains of Sindh. So any rainfall there basically becomes very fast streams of water. The speed of the water broke down the protective embankments, and then they kept on flowing into the lake, and especially the western part of Sindh. You had people active in these regions actually posting TikToks, and those videos were being shared on WhatsApp. In the northern areas we saw a similar phenomenon. The videos we saw of bridges getting destroyed, footage of property being flooded, destroyed and swept away by the river were shared by locals on the ground and not mainstream media. So overall media presence is lacking in these areas. The mainstream media also does not know how to cover climate change in Pakistan or environmental issues in general. Also, the country itself is experiencing an economic crisis, there's also political turmoil. A lot of this becomes the focus of mainstream media. They want to talk about currency depreciation, they want to talk about food prices. They would show you a little bit of information about how much rain was recorded in particular areas. But what was happening was not in their view.

HSA: We've been talking about human impact and much of the coverage has analysed the flooding purely from the angle of climate change. You've noted that lack of state capacity has also contributed to the impact of the flooding in Pakistan. Could you elaborate on how the state's response fell short?

DB: That's very true. One of the reasons for Pakistan's vulnerability [to climate change] is the lack of state capacity. In terms of conducting risk analyses and preparedness, Pakistan is lacking. Since the creation of the Ministry of Climate Change, the Climate Change Council has never once been convened by successive governments. In fact, the three major political parties have not seriously invested in disaster prevention and preparedness. On a more local level there are parts of the country where state services are minimal. In parts of Balochistan, Sindh, and parts of KP [Khyber Pakhtunkhwa] province, you wouldn't have adequate police services, even health services, let alone disaster management policies. It is also local elected authorities who control various resources. Provincial DMAs [Disaster Management Authorities] have not been given enough resources, while Provinces have not activated District DMAs, even after being provided more and more resources after devolution of 2010. So this is also something that has delayed response.

The problem is, this is a bigger problem than climate change. Climate change just exposed these faultlines. There needs to be much more investment, and much more participation by local government including at the village and town council level. At the same time, the government has to develop capacity by looking at the needs of the people.

HSA: What are your thoughts on infrastructure (such as dams) being proposed as a solution for disaster preparedness?

DB: So the discussion around infrastructure and dams would have made sense in a situation similar to the 2010 floods, when the Indus river itself was overflowing. They would not in this case where there was heavy rain. There's a hugely complex debate between the different federative units of the country that by building infrastructure [like dams] in the north and central parts of the country the state would slow down water availability to the coastal region and central parts of Sindh. For the past two years, before flooding, Pakistan experienced drought and heat waves. This region, especially the coastal parts that are dependent on the flow of the river, have been losing vegetation. People have been migrating to big cities because there's been a lack of water, and they cannot conduct agriculture. Their earnings from fisheries have diminished. So the debate on infrastructure has to account for these things. In terms of access to roads and other development, there has been improvement over the last 15 years, where rural areas were getting more and more connected. Some of the highways were refurbished, and you had new highways built as well. But looking at the total impact of the floods would require a real assessment of what proportion was related to the river, what proportion was related to glacial torrents, what proportion was from rain. At the same

time Pakistan is building two big dams in the north of the country. Those projects are said to be inaugurated by 2028 or 2030 so you already have infrastructure in place over the river. It wasn't like the building of dams has been stagnant in the country and there have been dams built along the smaller rivers. In Balochistan, smaller dams were built after the 2010 floods as well. Some of those dams have been damaged in these floods.

HSA: That's a salient point. Speaking of response, there has been a mushrooming of fundraisers and relief efforts by volunteers, many of them from non profits. What do you think that denotes?

DB: Pakistan has a long history of non-profits, particularly charity organisations stepping forward to assist during disasters. We have a huge fleet of ambulances run by private organisations. Part of these initiatives were formed in response to terrorism over the past decade. Some of them are also specialised organisations working on health-related issues, or other focus areas like child protection and women rights. A lot of those organisations have combined their efforts. Since they have an on-ground presence in these districts already and are reliable, they have been providing water, food and shelter to those affected. The government also is assisting them because the district administrations where these nonprofits are operational usually require administrative support and even security. We see a lot of reports of angry people stopping caravans of food being distributed, because they want food themselves. Schools that are still standing are being used as relief camps, and there the government deploys health facilities and medicine, such as vaccines, life-saving drugs and donations that are being received. For example, there are countries that have been donating tents and bedding for relief measures. Those have been channelled by the government and tent cities have been established wherever there is dry land. There are some areas that are still only accessible by helicopter. The government tries to carry out food drops in these areas but that's not a very sustainable situation. There are calls for donations from the UN as well. Some countries have pledged resources, some have pledged money. How efficiently aid is managed by the government is a big gray area as well. It is evident that the Pakistani state machinery is not capable of handling this alone. Perhaps more resources and a more focused approach from the government is what's needed, as well as more collaboration with non-profits - as they work in specialised areas and would not take up the government's time and resources.

HSA: In the aftermath of the floods, climate change minister Sherry Rahman and others have raised the topic of climate reparations. Do you think there's a case to be made for climate reparations for countries in the global South?

DB: What the government says is somewhat simplistic. The government has tried to make a case in terms of debt relief, saying the loans received over the past few years cannot be repaid because Pakistan has to use the money for rehabilitation. In civil society, academia or activist circles, the debate is more around loss and damage. In the larger scheme of things Pakistan has to call for reparations, and look at how a lot of scientific literature says that heat waves, glacial melting, public health issues, chances of increased and erratic rainfall, have all been caused by climate change which in turn, has been caused by countries in the global north - countries which have been effectively protected from all of the worst impacts. In crude terms, someone has left a bomb at our doorstep, and it's started blowing up, but the responsibility should not lie with our region, because we are completely vulnerable. We need to hold the people responsible accountable, and that's of course industries and states from the global north.

Himal Southasian
Dawar Butt

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