Urban Water Poverty and the Disproportionate Distribution of COVID-19 Risks in South Asia

1. Why talk about South Asia's urban poor?

COVID-19 has now become a global pandemic. Human beings are facing such a scale of risk in more than a hundred years (perhaps after the Spanish Flu).

According to recent media reports, those at highest risk of suffering from the pandemic are the 300 million urban poor living in South Asia, where cases are rising (as we write this on 12 May 2020). Most of these people live in urban slums, with many not officially entitled access to water from the public supply systems. In addition, there is a large floating population in the cities of South Asia. These include domestic or foreign migrants in low skilled jobs, living in small-room dwellings often deprived of basic amenities.

The virus has laid bare these forms of poverty previously hidden in plain sight, with more frequent scenes of people piling the streets for basic necessities when everything else has come to an abrupt halt.

Since the onset of this pandemic, the world's medical community, led by the World Health Organisation, has recommended everyone to wash hands with soap for 20 seconds multiple times a day. This is perhaps the most tenable instrument to fight the pandemic. But how can South Asia's urban poor do this if they have only six litres (or even less) of water a day?

When many of these people also have pre-existing health conditions, then who else on the planet can be more vulnerable to the risk?

This is not a reality that we can just ignore. As researchers working in the region on issues of water and development, we thought we needed to talk and discuss this critical challenge, explore what can be done and then share widely.

A panel of experts from the region came together online to discuss the water challenge of COVID-19 pandemic. Convened and moderated by Dr Hemant Ojha (Institute for Study and Development Worldwide, Australia), the panel included some of the finest urban water and governance researchers of the region:

- Professor Zubair Ahmad and Prof Bakhshal Lashari of Mehran University of Engineering and Technology, Jamshoro, Pakistan
- Associate Professor Soumyadip Chattopadhyay of VISVA BHARATI University, Santiniketan, India
- Mr Dipak Gyawali, former minister of water resources, academician, Nepal
- Ms Rachana Upadhaya, Researcher, Southasia Institute of Advanced Studies (SIAS), Kathmandu, Nepal

2. Problems

So what issues did the panel raise?

The panelists unanimously highlighted that the urban poor are at the highest risk of the COVID-pandemic themselves and are also involuntary carriers of virus to others in the region. The panelists brought insightful evidence to support this claim from their ongoing research. In the highly populated cities of South Asia, even the isolated well-off middle and upper-middle class families are bound to encounter poor, infected people, who are the mainstay of the informal economy servicing the well-off class. Panelists agreed that local as well as higher level governments are doing their best in all of these countries, but current efforts are far from adequate to contain the enormous scale of pandemic that has impacted the region. Several water-related issues affecting the COVID-19 response were highlighted:

Poor supply

- The actual level of water supply in some slum areas is as little as 3-6 litres per capita per day which makes a mockery of the proffered solution of washing hands with soap and water for a minimum of 20 seconds multiple times a day.

High costs

- The poor are forced to pay very high prices for water supplied by private tankers, whose business is booming everywhere (public distribution systems to deliver water as a public good is failing and poorly-regulated privatisation of water has made it even more unaffordable). As a result, the emerging market discriminates against the poor who cannot afford to pay high prices for the water.

No entitlement

- A large number of people living in undocumented slums are not entitled to get water from the public distribution system.
- Peri-urban regions in India are typically unserved by public water utilities.

Impact on physical distancing

- More people need to come out to public taps more frequently, which means it has become harder for people to honor the 1-2 metre physical distancing rule enforced to fight the pandemic.

Women and children affected disproportionately

- Women and children are forced to spend more time fetching water and doing disproportionately higher amount of household work (women's bodies have become an essential part of the water supply infrastructure as the public distribution system fails on the urban poor). Thus, there is more attention needed to the gendered aspect of water management.

Local government: they can do more

- The local government system is performing much less than what it could have delivered, partly because of a lack of policy support and partly because of its own institutional capacity. For example, in Indian cities, the planning and implementation of water supply schemes is sometimes done by state parastatals at the city level or the responsibility is split between the state and city governments. The onus for Operations and Maintenance generally lies with the city governments. Importantly, such functional devolution is not backed by powers to mobilise finance. No nodal agency is there to coordinate among these multiple agencies. In Nepal's case, a new federal structure has been put in place by the 2015 Constitution, putting three levels of governments in a state of chaos with regard to responsibilities and coordination on the pandemic response.

Technology: not a panacea

- Excessive focus on physical water infrastructure – such as drilling and dams/diversion technology – is not enough to maintain a sustainable and equitable management of water.

Green infrastructure ignored

- Unplanned urbanisation and attendant destruction/encroachment of wetlands and lakes further limit cities' ability to deal with water shortages.
- Water springs are drying the Himalayan areas, not so much because of climate change yet, but because of socio-economic drivers ranging from mis/overuse of pumping technology to filling up of traditional recharge ponds, changing cropping patterns from dryland agriculture to water intensive vegetable farming and changes in lifestyles.

Failing supply systems

- High leakage of water from public distribution system (as high as 70% of theft and

leakage) exists in many urban settlements but little attention is given to system effectiveness: the focus is still on civil engineering and new constructions.

- The urban water supply sector is characterised by low cost recovery. Water boards in India are able to recover only 30% to 35% of the cost.
- People are forced to extract water from contaminated sources, and there is a lack of water quality control mechanism. In Pakistan alone, 20 people per 100,000 die due to poor water quality.
- Illegal extraction of water from the water distribution lines create a vacuum pressure causing the system to fail to ensure proper distribution of water.
- Cities are supplying only a part of the total water need. For example, in Karachi, supply is about half of the total demand.
- During this lockdown period most of the industries are closed down and that excess amount of water was available but due to poor distribution system, that amount of water is unaccounted for.
- Most urban policies are plagued with a strong "sedentary bias" – where every citizen has to prove their domicile status in the city to be eligible for a wide range of urban basic services. A significant majority of the urban poor including migrants lack access to individual water connections which are based on (informal) house ownership and proof of domicile in the city itself.

3. Solutions

The panellists also proposed a number of solutions, most of which are reflected in emerging initiatives in the region itself. These are listed below:

Foster innovative partnership

- Neither the government alone nor the private sector can solve the problem of water scarcity and disproportionate distribution of pandemic risk– so new and innovative ways of government-community-private partnerships need to be developed

Use smart technologies

- Technologies have been left unutilised– for instance subsidising low-flow water sprinklers for irrigation.

Manage the water cycle

- Water and wastewater need to be integrated better in urban water management systems.
- Need to develop decentralised wastewater management systems with special emphasis on catering or reaching out to the unserved areas and reducing the cost of treatment, operation and maintenance costs.
- It is crucial to shift the focus from physical infrastructure to a more equitable management of water, including proper maintenance and regulation of the distribution network.

Protect water sources

- The first priority for cities when planning water supply should be the protection, restoration and recharge of their traditional waterbodies.
- Water system planning and water budgeting is the key entry point. State and city governments should consider water resource availability in the region while creating city plans. They should also restrict any development activities that are not sustainable in terms of water management.
- Rainwater harvesting at community scale should be promoted.

Strengthen what is working

- Regulate and subsidise private tanker water supply in the short run, before moving to more sustainable water supply system in the long run
- Create small water shops with government subsidies in partnership with small businesses delivering water

Give more role to local governments

- Empower and support local municipal governments to put more innovative measures in place such as community-managed water taps and tankers.
- Special attention should be accorded to institutional capacity building and infrastructure development for safe water supply, particularly in small cities and towns.
- There should a legal safeguard to ensure a minimum level of water entitlement for the urban poor.

Bring new ways of doing research

- Researchers have an important role but they need to take on a problem-solving approach.
- Lack of availability of reliable data is a serious issue and there is a need for inter-disciplinary research and policy-relevant database.
- More effective coordination mechanism between the government, community and research institutions are necessary.
- Spatial database needs to be developed for zones of different issues and challenges.

4. So what?

In the immediate period, everything possible needs to be done to ensure the urban poor get enough water to wash hands and reduce the pandemic risk. But even under the most optimistic scenario, it is next to impossible to supply enough water to everyone. This is a challenge to the global health community to develop new solutions that can work for the urban poor who have problems both with getting water and staying physically apart.

The panelists emphasised that the current lockdown period could be turned into an opportunity to pause, think, and re-think current water supply systems and underlying policies in the region. This pandemic is indeed a wakeup call to all planners, decision makers,

researchers, community leaders, and businesses. This is a 'forensic moment' to analyse the roots of the problems. The panelists are of the view that doing real-time research and bringing incremental solutions in the short run should be a priority for the research community. Researchers also need to reflect critically on their work and find ways to contribute better to the lives and livelihoods of South Asia's urban poor who represent the planet's largest case of social and economic disadvantage.

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Anusha Ojha copy edited this report.

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