

UNDERSTANDING THE UNPRECEDENTED URBAN FLOODING IN SRINAGAR

The Jammu and Kashmir floods of 2014 have illustrated the high urban risk through the catastrophic and unprecedented flooding of the capital city of Srinagar.

Srinagar is home to around 1.2 million people and grows by about nearly 30,000 people a year. This population is housed in the Jhelum river valley, on land that used to be the river's flood basin or wetlands.

As Srinagar recovers and rebuilds, these concerns must be addressed to ensure that the impact of such disasters can be reduced in the future.

9 POINTS TO CONSIDER FOR SRINAGAR'S RECOVERY

- 1 **SAFE RETURN:** Rapid assessment of neighbourhoods and homes to ensure that returning families will be safe; supported with repairs, retrofitting, reconstruction or relocation where necessary.
- 2 **CITIZENRY AT THE CENTRE:** A truly participatory recovery process; driven by local communities, anchored through citizen forums and schools, and facilitated by technical agencies.
- 3 **SECURE LIFELINE BUILDINGS:** Upgrading and retrofitting of lifeline buildings (hospitals, schools, police and fire stations and government offices) that also serve as evacuation centres.
- 4 **SAFE CITY PLAN:** Creation of a comprehensive master plan with a clear focus on reducing disaster risks and adapting to climate change through participatory mechanisms.
- 5 **RESILIENT INFRASTRUCTURE:** Full coverage of the city with water supply, drainage, covered sewerage and recycling-based waste management systems that are resistant to floods and earthquakes.
- 6 **EMERGENCY MANAGEMENT CAPACITY:** Creation of a disaster management plan for the city based on multi-hazard assessments; with a special focus on capacity building and retrofitting in peace time and communications and transportation during emergency.
- 7 **CONSERVING HERITAGE AND TRADITIONAL SKILLS:** Conservation and revival of natural heritage (including lakes and gardens) and built heritage (including vernacular buildings, tourism infrastructure and traditional crafts) as part of physical and economic planning.
- 8 **SLUM REDEVELOPMENT:** Redevelopment of the slum settlements (in-situ to the extent possible) to address vulnerabilities and integrate slums with the main city infrastructure.
- 9 **EDUCATION, TRAINING AND AWARENESS:** Education and training of local duty-bearers and volunteers (particularly the youth) and awareness of all residents on disaster risk reduction and emergency management.



55%

of the population in the city

does not have access to sewerage and drainage facilities

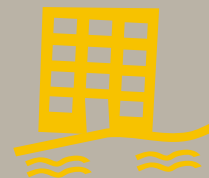
In remaining parts, sewage and storm water is drained through open canals called 'khuls', which are prone to choking by garbage and pose a health risk due to spread of raw sewage during floods.

60

 litres of water per person daily

is what the poor get as against the standard requirement of 135

Duration of piped water supply can be as low as 1 hour per day. Those not serviced by piped water supply depend on wells and springs, which are prone to contamination in a flood situation.



bahil

the local soil type

has low bearing capacity and poses risk of liquefaction

With many old and dilapidated buildings, the threat of building collapse in an earthquake is high; more so if the soil is saturated. (Srinagar falls in Seismic Zone V: a very high damage risk zone.)

40%

of the city's population



lives in slums that lack even the most basic infrastructural services

1 to 3m wide lanes make access difficult for emergency vehicles during response, evacuation or delivery of relief.