

# The expansion of settlements into floodprone areas

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## Context:

India's urban areas have been flooding more and more often, destroying lives and livelihoods. Yet, according to a study led by the World Bank and published in Nature recently, flood risk in many cities is rising because they are expanding into flood prone areas.

## How is India at risk?

1. India isn't among the 20 countries whose settlements are most exposed to flood hazards, but it was the third highest contributor to global settlements, after China and the U.S., and also third — after China and Vietnam — among countries with new settlements expanding into flood prone areas, all from 1985 to 2015.
2. India is at significant risk of flood related problems that could worsen in the coming years if the country wasn't careful. At the heart of flood related hazards is where we build or expand our cities.
3. For example, Bengaluru floods cost the city ₹225 crore. During the last century, the city's population grew from around 1.6 lakh to more than a crore. To accommodate these people, the city expanded — but new localities overlooked the local topography.

## Who are the most affected?

1. The risks are disproportionately higher for those living in informal structures. Informal housing in cities is on land that is vacant and less desirable, so that they are not immediately driven off. So they often lie in low lying, flood prone areas.
2. An important reason why urbanisation has expanded into flood prone areas is that we don't have the governance processes to say that this kind of development is environmentally unsustainable.
3. When environmental regulations are applied to new constructions, they are often applied only to big infrastructure projects and not to medium and small scale modifications of localities. This contradicts the notion that certain localities are more flood prone and that flooding and flood risk are locality level issues.
4. People commonly violate existing government regulations. For example, there has been a rise in ecotourism resorts on forest land and the construction of large structures, including government buildings and even religious structures, on rivers' floodplains.

## What is to be done?

1. As cities continue to expand, we can no longer avoid expanding into flood prone areas. Market forces tend to push expansion into flood prone areas. But recognising what these areas are and that we are actually expanding into them is the first step towards sustainable

urban planning that addresses the risks.

2. Some forms of adaptation are necessary and they need to differentiate between low income residents and unauthorised structures erected for the elite.
3. Every city needs to do a proper scientific mapping of the flood prone areas. Urban governments need to make housing in such areas more flood resilient and protect low income housing.

**Conclusion:**

Moving habitations from low lying, flood prone areas to higher grounds, regulating them, and building ecologically and economically sustainable houses for the poor will contribute towards sustainable development goal number 11, ie, sustainable cities and communities.



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