

## **Urban Floods and Public Health**

### **Concept Note**

Floods are the natural phenomenon. They occur every year and in many parts of India. With rapid urbanization, urban floods have become a part of our lives. The Chennai floods opened our eyes and made us realize about the facts that unplanned development often ignores environmental sustainability. Chennai floods were said to be the result of unplanned, disorganized and illegal development which resulted in construction of buildings and towers on wetlands and water bodies. Heavy rains made the condition of these areas more vulnerable. It submerged the whole city; however, this situation does not exist only in Chennai but in many urban centres of India. Mumbai floods (2005), Chennai floods (2015), Kashmir Floods (2015), Gurugram floods (2016) and Delhi urban flooding (2016) have been some of the recent cases of flooding that opens many facets to Disaster risk reduction.

Lucknow, the capital of Uttar Pradesh, like many other cities in India fights with the problem of urban floods. This has been a recurring phenomenon. In 2008, when Gomti river entered the low lying areas of Lucknow, it created the situation of semi-urban floods whereby many localities were under threat. Trans-Gomti areas like Aliganj, Daliganj, Aminabad, Janakipuram, Vikaskhand, Nirala Nagar, etc were the areas where urban flooding became a recurring phenomenon. The site of our investigation is Lucknow District which has experienced number of floods in its past and is continuing to reel under this disaster. The improper drainage system with the dumping of garbage into the canals have been some of the main reasons for urban flooding which later lead to health hazards. Urban flooding and Public health is not only a matter of concern for the government but also for the community. Though Public Health sector in India is largely under state Government as a matter of public policy and governance, the onus is also on the private sector towards the mitigation that leads to the problem.

Urban floods do not come alone as they can be the cause of epidemics. Some of the causes for Urban Floods can be traced to the decreased capacity of the wetlands in the area, due to excessive filling up and construction activities. Hence, excessive overland flow, encroachments on river

banks, floodplains and river beds and unscientific and illegal mining of sand cause flooding in the river and allied areas. Large amount of dumping of solid waste into the river can also cause urban floods. Due to these activities, many of the rivers in our country are changing course and drying

The floods cause infrastructural breakdown, failure of power supply and absence of clean drinking water which are serious health hazards. This problem gets aggravated for the community living in poor socio economic conditions. There are increased cases of diarrhea (including cholera and dysentery), respiratory infections, hepatitis A and E, typhoid fever, leptospirosis, and vector borne diseases. Inadequate availability of food and interruption in the PDS lead to malnutrition, especially amongst the women, children and senior citizens in such communities.

**JNU-NIDM DRP** in its series of workshops on community resilience and disaster risk reduction has been taking up subjects for detailed discussions with all stakeholders. As a part of this series, the next workshop focuses on the subject of Urban Flooding and Public Health to be organized in collaboration with Baba Bhimrao Ambedkar University Lucknow and UPSDMA in October 2016. The workshop aims to get together policy makers, administrators working in the field, academicians, researchers, local bodies, health officials, CBOs and other concerned stakeholders to discuss the issues and identify solutions to the problems.

### **Tentative Sessions:**

#### **I- Institutional Preparedness:**

This session would be to understand the working of departmental institutions like PRIs, Railways, Defense, Civil defense and others in the situations of disasters and their preparedness. eg: Action taken for Pre- monsoon preparedness by the above institutions, availability of vaccines and medicines, training of public health staff, etc.

#### **II- Infrastructural Preparedness:**

This session would focus on to understand the erosion of basic infrastructural needs and preparedness of the state and the community to deal with disasters like situations.

Looking into matters of Public land and public water bodies. Protection of common property, transportation of portable water and sanitation are some areas of discussion.

**III- Public Health & Consequence:**

This session would look into the matters and concern of public health in a situation of flood. Looking at various kinds of vector borne diseases and rise of epidemics. Also looking into the functioning and working of public health institutions. Public Health and its impact:

This session would look into the matters and concern of public health in a situation of flood. Looking at various kinds of vector borne diseases and rise of epidemics and emergence of new diseases, recurrences of some diseases. Looking into the functioning and working of health institutions in the public and private sector. Functioning of PHCs, availability of trained staff and Doctors, generating awareness amongst the public, need for preventive measures etc.

**IV- Learning from the past and adopting best practices:**

Example: Brihan Mumbai, Chennai Floods, Gurugram and Kolkata

**V Way forward:**

1. Improved Infrastructure;
2. Trained and alert staff;
3. Engagement by the Private sector.
4. Changing mindset, living habits and way of life