

PREFACE

According to an analysis by CEEW, 75% of Indian districts are extreme event hotspots. Moreover, the frequency and intensity of extreme events are significantly increasing over the last 5 decades. Flooding is a recurrent hazard in east Gangetic plains, largely on account of natural factors that pose risks to life and property. Brahmaputra rivers draining parts of Assam causes substantial flooding owing to higher rainfall. This comprehensive assessment was carried out using sentinel, MODIS and IMD data.

Moreover, this study uses openly available landuse and infrastructure datasets to identify some of the critical infrastructures underlying the inundation areas. This can be used for designing effective decision making tools by integrating the rainfall datasets as this study has done.

An increase in population is likely to result in more people settling in areas vulnerable to flooding. An increase in floods is likely to influence prevalence of waterrelated diseases and contaminate water sources whereas, the insufficient water for hygiene purposes during dry periods is likely to increase the risk of waterwashed diseases. Given the projected changes in precipitation, it is likely that there is going to be serious costs for communities and sectors here.

In view of the above, there is an urgent need for actions to assist communities and dependent sectors to adapt.