

Consultancy Services for Flood Risk Assessment in Industrial Areas

Are you in the process of establishing a new industry or running an existing industrial setup? Have you been concerned about your industry's possible flooding or measures to be implemented to safeguard it from future flood events? Due to an increasing trend of short and high-intensity rainfall events in the country, there have been various instances of flooding in industrial areas resulting in huge losses.

Building a flood-proof infrastructure is the need of the time to avert unprecedented losses from a sudden flood. Do you have an idea of the flood risk to your industry? Have you ever thought that as small as a half-meter increase in the plinth level may alleviate the entire flood risk?

In such a scenario, it becomes imperative to have an understanding of flood risk in your location. This information will drive your crucial construction decisions related to the plinth level height, angle, and direction of slope, ensuring an efficient drainage system that recedes excess stormwater in minimum time. We are experts in flood risk assessment and can provide you with the right information to understand these micro-level specifics for your industry and build essential safety barriers against the flood.

RMSI Solutions

RMSI builds customized flood risk solutions based on current and future climate change scenarios for any type of industry.

RMSI has extensive experience of working with the government agencies (Central Water Commission, National Disaster Management Authority, and State Water Resources Departments), private establishments, and international funding organizations such as the World Bank, Asian Development Bank (ADB), United Nations Office for Disaster Risk Reduction (UNDRR), United Nations Development Programme (UNDP), African Development Bank (AFDB), etc. engaged in flood hazard-risk assessment and mitigation planning across the globe.

We provide technical and consulting services for flood risk assessment and mitigation planning for industries in India. Our experts adopt an integrated approach using the latest flood simulation techniques to develop reliable and cost-effective solutions within a turnaround period of 3-4 weeks.

A suitable flood mitigation solution for all types of industry within 4 weeks:

- Designing plinth level of building and optimal embankments for site
- Designing an efficient storm water drainage system
- Minimizing flood risk with uninterrupted operations
- Negotiating a better premium for insurance coverage
- Minimizing structural loss with cost-effective solutions

OUTPUTS



Intensity – duration – frequency (IDF) curves provides expected rainfall intensity on the project site with different return periods



Maximum flood scenario is generated using hypetograph derived from Intensity duration - frequency (IDF) curves



Understand flood risk through the flood inundation map generated using rainfall intensities and topographical features of the project area

SUCCESS STORY

Flood Inundation Modeling for an Aquaculture Plant, Gujarat (India)

As Surat is a flood-prone region, the client wanted to understand the flood inundation depth before constructing the aquaculture plant. Further, they also wanted to adopt suitable mitigation measures to minimize impact of flood hazard. RMSI was commissioned to conduct a comprehensive review of survey data of plots, industrial area, and storm water drainage system. A hydrological and hydraulic model was developed to estimate inundation depth for various return periods. Hence, flood inundation maps were created and our experts recommended strategic flood mitigation measures.



"RMSI has knowledgeable, experienced and efficient flood modelling experts who delivered quality outputs within stipulated time period of 4 weeks." - Pankaj Raut, Project Manager

Other Key Projects in India

- Flood Hazard Risk and Vulnerability Analysis for the City of Visakhapatnam and Vijayawada (Andhra Pradesh); City of Bhubaneswar and Cuttack (Odisha); City of Shillong (Meghalaya) - UNDP (India)
- Flood Hazard Risk Assessment, Andhra Pradesh (India) Project Management Unit, Andhra Pradesh Disaster Recovery Project
- Cyclone induced Flood Hazard, Risk and Vulnerability Assessment for 13 Coastal States in India National Disaster Management Authority (NDMA), India
- Flood Hazard Risk Assessment, Jammu and Kashmir (India) Disaster Management, Relief, Rehabilitation and Reconstruction Department, Government of Jammu and Kashmir
- Panchayat Samiti Level Action Plan for Integration of Disaster Risk Reduction and Climate Change Adaptation into Ongoing Development Scheme in 30 Panchayat Samitis of Himachal Pradesh - UNDP (India)





