



TEAM REACT



# CITY PREPAREDNESS MONITORING AND EMERGENCY RESPONSE



# CONTEXT



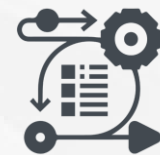
**440 Crores**



**13 Lakhs**



**INR 5,91,680 Crores**



**Response -  
Rehabilitation Centric**

# ISSUES IDENTIFIED



Lack of Data Updation



Data in Silos



Micro-Level Analysis



Lack of Spatial Understanding of Urban Risk and Resilience



Lack of Targeted Emergency Response



Lack of Digital Interventions

The proposed solution in the form of a toolkit is focused on “**City Preparedness Monitoring and Emergency Response**”.





# THE PILOT CITY

## SHIMLA, HIMACHAL PRADESH

# SHIMLA SMART CITY

The project in conjunction with the Shimla Smart City Ltd, Shimla Municipal Corporation, District Disaster Management Authority and Fire Service Department of Shimla.



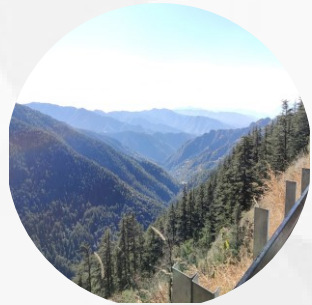
Old and unsafe buildings



Heaters/Firewood



Tangled electric wires



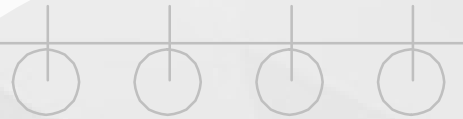
Dense vegetation



Congested construction



Wooden structures



## PROJECT FOCUS

*Urban Fire Hazards*

*196 Incidents*

*4,79,45,209 INR*

*Since 2016-20*



# PROJECT IDEATION

01

Automated  
Risk  
Information  
System

02

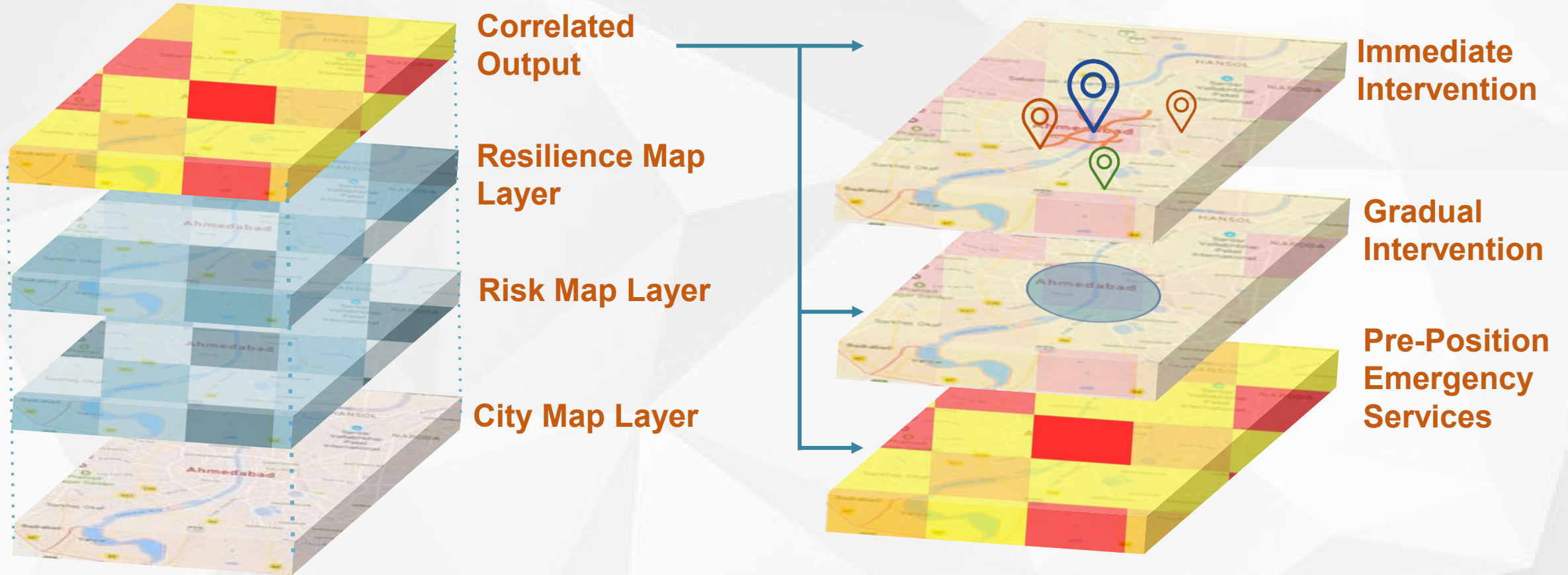
Citizen-Centric  
Resilience  
Measuring  
System

03

Integrated  
Urban  
Emergency  
Response  
Systems

**CITY PREPAREDNESS MONITORING &  
EMERGENCY RESPONSE TOOL**

# IDEA OF THE TOOL





A circular inset image showing a train traveling through a forested mountain landscape. The train consists of a locomotive and several passenger cars. The locomotive is white with black accents and has the number '718' and 'DM3' visible on its front. The train is moving along a track that curves through a dense forest of tall, thin trees. The background shows a hazy, mountainous landscape. The text 'PROJECT DEVELOPMENT' is overlaid in white, bold, sans-serif font across the center of the circular image.

# PROJECT DEVELOPMENT



Established 1904  
BINDRA  
ARTS & PHO



# STEPS TAKEN



**Project  
Formulation**



**Deployment**



**Project Discussion  
with SSCL**



**Liaising &  
Stakeholder Meeting**



**Data  
Collection**



**Data  
Analysis**



**Product  
Development**

# ENGAGEMENTS MADE



SSCL



Shimla MC



DDMA



HFS



TCPO Shimla



Directorate HP



SJPNL



HPSEBL



HFWD



HP DIT



AGISAC



DOERS



# CHALLENGES FACED

## 1. COVID-19

Delayed deployment & data procurement due to the pandemic.

## 2. Data in Silos

Administrative delays and lack of interdepartmental data sharing.

## 3. Lack of Digital Governance & Digital Data

High dependence on paper work and physical documentation.

## 4. Absence of PMC and ICCC

Product developers and onboarding onto ICCC issues

## 5. Interdepartmental Coordination

Delays in acquiring and processing data.

## 6. Data Standardization

Different scale & unit of mapping of data fetched from different departments




# REACT

PREPARE. MONITOR. RESPOND



# TOOL UTILISATION





# PROJECT CRITIQUE



# LACUNAE & SOLUTIONS

## 'Ward' as the Micro-level Unit for Analysis



Due to time & data constraints, Micro-Zonation was not attempted.



The project is to be combined with ongoing micro-mapping project of the pilot city.

## City & Ward Profile



The project is unable to consider updated SMC area. 25/34 wards have been considered for the project.



City SPV and MC have been proposed to create a common GIS platform for marking and updating the maps to reduce the data mismatch in future.

## Inconsistent and Non-Standardized Data Sets



Lack of updated data on disability, present demography, building conditions etc..



The Smart City and other beneficiaries are requested to update & standardize the unavailable/ uncollected data through DIT, HP in future..

# LACUNAE & SOLUTIONS

## Weightage Analysis & Scores Validation



Weightage analysis & scores are subjective to perception of the team carrying out the analysis



The weightages & scores can be fixed and described with context to the stakeholders.

Expert consultation required to set up benchmarks.

## "Simulation" part of the product



Simulation part of the product doesn't ensure on-ground solutions



The simulation part of the project represents solutions to be made and marked.

## Community Engagement

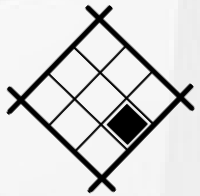


Absence of Community Engagement at this phase due to time constraint & limited resources



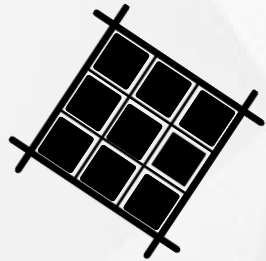
A component to engage community has been proposed in the Probable phase II of the project.

# SCALABILITY



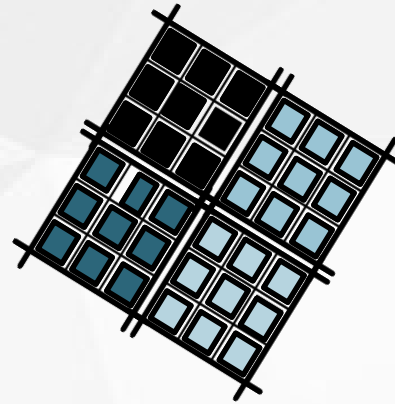
## 1. Micro Level

- Neighbourhood
- Cluster
- Society



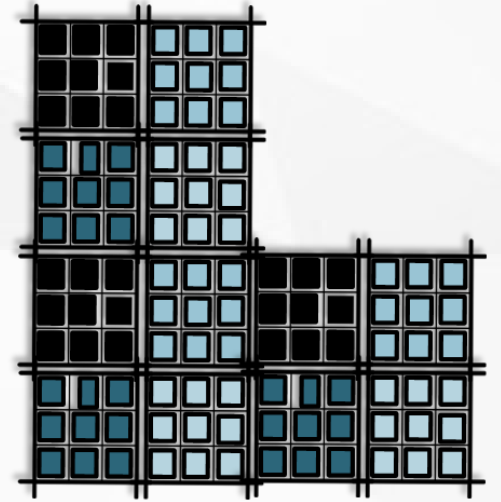
## 2. Meso Level

- Ward
- Zones
- Blocks



## 3. Macro Level

- Smart City
- District
- State





# REPLICABILITY

Across  
Communities

Across  
Hazards

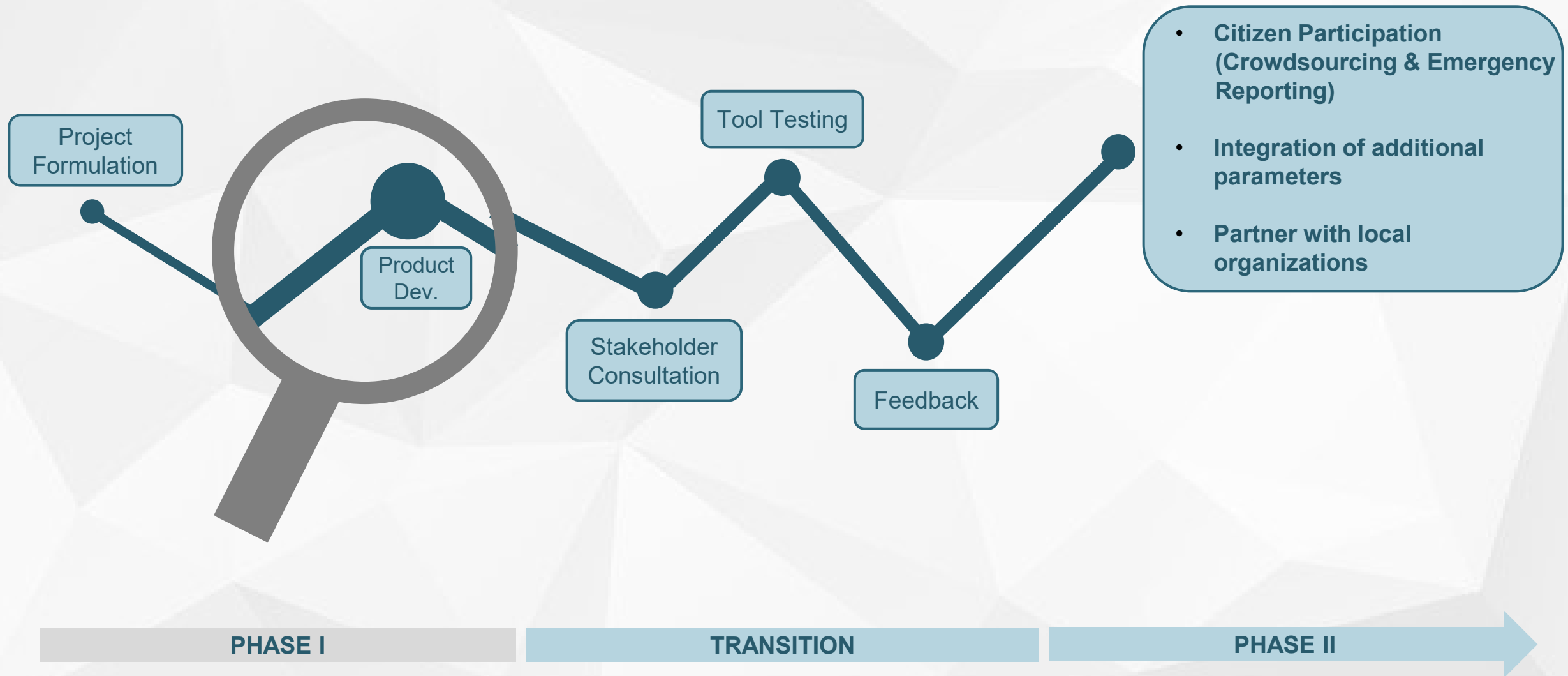
Across  
Geographies



A nighttime photograph of a cityscape, likely San Francisco, featuring a prominent church tower with a steeple on a hillside. The scene is illuminated by streetlights and building lights, creating a warm glow against the dark sky. The image is framed by a large, semi-transparent blue circle. The text "PROJECT PHASE II" is overlaid in the center of the circle in a bold, white, sans-serif font.

**PROJECT  
PHASE II**

# PHASE II





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## MENTORS

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**Dr. Anshu Sharma**  
Co-Founder, Seeds  
India



**Dr. Umamaheshwaran  
Rajasekar**  
Chair, Urban Resilience, NIUA

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## THE TEAM

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**Ankur Negi**  
*DM Professional*



**Ipsita Chanda**  
*Geographer-Planner*



**Sai Varsha Akavarapu**  
*Urban Planner*



**Shikha Singh**  
*Architect-Environmental Planner*



**THANK YOU!**