From Local Knowledge to Digital Action:
Sirajganj Municipality's Community-Based Disaster Management

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Key message:

Sirajganj is strengthening urban resilience by connecting communities, municipal institutions and technology to identify risks, co-create solutions and drive local action.

Why Sirajganj Municipality adopted a Community-Based Smart Approach?

Key Urban Risks

- Urban flooding and waterlogging
- Drainage congestion and monsoon-related disruption
- Extreme heat and heat stress
- Solid waste accumulation and blocked drainage
- Limited access to timely municipal information and services
- Pressure on urban infrastructure and public spaces

The Challenge

Disaster resilience is not only about infrastructure- it is about people, information, coordination and timely action.

Our Approach: Risk Information ✦ Community Participation ✦ Smart Technology ✦ Municipal Coordination

Our Community-Based Smart Disaster Management System

COMMUNITY

- Risk identification, Citizen reporting, Local knowledge, Community action

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DIGITAL PLATFORM

- GIS, Data collection, Risk mapping, Service requests, Information sharing

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MUNICIPALITY

- Assessment, Coordination, Decision-making, Response, Resource allocation

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ACTION

- Drainage & waste management, Heat protection, Infrastructure maintenance, Emergency information

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COMMUNITY FEEDBACK

- Monitoring, Feedback, Learning, Improvement

From Local Risk Knowledge to Municipal Action:

Apply/Design Thinking/ Innovation Lab Approach

Citizen identify risks → Co-design → Test → Learn → Scale

Example:

- Smart Municipal Service Automation
- GIS-based Integrated Municipal Service System (IMSS)
- Bioswell solutions
- Cooling hub & resting places

Key message: Technology is used as an enabler-not as the starting point.

Connecting Technology with Community Action

Examples of Integrated Community-Based Solutions

1. Bioswell / Groundwater Recharge

- Community-level climate adaptation
- Rainwater infiltration and water management
- Local participation in operation and maintenance

2. Cooling Hub & Resting Spaces

- Protection from extreme heat
- Inclusive public space for vulnerable groups
- Potential integration with awareness and emergency information

3. Service Automation and Smart Waste Management

- Better service information
- Reduced waste accumulation
- Supports cleaner drainage and healthier urban environments

Core principle:

“Smart city” means a city that is smarter at listening, responding and working together.

Partnership, Learning & Way Forward

A One Collaborative Model

COMMUNITY- Citizens • Youth • Local Leaders

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MUNICIPALITY- Planning • Services • Coordination

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PARTNERS- Civil Society • Private Sector • GIZ/LGED

Way Forward

➤ Embed community participation
➤ Integrate pilots into municipal systems
➤ Use GIS & data for decisions
➤ Clarify stakeholder roles
➤ **Scale: Pilot → Ward → City**

Closing Message: Resilient cities are built when communities, institutions and technology work together.

THANK YOU ALL