

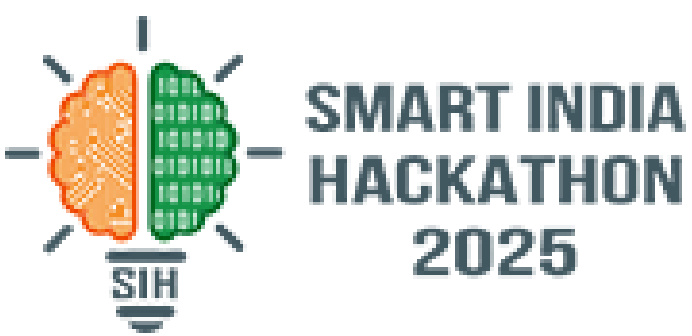
## TITLE PAGE

- Problem Statement ID – PS1
- Problem Statement Title- Smart Community Health Monitoring and Early Monitoring System for Water Borne Diseases
- Theme- Healthtech
- PS Category- Software
- Team ID-
- Team Name (Registered on portal)- Aerospace



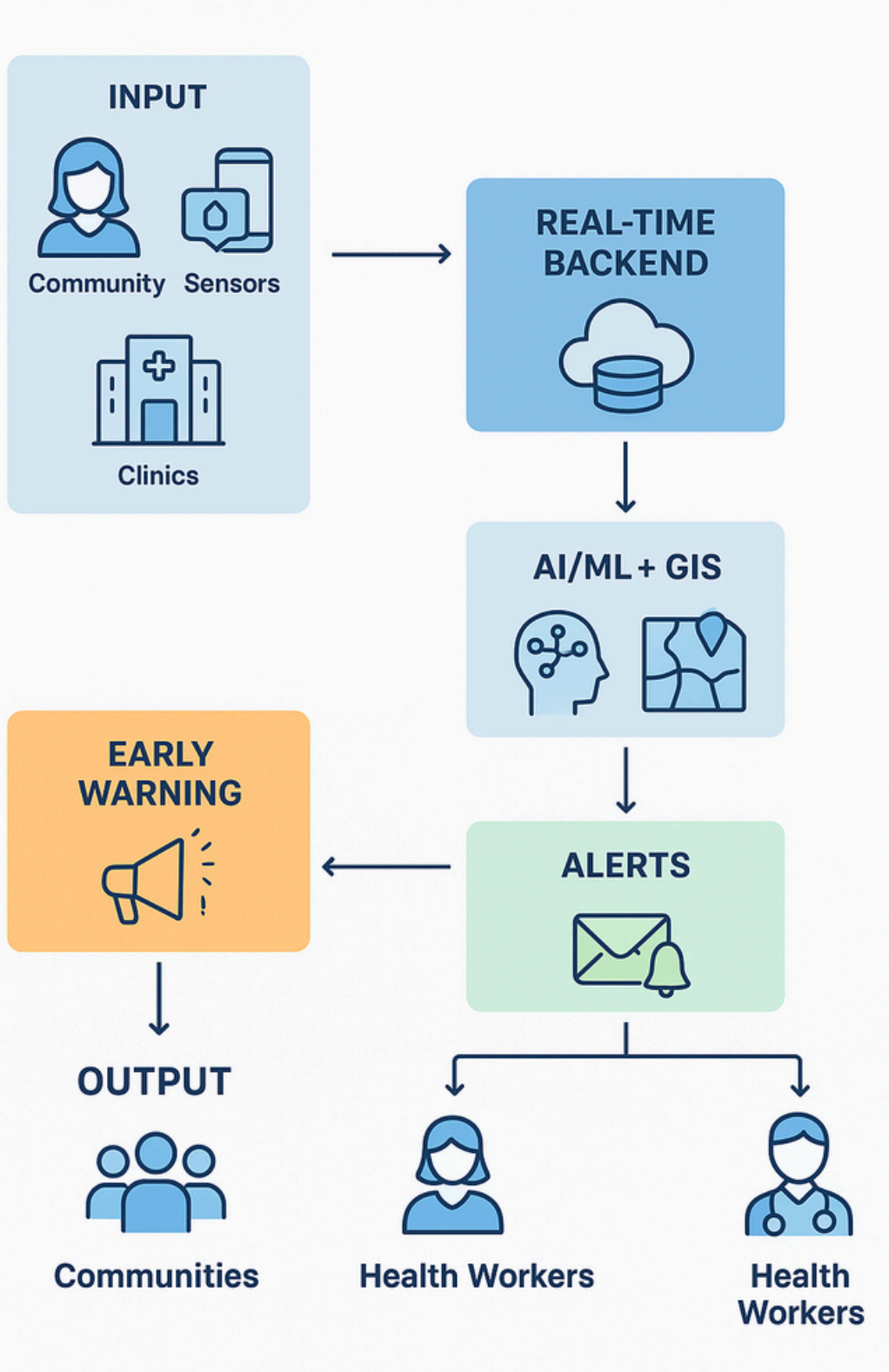


# IDEA TITLE



IDEA???

**Develop a Smart System that uses digital technology, data analytics, and real-time monitoring to detect predict, and prevent outbreaks of water-borne diseases especially in rural and underserved areas.**



**How is our problem addressed???**

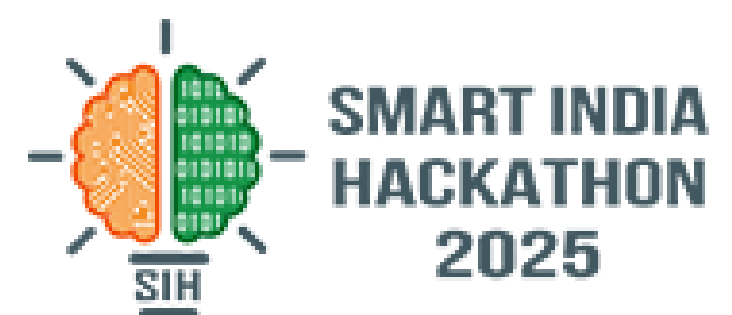
- 1. Easy detection of risks
- 2. Bridging data gaps
- 3. Predictive forecasting
- 4. Faster response time
- 5. Community awareness and empowerment
- 6. Efficient resource allocation
- 7. Scalability and sustainability

**And how is our solution unique???**

The uniqueness lies in its integration of health + environment data, real-time AI-driven predictions, GIS mapping, two-way community participation, and low-tech inclusivity - something rarely combined in one solution.



# TECHNICAL APPROACH



*"Integrating science and technology to fight water borne diseases"*

## Web Application:

**Dashboard-** Gives user a quick overview of the current water quality and community health status.

**Data entry-** Allows health workers, community members or users to record cases of illness and water sample details.

**Water quality-** Displays analyzed water parameters such as Ph, turbidity and contamination indicators.

**Alerts-** Sends timely notification about unsafe water conditions, high contamination levels or possible outbreak risks.

🔍 <https://health-pool.tiiny.site/> ✕

The app is connected to a central website, which collects and organise the incoming data.

A live poll/analytic system on the website calculates the risk index, showing how vulnerable a community is at given time

## How it works together???

### *Our Ecosystem~*

- Field data is entered through the app
- Water quality matrices are analyzed and sent to the website
- The website process the information and generates the risk score and alert
- Users and authorities can then take a preventive action against water borne diseases

## Feasibility

VS

## Challenges

## Solutions



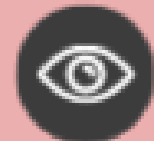
Increase in smartphone penetration in rural areas

01

Advanced microbiological testing still requires lab reports



Use low cost IoT sensors + rapid test kits that can sync with the app



Can provide early warnings and connect to Healthcare providers

02

Digital literacy gaps, poor connectivity



Design simple UI with icons/audio  
Add offline data storage with auto sync



Helps create community awareness about hygiene

03

Traditional beliefs or mistrust in technology could reduce adoption

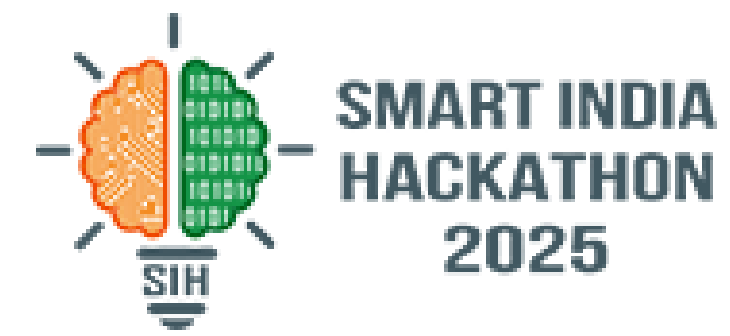


Partner with local leaders and health workers to build trust





# IMPACT AND BENEFITS



## Community members

- Early protection
- Awareness and education
- Empowerment
- Health and economic benefits

## Healthcare workers

- Faster response
- Workload management
- Decision support

## Government and policy makers

- Data driven decisions
- Efficient resource allocation
- Policy impact

## NGOs

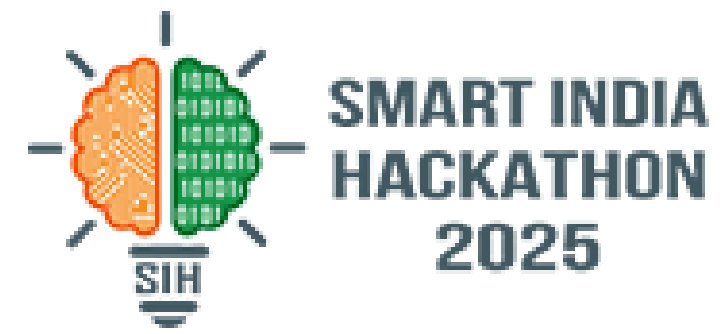
- Stronger outreach
- Impact measurement
- Funding justification

## Researchers and academia

- Rich data source
- Innovation platform



# RESEARCH AND REFERENCES



- [ripublication.com](https://ripublication.com)
- [files.givewell.org](https://files.givewell.org)
- Researchers Gate