

# Topic- Preparing of Water & Sanitation Safety Plan for Brahmandiha Gram Panchayat OF Bankura District in West Bengal

**Presented by: SIGMA Foundation, Kolkata**  
**Date :12.08. 2021**





# ABOUT SIGMA FOUNDATION

- ❖ Support for Improvement of Governance and Monitoring Advancement Foundation (SIGMA Foundation) works in **multidisciplinary arena of socio-economic sector specialized in monitoring and governance**. SIGMA Foundation has its headquarter in Kolkata and a branch office in Maharashtra. It is working in **11 states** across the country and has prominent international presence.



- ❖ The organization is led by **Dr. M. N. Roy** and his team consists of experts from various disciplines Social Scientists (Economics. Sociology), Earth Scientists (Geography, Geology, Environment science), Engineers (civil, chemical, environmental, electronics), Public health specialists (Nutrition, Population sciences) Statisticians, Remote sensing and Communication experts. SIGMA has an enthusiastic team of field officers and community mobilizers to roll out the programs at grassroot level. Our multidisciplinary facets of service delivery are **Monitoring and Evaluation in WASH, water quality monitoring & surveillance, waste management, environment management, child right, urban & rural governance, behavior change communication, capacity building, poverty eradication and livelihood development.**

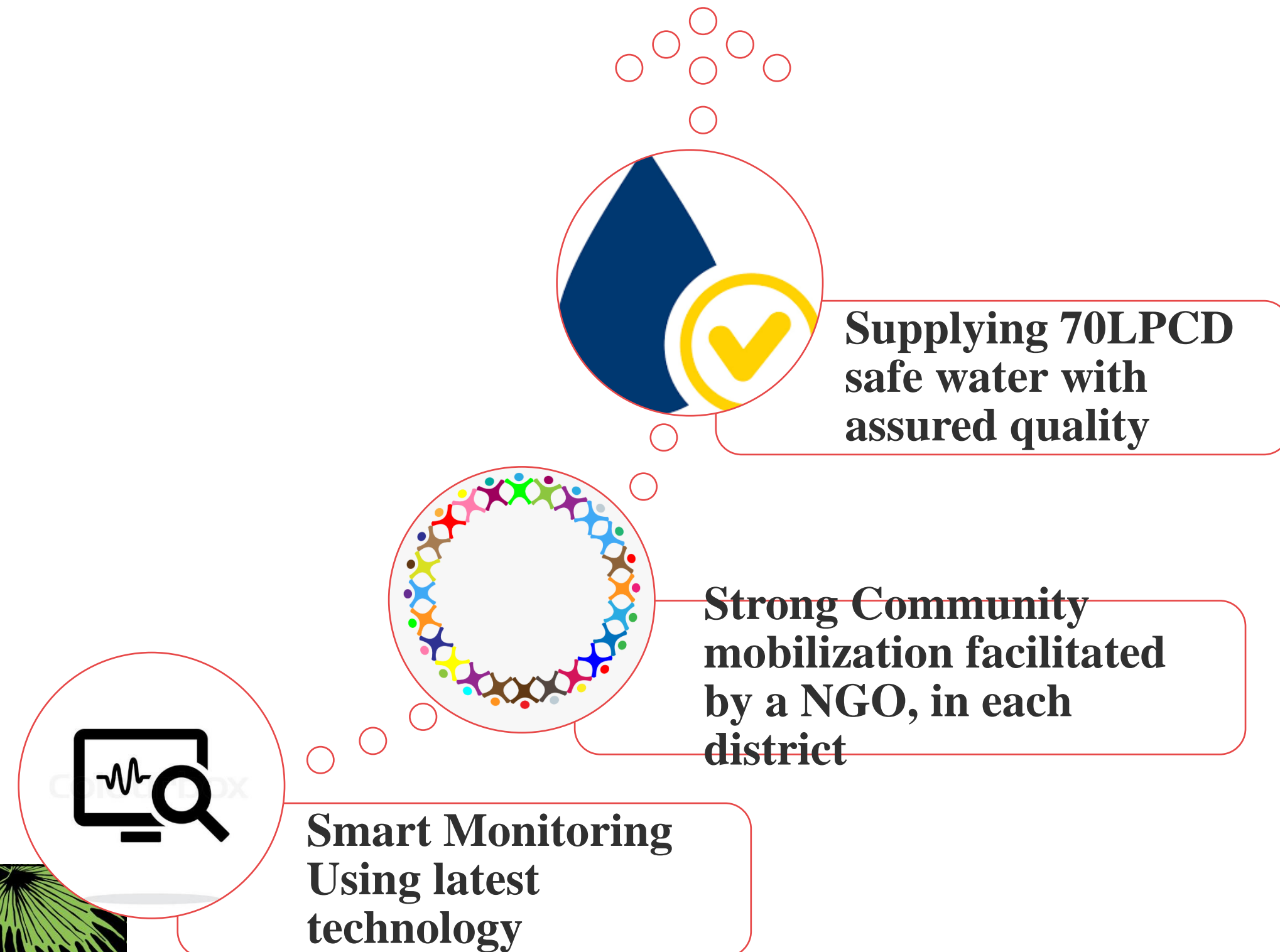
# TRAININGS UNDERTAKEN BY SIGMA FOUNDATION FROM CSE

Serial No.	Training Course	No. of Persons undertook training	Duration
1.	<b>“Preparation of Water &amp; Sanitation Safety Plan”</b> by School of Water and Waste, Centre for Science & Environment (CSE), New Delhi in association with Asian Development Bank (ADB).	4	<b>Online Course:</b> from 7 <sup>th</sup> August to 29 <sup>th</sup> September 2020.
2.	<b>“Basics of Decentralized Waste Water Treatment and Local Reuse”</b> by School of Water and Waste, Centre for Science & Environment (CSE)	2	<b>Online Course:</b> 17 <sup>th</sup> Dec 2020 – 15 <sup>th</sup> January 2021



**THE PROJECT:** A 24X7 piped water supply project is under implementation to benefit **1.65 million** people in **66 GPs in 3 districts** of West Bengal which require putting in place Water and Sanitation Safety Plan (WSSP) in each GP. The project is being implemented by WBDWSIP and is financed by ADB

### Salient features of the project



- With the **Drinking-Water Safety** guidelines being prepared by ADB for the entire State of West Bengal, **separate WSSPs are required to be prepared for the GPs** with assistance by the respective NGOs engaged in the three project districts one of which is Bankura
- **Centre for Science & Environment (CSE), New Delhi** was engaged by ADB to provide technical support through distance learning mode by organizing a six-week long training to the team consisting of representatives of the pilot GPs and the NGOs.
- After completion of the training, **SIGMA Foundation** facilitated the preparation of the WSSP for **Brahmandiha GP** of Bankura District which is the **First Rural WSSP** in our country.



# GREY AREAS IDENTIFIED IN BRAHMANDIHA GP



- High **Disease Burden** due to unsafe water and unhygienic sanitation practices
- **Lack of adequate water** due to the presence of aquifer with low water bearing potential
- **Lack of awareness** among the community and low demand for water safety.

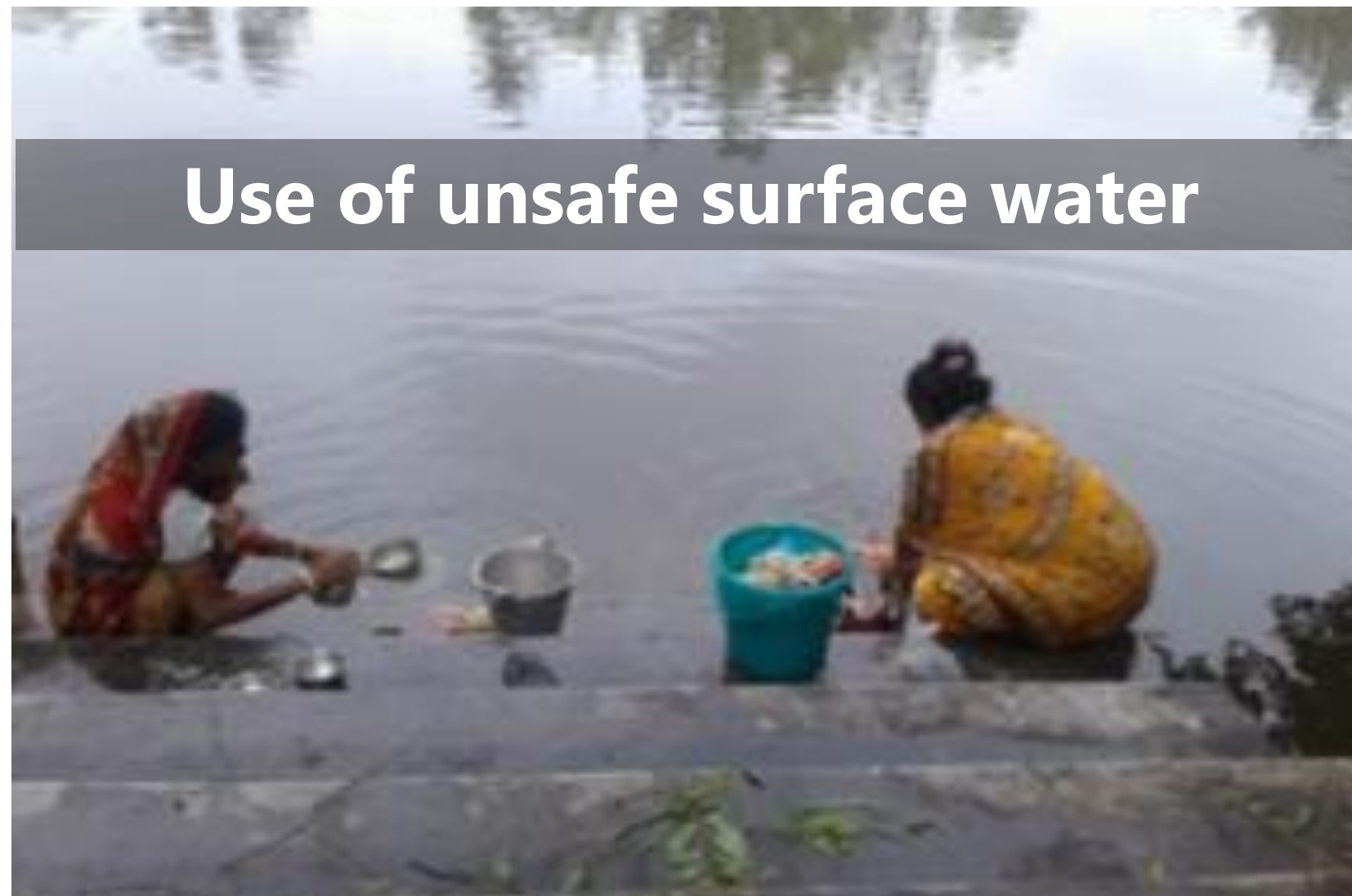
**Diseases Prevalence:**  
**Diarrhoea, JE/AES, Malaria,**  
**Dengue, RTI, skin diseases**





# GREY AREAS IDENTIFIED IN BRAHMANDIHA GP

**Use of unsafe surface water**



**Poor sanitary practices: the outlet of septic tank left in open**



**Lack of Liquid Waste Management: water found stagnant near water source**

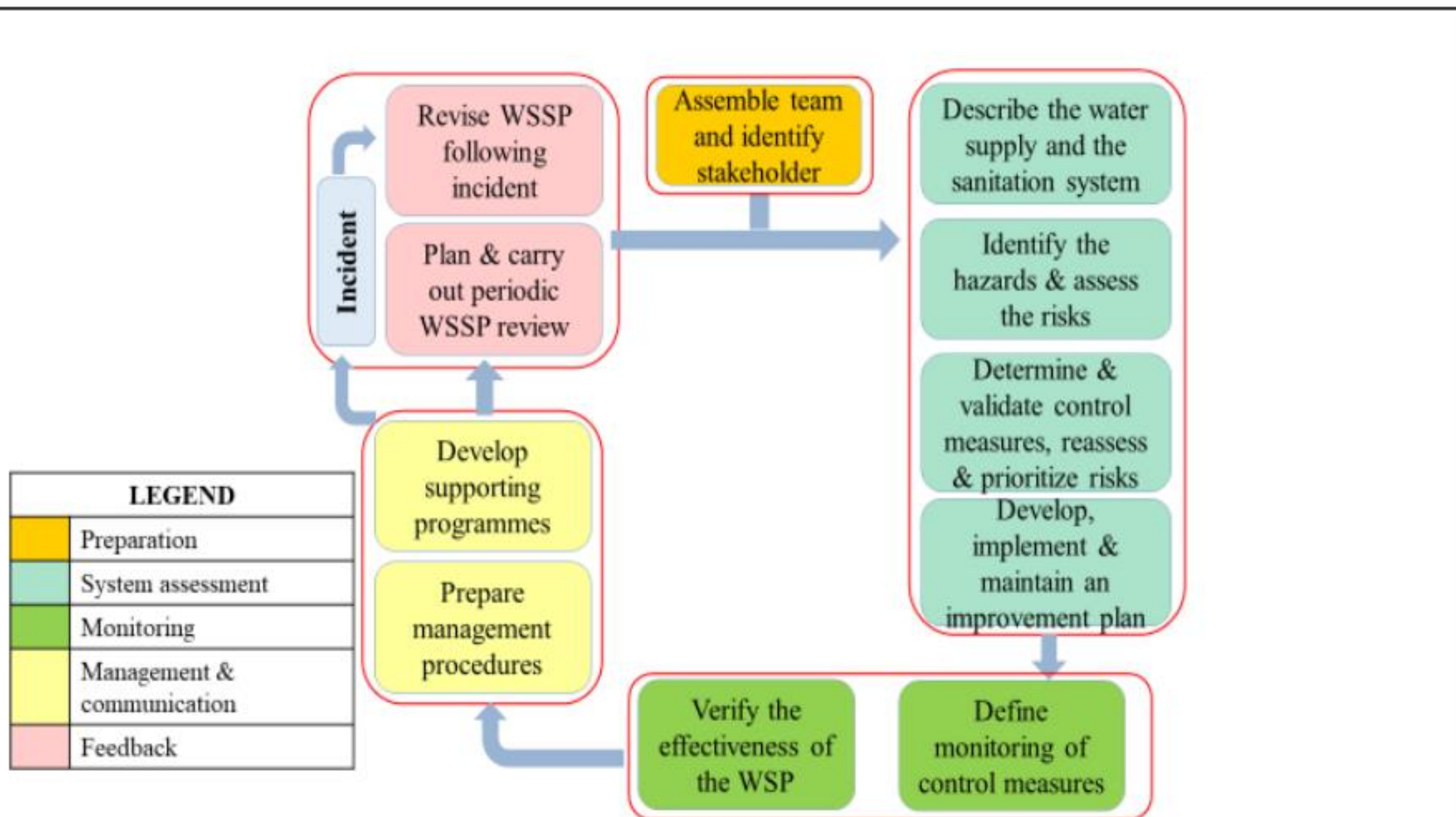


**Lack of Solid Waste Management: Solid waste dumped by roadside**





# PROJECT PROCESS: “5” Fold Process for the Preparation of WSSP



## PREPARATION & ASSESSMENT PHASE FOR THE WSSP

- The priority areas were established with defined **Objectives & Indicators for Monitoring**
- The Boundary of the WSSP was defined
- The Team was assembled and the members were trained by those **who took training from CSE**
- Stakeholders were identified for required support and the community was made aware

- ✓ **Assessment of Existing System of Water and Sanitation was done by mapping the facilities and a spatial map of the GP was prepared for visualization of the possible hazards around the same**
- ✓ **The type of hazards was identified and relevant data was collected through primary and secondary research.**
- ✓ **More than 3000 HHs were surveyed using an Android-Run Application and the data was analysed for assessing various hazards**

**Health Risk of all the potential hazards was assessed **using template of CSE** across the value chain of water supply from source to mouth and covering all aspects of insanitary condition**



# ASSESSMENT OF HAZARDS AND RISK SCORES

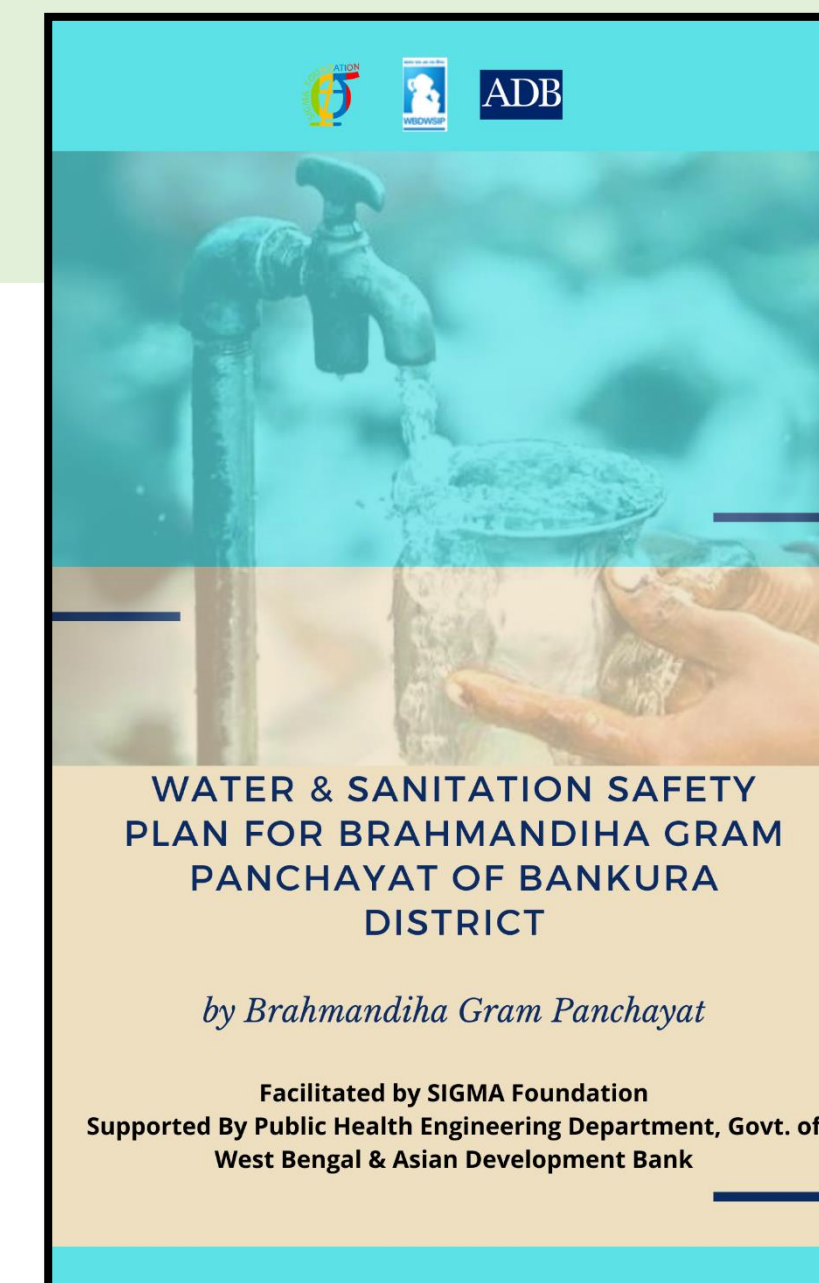
- Risk assessment was carried out using a **Risk Score matrix** which depended on two parameters – (i) **Frequency of occurrence of the hazards** and (ii) **Severity of the impact on public health**.
- **32 Hazardous events** (11 associated with water and 18 associated with sanitation) were identified of which risk score of one event was low & ignored. The risk score of 1 event was very high, that of 20 events was high and the score of the remaining 9 events was medium
- **27 Control Measures** were identified to be put in place to reduce the risks
- **SOP** for each control measure was worked out to standardise the measures to be taken
- **The plan included: Events to be controlled & the risk score → Control measures to be taken → Responsibility → Funding → Time Frame**
- Support activities needed (**IEC/SBCC, Capacity Building**) were also planned



# MONITORING PHASE

- Effectiveness of the plan is to be judged by **8 objective indicators**.
- Incidence of diseases (waterborne)
- Measures taken for protection of water source as per plan
- Monitoring water quality
- Access to sanitation
- Upgradation of toilet infrastructure for improved FSM
- Progress of SWM
- Progress of LWM
- Share of budgeted amount spent
- ❖ Some of the outputs were to be automatically captured using Smart Water Management to be built into the water supply system
- ❖ System of review for course correction and independent audit of the system





Website Link of the Project:

<https://wbdwsip.org/>

WSSP Publication Link:

<http://wbdwsipmis.wbphed.gov.in/jfprBankura.aspx>

News Coverage of WSSP Publication Launch on SIGMA Foundation's official Website and Official Facebook Page

<http://sigma.foundation/blog/>

<https://www.facebook.com/SciencetoSERVE>



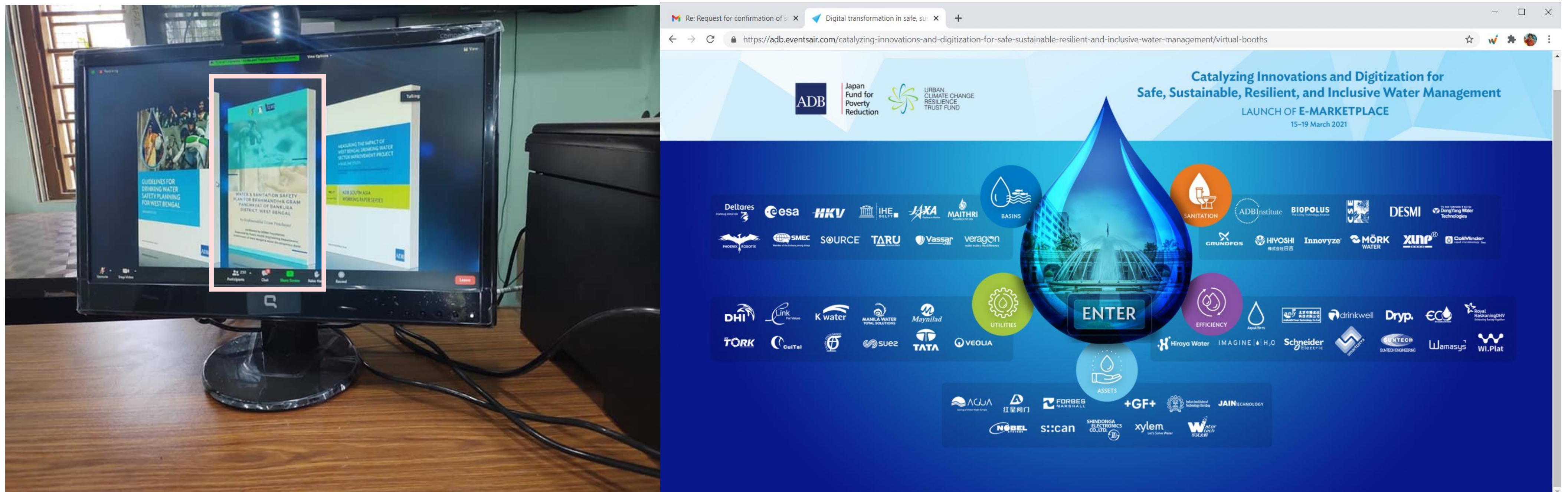
## CSE's Role

- 1. Building capacity of the Members of SIGMA Foundation/other participants and the key functionaries of the Gram Panchayat**
- 2. Introducing a new subject in a lucid and effective manner to enhance the competence of the team members, particularly those from the GP**
- 3. Provided good technical tools for mapping hazards and assessing the risk**
- 4. The exercises helped to deepen the understanding of the subject by the trainees and design the pilot WSSP**
- 5. The training included interactions with key experts from across the country which was useful**
- 6. Shared impactful cases from urban areas (where such exercise was taken up) for better internalization of the issues**



# WORK RECOGNITION

On the esteemed platform of **ADB-E Market Place**, "The Water, Sanitation & Safety Plan ( WSSP)" authored by SIGMA Foundation was launched on 15th March, 2021. The Grand event was **witnessed by 58 international organizations from 13 countries across the globe**. The same was launched in the presence of key global experts in the panel.







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## LAUNCH OF E-MARKETPLACE

15-19 March 2021



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# CRITICAL CHALLENGES AND FUTURE PLANS

## Challenges Faced:

- ❖ The GP generally gives less importance to preventive measures because there is no immediate tangible outcome
- ❖ The status of sanitation of the area is poor and there is huge gap in infrastructure as well as attitude and practice related to sanitation
- ❖ The GP lacks capacity to prepare a WSSP and there was need for strong facilitation by the team members of SIGMA Foundation
- ❖ There were constraints in undertaking field work due to the novel corona virus pandemic situation

## Way Forward:

- ❖ Strong **Capacity Building of the GP**
- ❖ The GP should also take it up not merely as implementation of a scheme but a new way of **improving quality of life** of the people through improved delivery of WASH services along with all possible interventions to manage the public health risks
- ❖ There is need for continuous learning by the GP in the implementation phase for which continuous **support from the state government/professional agencies** will be required
- ❖ The **WSSP can be replicated** in all the 66 GPs in context of the specific GPs of the Project Area.



# THANK YOU

