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Seminar Report on Rationales of Continuos Mode Water Supply(CMS) and Intermittent Mode Water Supply(IMS)

Location: All India institute of local self-government., Andheri (West)

Date of seminar: 8/9/2023 & 9/9/2023

Time: 9:30 am to 6:00 pm

Participants: IWWA Students of Civil Engineering Department, Saraswati College of Engineering, Kharghar.

Number of students:05

Resource Persons:

- Dr. Pradeep Kalbar
- Dr. Rajesh Gupta
- Er. Dilip Sonawane
- Dr. Pawan Labhshetwar
- Dr. Pranjal Dikshit
- Er. Santosh Bendkhale
- Dr. P.N. Ravindra
- Col.Bhaskar Tatwawadi
- Dr. Ulhas Naik
- Er. Sandeep Choudhary
- Dr. Anujkumar Ghorpade
- Er. Chinmaya Tripathi
- Dr. Shailendra Solanki
- Er. Sunil Vaidya
- Dr. Rajendra Genatra
- Er. Pramod Dalvi

POs attained: PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1 & PSO2.

Introduction

The National Seminar on Rationales of Continuous Mode Water Supply (CMS) and Intermittent Mode Water Supply (IMS) was held on the 8th and 9th of September 2023 at Andheri West, Mumbai. Organized by the Indian Water Works Association (IWWA), this two-day seminar brought together experts, policymakers, researchers, and practitioners in the

field of water supply management to discuss and deliberate on the critical aspects of CMS and IMS.

Objectives of the Seminar

1. **Understanding CMS and IMS:** To provide a comprehensive understanding of Continuous Mode Water Supply (CMS) and Intermittent Mode Water Supply (IMS), including their operational principles, advantages, and disadvantages.
2. **Comparative Analysis:** To facilitate a comparative analysis of CMS and IMS, examining the strengths, weaknesses, and situational applicability of each mode of water supply.
3. **Implementation Challenges:** To identify and discuss the challenges associated with implementing CMS and IMS in urban and rural settings, focusing on infrastructural, financial, and technical aspects.
4. **Case Studies and Best Practices:** To present case studies and share best practices from successful implementations of CMS and IMS across various cities and regions, highlighting lessons learned and replicable strategies.
5. **Technological Innovations:** To explore and showcase technological innovations and advancements that can enhance the efficiency and reliability of both CMS and IMS.
6. **Policy Frameworks:** To discuss the policy and regulatory frameworks necessary to support the transition from IMS to CMS, including the role of government and private sector partnerships.
7. **Sustainability and Water Management:** To emphasize the importance of sustainable water management practices and how CMS and IMS can contribute to long-term water conservation and resource management.
8. **Networking and Collaboration:** To provide a platform for professionals, researchers, policymakers, and industry experts to network, share knowledge, and collaborate on future projects and initiatives related to water supply.
9. **Future Directions:** To identify future directions and research areas in the field of water supply, encouraging continued innovation and development in CMS and IMS.

Registration and Inaugural Session

The seminar commenced with registration followed by an inaugural session. Welcome and introduction of the seminar all the speakers was done by Dr.Ulhas Naik & Er.Dilip Sonawane. The information about IWWA specially the work carried out in Mumbai centre was delivered by Er.Maniessha Palande who is the chairperson of IWWA,Mumbai centre followed by address given by Er.Subhash Bhujbal,President of IWWA. The address to the gathering was given by the guest of honour Mr.Manoj Ranade who is IAS ,Director ,DMA,Maharashtra.The chief guest, Dr. Jairaj Pathak who is Retd.IAS,Director General AIILSG, delivered the keynote address, highlighting the critical importance of efficient water supply systems in urban areas.The vote of thanks was given by Er.Dilip Sonawane,who was the event organising secretary.

Day 1: 8th September 2023

Technical Session 1: Different modes of Water Supply

The first technical session focused on the need for alternate water supply,its planning and quality approach. Key topics included:

- **Why we need Alternate Water Supply Models in India than 24x7 Water Supply?** Dr. Pradip Kalbar's presentation focused on the need for alternative water supply models in India, challenging the feasibility and practicality of the 24x7 water supply model. He provided a comprehensive overview of the limitations and challenges associated with 24x7 water supply and proposed alternative approaches that could be more suitable for the diverse and complex water management landscape in India.
- **Coping cost in intermittent water supply system to enjoy the benefits of continuous Mode of water supply:** Dr. Rajesh Gupta's presentation explored the concept of coping costs in the context of intermittent water supply systems and how these costs impact the potential benefits of transitioning to a Continuous Mode of Water Supply (CMS). He provided insights into the financial, social, and operational aspects of coping mechanisms employed by consumers and utilities to manage the inconsistencies of intermittent water supply.
- **Holistic Planning approach for water System Design Studies:** Er. Dilip Sonawane's presentation focused on the importance of a holistic planning approach in water system design studies. He emphasized the need for comprehensive, integrated strategies that consider various aspects of water management, from source to distribution, ensuring sustainability, efficiency, and resilience in water supply systems.
- **Quality aspects in water supply system:Dr.Pawan Labhshetwar:** Dr. Pawan Labhshetwar's presentation focused on the critical quality aspects of water supply systems, emphasizing the need for maintaining high standards of water quality to ensure public health and safety. He discussed various factors affecting water quality, methods for monitoring and controlling quality, and strategies for addressing common water quality issues.

Technical Session 2: Social Aspects, Smart Metering, Infrastructure aspects

The second technical session focused on international experiences on water supply as well as infrastructural requirements for Continuous Water supply system. Key topics included:

- **Preffered models of water provisioning and financing including social aspects:** Dr. Pranjal Deekshit's presentation focused on the preferred models of water provisioning and financing, emphasizing the importance of incorporating social aspects to ensure equitable and sustainable water supply. He discussed various provisioning models, financing mechanisms, and their social implications to highlight effective strategies for water management in diverse communities.
- **International experience on water supply system operations and smart metering:** Er. Santosh Bendkhale's focused on sharing international experiences in the operations of water supply systems and the implementation of smart metering technologies. He highlighted successful case studies from around the world, showcasing how advanced technologies and innovative management practices have improved water supply efficiency, reduced losses, and enhanced customer service.

- **Infrastructure requirements for continuous water supply system:** Dr. P.N. Ravindra's presentation focused on the essential infrastructure requirements for implementing and maintaining a Continuous Water Supply (CWS) system. He detailed the components and considerations necessary to ensure a reliable, efficient, and sustainable 24/7 water supply service.

A panel discussion featuring industry experts and municipal officials, officials from the media industry delved into the feasibility of CMS in Indian cities. The panelists debated the economic viability, required policy changes, and potential impact on consumers. The session was highly interactive, with active participation from the audience.The Panel members contributing to the discussion were

Day 2: 9th September 2023

Technical Session 3: Design norms in respect to IWS & CWS.

The second day began with a session on the need to revise the existing water supply design. Key topics included:

- **Need of feasibility to revise the existing water supply design norms:** Col. Bhaskar Tatwawadi's presentation addressed the critical need for revising existing water supply design norms to adapt to evolving challenges and requirements. He emphasized the importance of assessing the feasibility of updating design standards to ensure that water supply systems are efficient, resilient, and capable of meeting current and future demands.
- **Water Supply System Design and Operation: Inherent Constraints and Housing trends in India:** Dr. Ulhas Naik's presentation explored the inherent constraints faced in designing and operating water supply systems in India, with a particular focus on how evolving housing trends impact these challenges. He discussed the complexities of managing water supply in the context of rapid urbanization and changing demographics, and proposed strategies to address these issues effectively.
- **Flexibility in design of water distribution system:** Er. Sandeepan Choudhary's presentation focused on the importance of flexibility in the design of water distribution systems. He highlighted how adaptable design approaches can address dynamic challenges such as population growth, changing water demand, and emerging technologies. Flexibility in design ensures that water distribution systems remain effective and efficient under varying conditions.

Technical Session 4: Modelling, Water Security and GIS applications: The next session was on the very recent advances in GIS with respect to its applications in Water supply system. Key topics included:

- **Hydraulic modelling and pressure management:** Dr. Anuj Kumar Ghorpade's presentation focused on the critical aspects of hydraulic modeling and pressure management in water distribution systems. He discussed how hydraulic modeling can optimize the design and operation of water supply systems, and how effective pressure management can enhance system performance, reduce losses, and ensure reliable service delivery.
- **Drinking water security in urban Odisha policy to practice:** Er. Chimaya Tripathi's presentation focused on the challenges and strategies associated with

ensuring drinking water security in urban areas of Odisha. He discussed the gap between policy and practice, highlighting how effective implementation of policies can address water security issues and improve access to safe drinking water in urban settings.

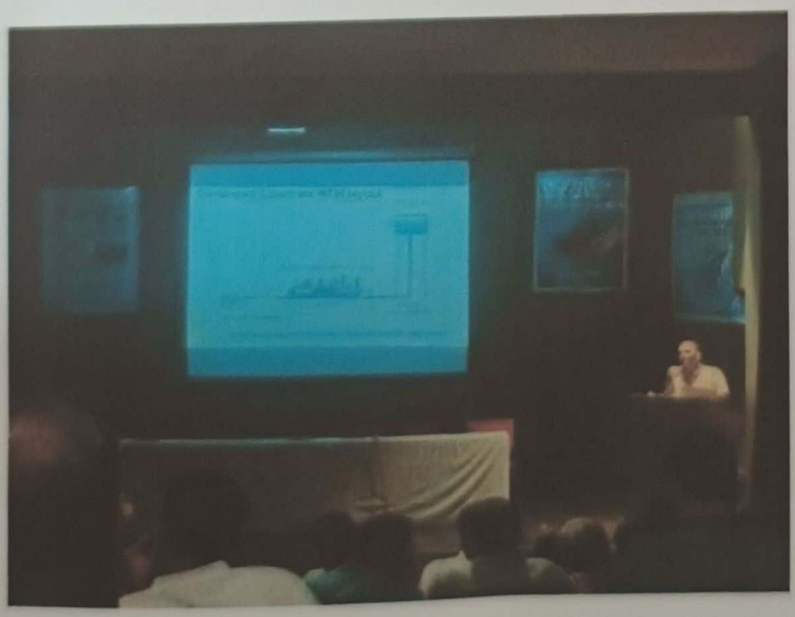
- **Application of GIS for water supply:** Dr. Shailendra Solanki's presentation explored how Geographic Information Systems (GIS) can be effectively utilized for managing water supply systems. He emphasized the role of GIS in enhancing the planning, design, operation, and maintenance of water distribution networks, and its potential to improve overall water management.

Past experiences, PPP models and delegate experiences: Er. Sunil Vaidya's provided an in-depth look into the experience of the Mumbai City Government Municipal Corporation (MCGM) with the continuous mode of water supply. He discussed the transition from intermittent to continuous water supply systems, highlighting the challenges, successes, and lessons learned from MCGM's efforts to provide a reliable and uninterrupted water supply to Mumbai.After that Dr. Rajendra Ganatra's shared the key determinants of successful project financing for Public-Private Partnership (PPP) projects in urban and rural water supply and wastewater treatment sectors. He discussed the factors that contribute to the effective financing and execution of these projects, highlighting best practices and lessons learned from various case studies.

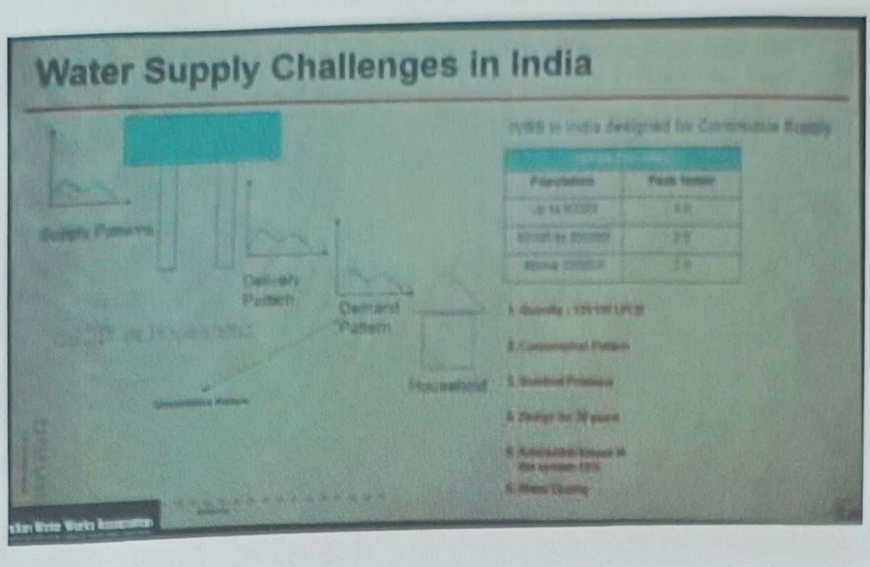
Valedictory Session

The seminar concluded with a valedictory session where key takeaways were summarized. Er.Pramod Dalvi, Ho. Secretary of IWWA, delivered the closing remarks, emphasizing the need for continued research and collaboration to address the challenges of urban water supply.

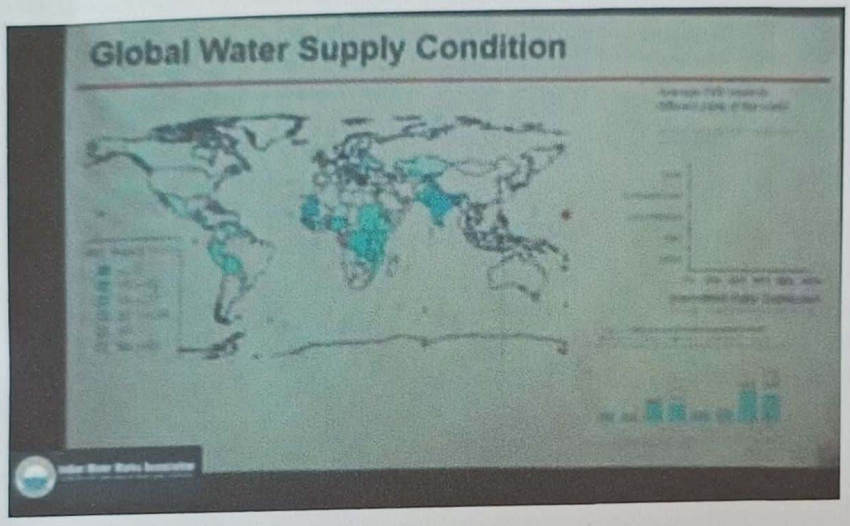
Photographs of the seminar:



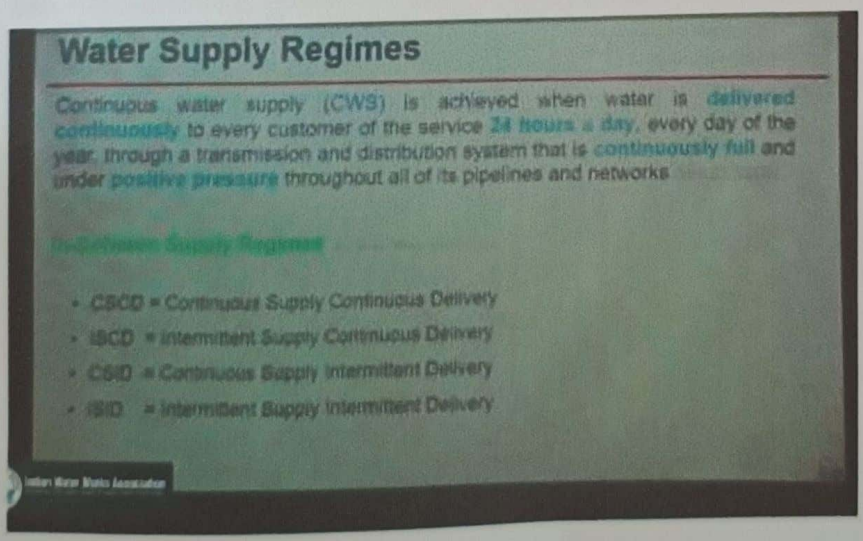
Photograph showing presentation by Dr.Pradeep Kalbar



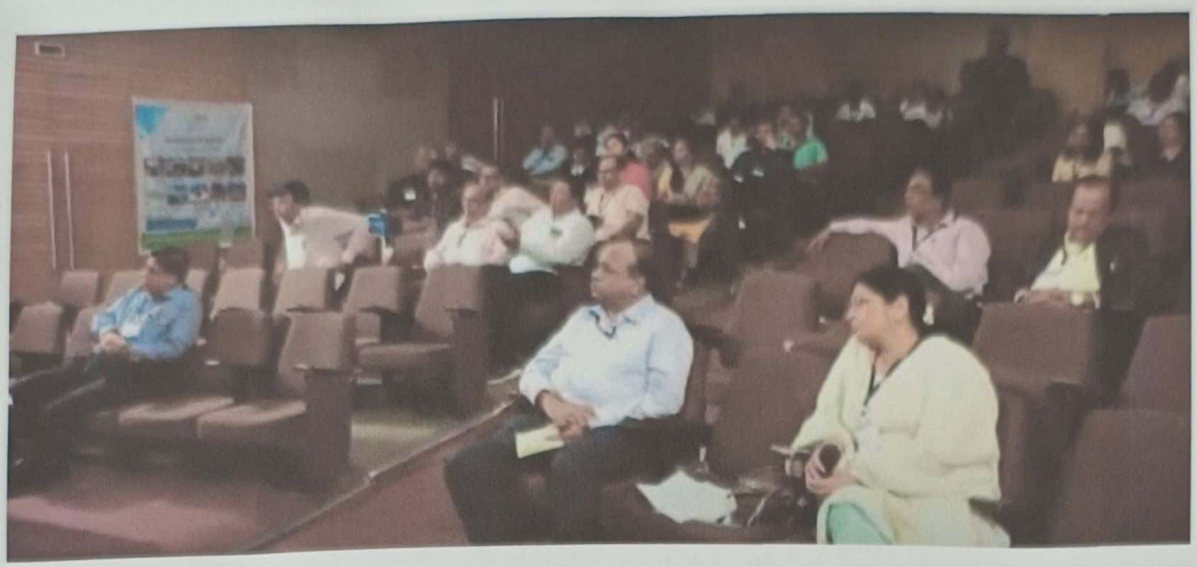
Photograph showing Water supply challenges in India



Photograph showing global water supply



Photograph showing Water supply regimes



Photograph showing participants participating in the question answer session

Key Takeaways

1. **CMS vs. IMS:** The seminar provided a comprehensive understanding of both CMS and IMS, their advantages, challenges, and applicability in different contexts.
2. **Policy and Implementation:** The need for supportive policies and robust implementation frameworks to transition from IMS to CMS was underscored.
3. **Technological Innovations:** Emphasis on leveraging technology to enhance the efficiency and reliability of both CMS and IMS.
4. **Community Involvement:** Highlighted the importance of community involvement and awareness in managing water supply systems effectively.

The seminar was well-received, with participants appreciating the depth of discussions and the practical insights gained. The IWWA's initiative in organizing this seminar was lauded as a significant step towards improving water supply systems in urban India.

IWWA Faculty Coordinator
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