



SOCIETY FOR CLEAN ENVIRONMENT

Sustainable Water Solutions

For

Vadodara Urban Region

Recommendations and Action Plans

SUSTAINABLE
WATER
SOLUTIONS
IN VADODARA
URBAN AREA

SOCLEEN seminar on “Sustainable Water Solutions For Vadodara Urban Area”

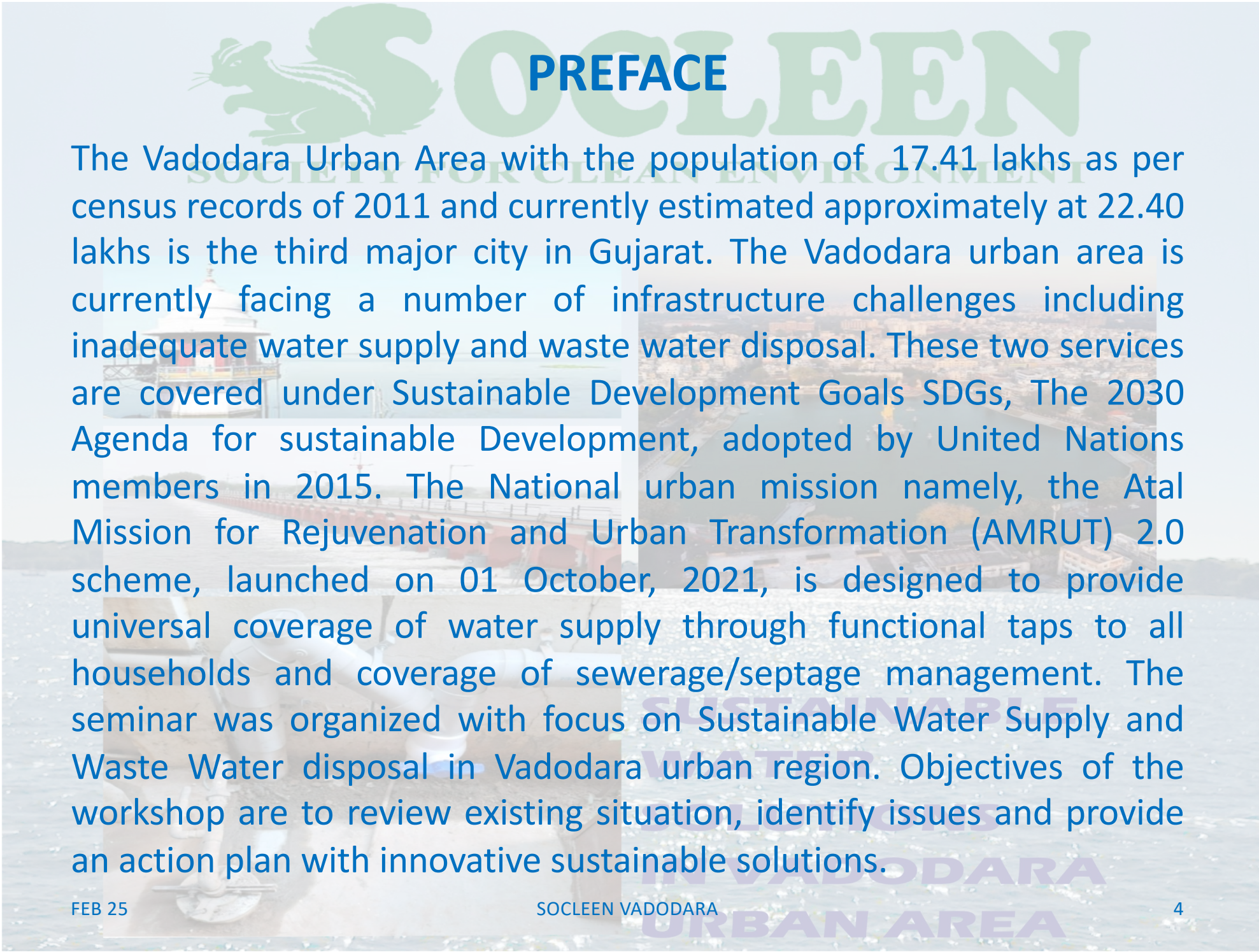
The seminar, organized on 8th February 2025 at Lukshmi Vilas Palace, Vadodara was attended by over 165 representatives from public organisations, industry, academic institutions, Non- Government organisations and citizens. It included two technical sessions and a Panel Discussion. Seminar speakers were experts of international and national repute. Beside the seminar, there was an exhibition and demonstrations of models and paintings relevant to the subject drawn by students of various schools during the competitions held by SOCLEEN.

The purpose of the seminar was to address following for Vadodara Urban area:

- Create awareness and enable public participation in the sector.
- Review existing situation and identify issues.
- Discuss the improvements, changes and innovations needed in delivery of services.
- Provide an action plan with the innovative sustainable solutions.

SEMINAR SPEAKERS

Prof. Meera Mehta	Emeritus Professor and Director, Centre for Water and Sanitation (CWAS), Ahmedabad
Ms. D. Thara	IAS, Additional Secretary and Mission Director AMRUT, Ministry of Housing and Urban Affairs
Dr. Sanskriti Mujumdar	Director, Institute of Climate Change Research, (ICCR), MS University, Vadodara
Shri Chirayu Pandit	Lecturer, Civil Engineering Department, Polytechnic, MS University, Vadodara
Dr. Sandip Shrikhedkar	Advisor, Ground Water Recharge, Art Of Living Foundation, Nagpur
Prof. Dinesh Mehta	Emeritus Professor and Co-Director, Centre for Water and Sanitation (CWAS), Ahmedabad
Shri Santosh Tiwari	Chief Accounts Officer, Vadodara Municipal Corporation
Shri D. J. Trivedi	Former Vice President, Gujarat State Fertilizer Corporation, Vadodara
Shri Kirit Patel	Chairman, Milestone Group of Companies
Dr. Ajay Ranka	CMD, Zydex Industries, Vadodara
Shri Manthan Shah	Jt. Treasurer, CREDAI, Vadodara
Shri Ashok Sarda	Large Size Ground Water Recharge Practitioner, Art Of Living Foundation, Vadodara



PREFACE

The Vadodara Urban Area with the population of 17.41 lakhs as per census records of 2011 and currently estimated approximately at 22.40 lakhs is the third major city in Gujarat. The Vadodara urban area is currently facing a number of infrastructure challenges including inadequate water supply and waste water disposal. These two services are covered under Sustainable Development Goals SDGs, The 2030 Agenda for sustainable Development, adopted by United Nations members in 2015. The National urban mission namely, the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2.0 scheme, launched on 01 October, 2021, is designed to provide universal coverage of water supply through functional taps to all households and coverage of sewerage/septage management. The seminar was organized with focus on Sustainable Water Supply and Waste Water disposal in Vadodara urban region. Objectives of the workshop are to review existing situation, identify issues and provide an action plan with innovative sustainable solutions.

SYNOPSIS

- **Management of Circular Economy of Water**

Redevelopment plan of water infrastructure including lakes and ponds, water harvesting and recycle/reuse of treated water should be prepared. Participation of citizens in decision making and preparation of municipal budget should be increased. VMC should present an Annual Environment Social Governance (ESG) report to the citizens.

- **Excess Water Run off Management**

In order to avoid excess water run off during the rains which also causes flooding, an active plan to implement multi point water harvesting and recharge is to be proposed with idea of “Catch the rain when it falls and when it falls”.

- **VMC should engage the community and experts in planning to prepare a plan for mass scale water recharge scheme**

Vishwamitry river flows 40 km within the city but its catchment area is 4000 sq Km. To recharge the water in ground, large pits are to be prepared at multiple locations while widening natural water streams, rivulets and desilting of water bodies.

- **Increase water absorption areas**

Utilization of pervious material for surface carpeting in public and private areas, rain water harvesting and recharge audit for housing societies should become mandatory. Rejuvenate borewells and water credits scheme should be implemented in the city.

SYNOPSIS

- **Resource Management for the development schemes**

Innovative Green Municipal Bonds issued by VMC was an exemplary initiative for successfully mobilizing funds for water supply projects. Many such bonds with participation of public for projects focused on environmental sustainability should be introduced.

- **Treat, Recycle and Reuse Waste Water**

Industries should take lead in reuse of treated, recycled waste water. VMC should install mega waste water treatment plants and supply this treated water to industry. Sustainable water management plan should have focus on efficiency and resilience. Advance water treatment methods and innovative recycling water treatment with an effective data driven approach can turn potential waste water in to a valuable resource.

- **Housing Societies to take responsibilities for water conservation measures**

Housing societies should follow ‘Zero Waste Water’ approach with advance eco friendly technologies.

- **Mega watershed Recharge wells**

VMC should plan building mega watershed recharge wells near French wells, in lakes, in open spaces, in gardens and at multiple locations to recharge already depleted ground water level and also to minimize effect of flooding in city area.

- Recharge ground water level.
- Increase pervious surface area.
- Mass level water harvesting projects in city.
- Treat, recycle and reuse waste water.
- Mega watershed projects in and around the city.
- Resource mobilization for the projects through public participation.

SOCLEEN to collaborate with State Government, Vadodara Municipal Corporation, Vadodara Urban Development Authority, NGOs, Industry and Trade Associations, Research and Academic institutions, etc. to further plan and implement follow up actions based on deliberations of the Seminar.



RECOMMENDATIONS

In order to offer sustainable urban water solutions for Vadodara Urban Region following recommendations are proposed:

- To rejuvenate existing water bodies and water streams.
- To promote water harvesting at all levels with concept of “Catch the rain where it falls, when it falls”.
- To increase pervious surface area.
- To make “Zero Waste Water” localities by promoting waste water treatment, recycle and reuse.
- To increase ground water level through mega watershed projects.



IMPLEMENTATION STRATEGY

- To approach Vadodara Municipal Corporation and propose guidelines to implement recommendations.
- To approach elected and appointed government representatives responsible for SDGs compliance in city.
- To approach institutions and industries to participate in circular water economy concepts
- To increase public awareness regarding sustainable water and waste water solutions.



ACTION PLAN

- To support agencies like Art Of Living Foundation for their study on ground water recharge and presenting the same to VMC and other private and government organizations.
- Support VMC for Environment, Social and Governance Report.
- Providing technical assistance to housing societies, institutions and industries to plan and implement rain water harvesting and reuse of water.
- To propose assistance to VMC for preparing a pilot project to access Urban Challenge Fund.
- Assist Start ups working in urban water and waste water sector

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Thank You

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