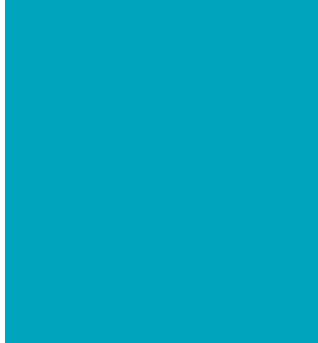




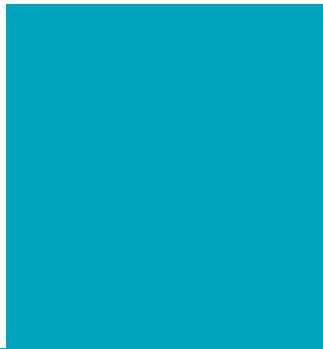
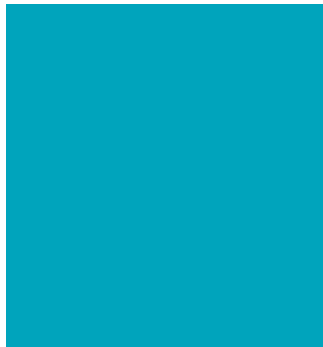
Moving Towards Daily Water Supply Through Demand Management

Case of Gandhidham Municipal Corporation (GdMC)

Priyadarshini Choudhary
Program Lead

on behalf of **Dipti Tanna and Aasim Mansuri**
CWAS-CRDF-CEPT University
and
Gandhidham Municipal Corporation (GdMC)

23rd September 2026



CWAS CENTER
FOR WATER AND
SANITATION

CRDF CEPT RESEARCH
AND DEVELOPMENT
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Gandhidham Municipal Corporation: Kachchh's First Municipal Corporation in a Water-Stressed and Climate-Vulnerable Region

Chronically drought prone region with a frequency of once in every 2.5 years

- Over exploitation of ground water, which is further aggravated by salt water intrusion
- Dependent on Narmada Water

Frequent Urban flooding scenario in major parts of the cities

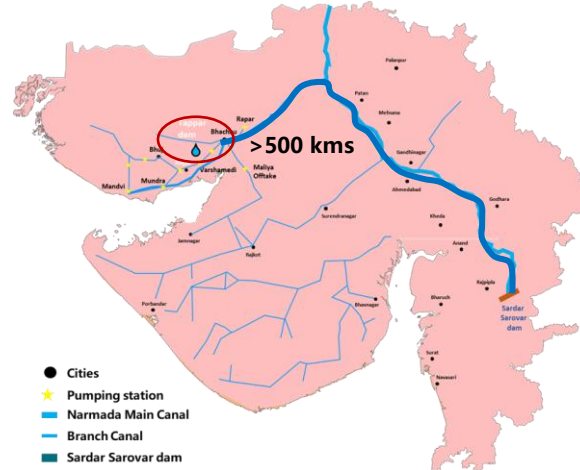


In Kutch, history has a habit of repeating itself

Rutam V Vora | Bhuj, March 28 | Updated On: Mar 28, 2019



The region is witnessing its worst drought in 30 years; 16 of its 20 dams have gone dry; there is drinking water but nothing for cattle; and yet, its people remain resilient



Printed from
THE TIMES OF INDIA

Rains pound Gandhidham, Anjar towns in Kutch

TNN | Jul 12, 2020, 04:32 AM IST

Rajkot: Heavy rain lashed Kutch's commercial city Gandhidham and Anjar on Saturday evening causing severe water-logging in many areas. However, the people welcomed the rain that gave them some respite from the humid heat.



Gujarat Braces for a Wet Weekend; Heavy Rain Alerts Issued over Kachchh, Jamnagar, Sabar Kantha, Surendranagar, Mahesana

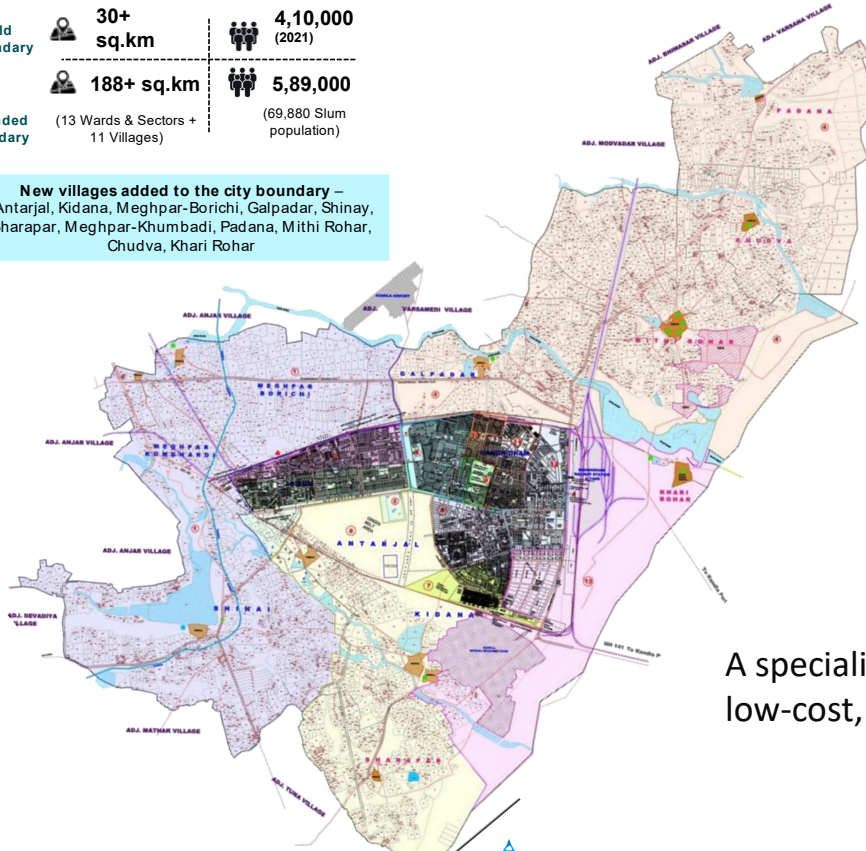
By TWC India Edit Team - 22 July, 2022 - TWC India



Gandhidham's Transition to a Municipal Corporation: Addressing the Growing Need for Water Security through National Missions

Old boundary	30+ sq.km	4,10,000 (2021)
+ Extended boundary	188+ sq.km	5,89,000 (69,880 Slum population)
(13 Wards & Sectors + 11 Villages)		

New villages added to the city boundary –
Antarjal, Kidana, Meghpar-Borichi, Galpadar, Shinay, Bharapar, Meghpar-Khumbadi, Padana, Mithi Rohar, Chudva, Khari Rohar



Atal Mission for Rejuvenation & Urban Transformation (AMRUT) 2.0

Circular economy of water, Aquifer Management plan, NRW reduction, Metering



Jal Shakti Abhiyan: Catch the Rain

Jal Sanchay Jan Bhagidari (2024)

A specialized component focusing on community-led construction of low-cost, artificial recharge structures and reviving defunct bore wells

Water Security Action Plan identified Moving towards daily water supply as a key initiative to improve municipal services

Key findings



High dependency of distant water
Questioning source sustainability?



Depleting Groundwater levels



Poor groundwater quality with salinity ingress



Urban Flood situation during monsoon



Intermittent Water Supply-
Once in 4 days in Gandhidham



Issues related to Water supply in Slum pockets

Key Challenge



Water
Source



Municipal
Services

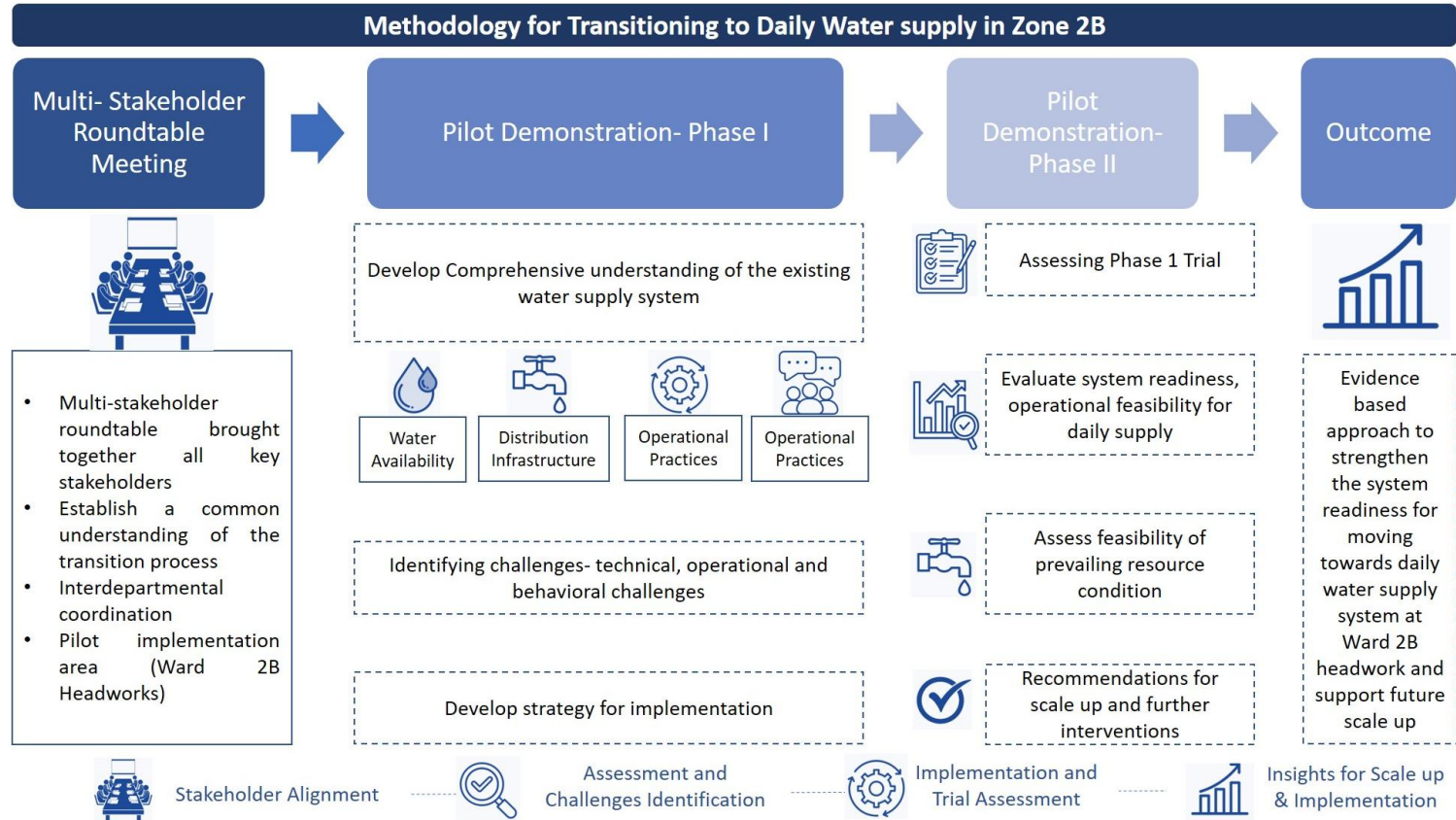


Institutional &
Financial
Initiatives

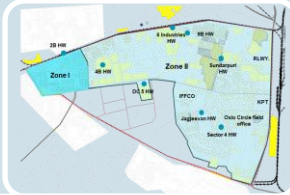


Awareness &
Engagement

Methodology and approach developed to move towards daily water supply in pilot location before scaling it up citywide



Strategic implementation of daily water supply at pilot location – based on filed visit and stakeholder consultation



Understanding Existing System

- Source
- Storage Capacity
- Valve operations
- Network-Supply areas
- Supply timings



IEC – Behavioural Change

- Water Conservation
- Usage of booster pumps
- Storing water beyond requirement



Conducting Trial Run

- Strategy discussion – including GdMC+ GWSSB+ GUDC
- Trial Run
- Bucket survey



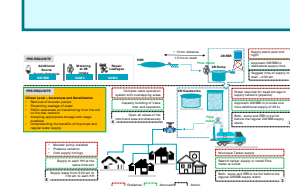
Demand Management

- Meter installation at Source and WDS
- Addressing Leakage issues



Development of detailed plan

- Supply Schedule
- Informed water management system



Demand Management Strategy for Transitioning to daily water supply

PRE-REQUISITE



Additional Source Supply Schedule
GWSSB



Metering at 2B intake
GdMC



Repair Leakages
GdMC

HSR

~ 13 km distance

1.5 hrs to reach

GL

Flow meter

2B ESR

2B Sump

GL

Supply starts post mid night

Approach GWSSB to reschedule supply time

Suggest time of supply to start – 4:30 am

1

PRE-REQUISITE

Citizen Level (IEC) – Awareness and Sensitization

- Removal of booster pumps
- Preventing wastage of water
- Public awareness on transitioning from the old to the new network
- Adopting appropriate storage and usage practices
- Understanding the benefits of improved and regular water supply

Complex valve operation system with overlapping areas

Capacity building of Valve man and operators

Open all valves of the command area simultaneously

4

2B Headworks

Flow meter

Water required for dead storage in supply network (pipeline)

Approach GWSSB to provide one time additional supply of 26 LL

Both- sump and ESR to be full before the regular GWSSB supply starts

2

- Booster pump installed
- Pressure variation
- Odd supply timings

Supply to each HH at the same time slot

Supply water from 6:30 am to 7:30 am to each HH

5

Municipal Tanker supply

Restrict tanker supply or install Flow meter at outlet

Both- sump and ESR to be full before the regular GWSSB supply starts

3



From Dialogue to Implementation: Building Stakeholder and Grassroots Support for Daily Water Supply



Ensuring **Effective Coordination** across Stakeholders



Engaging and preparing valve operators while capturing their inputs on anticipated challenges to ensure a smooth transition



Conducted **bucket survey training** for valve operators

Key Learnings for moving towards daily water supply

Governance & Coordination



Ensuring **Effective Coordination** across Stakeholders/ departments



Defined **Roles and Responsibilities**



Efficient Operations – Valve operations, Monitoring Gaps

Demand Management



Installation of **meters for quantification** of water allocation



Repair of **leakages** across the network



Pressure Management through regular testing/ measuring

IEC - Awareness and Sensitisation



Avoid usage of **Booster Pumps** at HH level



Storage of **excess Water/ Wastage of Water**



Supporting **city administration** during such transitions

THANK YOU

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About us

The Center for Water and Sanitation (CWAS) is a part of CEPT Research and Development Foundation (CRDF) at CEPT University. CWAS undertakes action-research, implementation support, capacity building and advocacy in the field of urban water and sanitation. Acting as a thought catalyst and facilitator, CWAS works closely with all levels of governments - national, state and local to support them in delivering water and sanitation services in an efficient, effective and equitable manner.



cwas.org.in
pas.org.in



cwas@cept.ac.in
tiny.cc/pasenews



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