CHAHAL ACADEMY

SUMMARY OF YOJANA

SEPTEMBER 2025

REIMAGINING WATER & SANITATION

TOPIC 1: SWACHH BHARAT MISSION (GRAMEEN) & JAL JEEVAN MISSION – PAVING WAY FOR VIKSIT BHARAT @20470

I. Introduction and Context

- Flagship Interventions
  - **2014**: Launch of Swachh Bharat Mission (Grameen) (SBM-G).
  - **2019**: Launch of Jal Jeevan Mission (JJM).
- **Nature of Interventions**
  - Not just service delivery in sanitation or drinking water.
  - Aimed at recalibrating governance priorities in rural India.
  - Addressed long-standing deficits in public health infrastructure.
- **Governance Philosophy**
  - Inspired by the Prime Minister's motto: *"Sabka Saath, Sabka Vikas, Sabka Vishwas, Sabka Prayas."*
  - Represents **inclusive and participatory governance**.
  - Shift away from top-down delivery models towards community-driven action.

II. Core Principles of SBM-G and JJM

- **Jan Bhagidari (People's Participation)**
  - Central element of both missions.
  - Communities actively plan, implement, and manage sanitation and water systems.
- **People-Owned & People-Managed**
  - Strength of collective responsibility sustains services and behaviour long after infrastructure is built.
- **Local Institutions Empowered**
  - Panchayats and VWSCs take decision-making roles.
  - Behavioural change embedded at grassroots level.

III. Swachh Bharat Mission (Grameen): Sustaining the Sanitation Momentum

- **Achievements in a Decade:**
- Declared India as **Open Defecation Free (ODF)** by 2019.
- Sanitation coverage improved from **39% in 2014 → 100% in 2019.**
- Created **decentralised systems** to adapt to local needs.
- Community ownership: sanitation understood, owned, and sustained at village level.
- **SBM Phase II (2020–21 onwards):** Focus on **ODF Plus Model** villages.
- **ODF Plus Model means:**
  - Sustaining ODF status.
  - Proper solid and liquid waste management.
  - Ensuring visual cleanliness in villages.
- **As of July 2025:**
  - More than **96% of villages** declared ODF Plus.
  - **4.70 lakh** villages categorised as ODF Plus Model.
- **Social and Behavioural Shift**
- Sanitation became a symbol of **dignity, equity, and national resolve**.
- Changed relationship between citizen and state.
- Integrated behaviour changes into rural culture.

IV. Jal Jeevan Mission: Ensuring Water Security

- **Progress and Coverage**
- Launched in **2019**, to complement SBM-G achievements.
- By **July 2025**:
  - Over **15.67 crore household tap connections**.
  - Crossed **80% rural coverage**.

- Tackling Geographical Challenges
- Ensured coverage in tough regions:
  - Bundelkhand.
  - Himalayan belt.
  - Deccan plateau.
  - Eastern Ghats.
- Demonstrates **resilience and adaptability**.
- **Community Ownership and Role of Women**
- Gram Panchayats and VWSCs are responsible for **planning, execution, monitoring, and maintenance**.
- **Empowering women**:
  - 24 lakh+ women trained with Field Testing Kits for water quality.
  - Women became ***Jal Sakhis / Jal Sahiyas*.**
  - From water carriers water managers.
- **Schools and Anganwadis:**
  - Access to piped water.
  - Healthier and more dignified environments for children.
  - Girls' school attendance improved due to sanitation & hygiene facilities.

V. Profound Impact of SBM-G and JJM

- **Public Health**
- **Michael Kremer's research**: Universal safe water access could reduce infant mortality by **30%** (~1.36 lakh child deaths annually).
- **WHO Report**:
  - JJM can prevent 4 lakh diarrhoeal deaths.
  - Saves 5.5 crore hours daily (mostly women's).
  - Economic benefits of ₹8.28 lakh crore.
- **SBM-G Impact**:
  - **WHO (2018):** 3 lakh diarrhoeal deaths avoided in 2019 vs 2014.
  - **Nature (2024):** 60,000–70,000 infant lives saved annually.
- **Women's Dignity and Empowerment**
- UNICEF/BMGF Study (2020): Household toilets enhanced **Suvidha (convenience)**, **Suraksha (safety)**, **Swabhimaan (self-respect)** of rural women.
- Reduced need for women to walk long distances for sanitation or water.
- **Environment and Hygiene**
- **UNICEF Study (2018–19):** Groundwater in ODF villages was **12.7 times less contaminated** compared to non-ODF villages.
- **Employment Generation**
- Construction phase created:
  - 60 lakh person-years of direct employment.
  - 2 crore person-years of indirect employment.
- **Localised Successes**
- Revived dormant water schemes through Gram Panchayat mobilisation.
- Tribal communities built water testing and distribution systems.
- Women trained as pump operators – breaking traditional hierarchies.

VI. SMART Vision for the Future of SBM-G

(i) S – Sustainability of Assets and Behaviours:

- Shift from infrastructure to systems management.
- Importance of O&M protocols, funding at Gram Panchayat level.
- **Innovations:**
  - Greywater reuse (Tamil Nadu).
  - Soak pit standardisation (Rajasthan).
  - Community O&M models (Kerala, Sikkim).

(ii) M – Making Women Central

- Women as ***Rani Mistris, Swachhagrahis, SHGs, Jal Sakhis*.**
- SHG-led enterprises: sanitary pad production (Odisha), faecal sludge management (Telangana).
- Sanitation as income and leadership opportunity.

(iii) A – Accelerating Private Sector Role

- Private sector in waste management & circular economy.
- GOBARdhan units integrated with dairies (Maharashtra, Gujarat).
- Potential for CSR-backed projects and sanitation incubators.

(iv) R – Re-establishing Communication

- Communication central to SBM-G's success.
- **Next phase:** awareness about pit emptying, menstrual waste disposal, segregation.

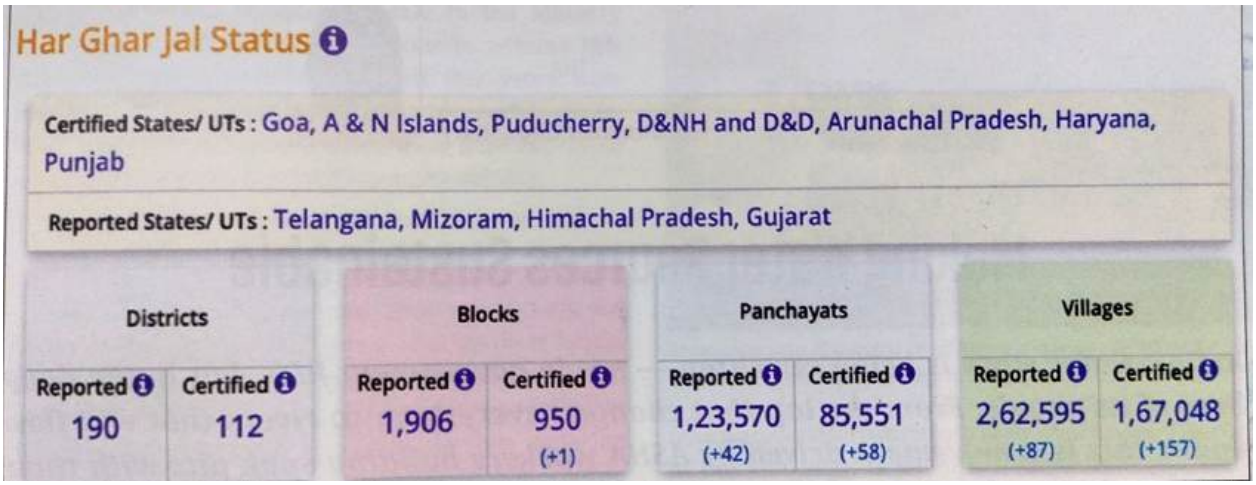
- **Tools:** SBM Academy, WhatsApp lessons, rural influencers, school sanitation clubs.

(v) T – Training and Technology

- Move towards **Smart Sanitation Villages**.
- **Features**:
  - Real-time monitoring.
  - Solar-powered STPs.
  - Digitised waste collection.
- Training of masons, GPs, sanitation workers in climate-linked sanitation practices.

VII. Future of Jal Jeevan Mission: Beyond the Tap

- **Extension till 2028**
- Announced in the Union Budget 2025–26.
- **Focus on:** sustainability, functionality, O&M, climate adaptation.
- **Four Strategic Shifts:**
- **Tap Coverage → Water Security**
  - Hydro-geological mapping.
  - Springshed development in Himalayas.
  - Aquifer recharge & rainwater harvesting.
  - **Initiatives:** ***JSA: Catch the Rain*** **&** ***Jal Sanchay Jan Bhagidari.***
- **Infrastructure → Innovation**
  - IoT-based water monitoring.
  - Climate-smart villages.
- **Beneficiaries → Co-creators**
  - Role of Jal Doots, Jal Sakhis, Jal Sahiyas.
- **Silos → Synergy**
  - Convergence with health, nutrition, education, and agriculture.
  - Greywater irrigation for kitchen gardens.
  - Improved nutrition and reduced stunting.



VIII. Alignment with Sustainable Development Goals (SDGs)

- **SDG 6**: Clean water and sanitation – directly addressed.
- **Other SDGs indirectly advanced**:
  - SDG 3: Health (reduced mortality).
  - SDG 4: Education (girls' attendance).
  - SDG 5: Gender equality (women's empowerment).
  - SDG 8: Decent work (jobs in sanitation/ water).
  - SDG 13: Climate action (resilient WASH systems).

IX. Current Status (as of 2025)

- **SBM-G**:
  - 5.65 lakh ODF Plus villages.
  - 4.70 lakh ODF Plus Model villages.
  - 5.18 lakh with Solid Waste Management.
  - 5.32 lakh with Liquid Waste Management.
- **JJM**:
  - 190 districts, 1,906 blocks, 1.23 lakh GPs, and 2.62 lakh villages achieved Har Ghar Jal.
- **Swachh Sujal Gaon:**
  - 1.19 lakh+ villages achieved this benchmark.

X. Conclusion – Road to Viksit Bharat @2047

- SBM-G and JJM represent **new governance models** – participatory, inclusive, and resilient.
- **Women and communities** are central actors, not passive beneficiaries.

- Missions already produced measurable health, social, and economic gains.
- **Future success depends on:**
  - Ensuring inclusion.
  - Sustaining infrastructure.
  - Climate-proofing water and sanitation systems.
- By 2047, India aims to become a **self-reliant Swachh and Viksit Bharat** where no one is left behind.

TOPIC 2: MAKING WATER SOURCES SUSTAINABLE

I. Introduction: The Sacred and Practical Value of Water

- **Water holds deep cultural, spiritual, and social significance in India:**
  - First element offered to a guest.
  - Last poured during funerals.
  - Integral to rituals, agriculture, and daily sustenance.
- **Challenges in recent decades:**
  - Erratic rainfall patterns.
  - Rising global and local temperatures.
  - Over-extraction of groundwater.
  - Pollution of rivers and aquifers.
  - Population-driven demand.
- **India's water paradox:**
  - Holds only **4% of global freshwater**.
  - Supports **18% of the global population**.
- **Shift in approach: from extraction to conservation, dependency to decentralisation, scarcity to sustainability.**

II. The Tap that Changed Everything – Jal Jeevan Mission (JJM)

- **Past reality:**
  - Women and girls walked miles daily with heavy pots.
  - Unsafe water led to diseases.
  - Social costs: lost schooling, poor health, wasted time, and loss of dignity.
- **JJM launched in 2019** with vision: Functional Household Tap Connection (FHTC) in every rural household.
- **Achievements**: Over **15.67 crore rural households** now have tap water.
- **Impact**:
  - Empowerment of women (from water carriers to water managers).
  - Formation of **Village Water & Sanitation Committees (VWSCs)**.
  - Women test water quality, draft security plans.
  - Improved education (girls remain in school).
  - Better family nutrition and hygiene.
  - Efficient irrigation practices.
  - Dignity and time restored to households.

III. Recharging the Future – Catch the Rain Campaign

- **India's rainfall:** heavy but short-lived during monsoon.
- **Traditional wisdom**: stepwells, tanks, ponds – once effective but neglected.
- **'Catch the Rain' campaign** – public movement with slogan *"Catch the rain, where it falls, when it falls."*
- **Five focused interventions of JSA-CTR**:
  - Rainwater harvesting & conservation.
  - Geo-tagging and scientific water inventories.
  - Jal Shakti Kendras in all districts.
  - Intensive afforestation drives.
  - Large-scale awareness generation.
- **Achievements:**
  - Rooftop harvesting in schools, offices, railway stations.
  - Over **2.5 lakh Amrit Sarovars** (revived ponds, lakes).
  - Tools: remote sensing, GIS mapping, digital dashboards.
- **Community initiative** – ***Jal Sanchay Jan Bhagidari (JSJB)*:**
  - Promotes artificial recharge structures & borewell shafts.
  - Uses multiple scheme convergence for groundwater recharge.
  - Ensures transparency and community participation.

IV. Managing Wastewater – A New Mindset

- **Earlier perception**: **wastewater = waste.**
- **Now**: **wastewater = resource.**
- **Swachh Bharat Mission (Grameen) Phase II (SBM-G)**:
  - **Phase I:** achieved **ODF India**.
  - **Phase II: ODF Plus Model** → solid & liquid waste management.
- **Guiding principle**: 3Rs – Reduce, Reuse, Recycle.
- **Examples of reuse**:
  - Greywater irrigates kitchen gardens improves nutrition.
  - Low-cost soak pits, leach pits, wetlands recharge groundwater.
  - Treated industrial effluents reused for agriculture → reduces freshwater demand.
- **Technological interventions**:
  - **Bio-remediation units** – Tamil Nadu.
  - **DEWATS (Decentralised Wastewater Treatment Systems)** – Maharashtra.
  - **Vermifiltration** – Odisha.
- **Impact:**
  - Cleaner villages, greener surroundings.
  - Enhanced agricultural productivity.
  - **Shift in social attitude:** communities treat wastewater as wealth.

V. Rainfall Data and Technology for Governance

- **Automated Rain Gauges (ARGs):**
  - Real-time rainfall data to Panchayats.
  - Enables water budgeting and planning.
  - Decisions on soak pits, check dams, storage structures.
- **Digital platforms:**
  - Meri Panchayat App.
  - JJM dashboard.
- **Outcomes:**
  - Transparency and trust in governance.
  - Preparedness for floods/droughts.
  - Empowered local institutions with science-backed decisions.

VI. Groundwater – Atal Bhujal Yojana (Atal Jal)

- **Importance**:
  - 60% irrigation from groundwater.
  - 85% of rural drinking water dependent on it.
- **Problem**: Over-extraction, loss of recharge zones, falling aquifers.
- **Solution: Atal Jal Yojana (World Bank supported)**.
  - Covers **8,000 Gram Panchayats** across 7 stressed states.
  - Promotes **community-led groundwater budgeting**.
  - Villages map aquifers and create **Water Security Plans**.
  - Farmers shift to less water-intensive crops.
  - IoT sensors, mobile apps, AI dashboards empower local monitoring.
- **Impact**:
  - Reduced water conflicts.
  - Collaborative governance.
  - Preservation of groundwater for future generations.

VII. Reviving Rivers – Namami Gange and Beyond

- **Rivers as lifelines**: Indus, Ganga, Brahmaputra, Godavari etc.
- **Problems**: urbanisation, industrial pollution, encroachment, sand mining.
- **Namami Gange achievements**:
  - **150+ sewage treatment plants** (operational/under construction).
  - Online monitoring of industrial effluents.
  - Cleaned & rejuvenated ghats across **100 towns**.
- **Extended efforts**: rejuvenating smaller rivers, nalas, ponds.
- **Eco-restoration measures**: desilting, tree plantation, riverbank protection.
- **Outcome**: restored ecosystems, stronger cultural and economic ties.

VIII. Partnerships that Enable Change

- **Government + Society model**:
  - **SHGs** – build soak pits, maintain toilets, spread awareness.

- **Startups/entrepreneurs** – affordable tech for water testing, filtration, metering.
- **CSR initiatives** – harvesting structures, WASH in schools, campaigns.
- **International partners** – UNICEF, World Bank, Gates Foundation support with expertise and best practices.

- **Result**: Ecosystem of accountability, shared responsibility, and innovation.

IX. A Tapestry Woven by All – People's Movement

- **Driven by individuals and communities:**
  - ASHA workers building soak pits.
  - School children conducting water audits.
  - Sarpanches mobilising villages for pond cleaning.
  - Farmers adopting sustainable cropping.
  - Mothers ensure water testing at household level.
- Water sustainability is becoming a **daily practice, not just policy**.

X. The Road Ahead

- **Challenges remain**:
  - Climate change.
  - Population growth.
  - Rising urban demand.
- **Preparedness:**
  - Strong policies, digital monitoring, empowered local institutions.
- **Vision**: *Jal Surakshit Bharat* –
  - Every home has safe drinking water.
  - Every river flows clean.
  - Every village is resilient and water secure.
  - Water is seen as a **common good, not commodity**.

TOPIC 3: WASH FOR WOMEN, WASH FOR THE NATION – STRUCTURED SUMMARY

I. Background and Context

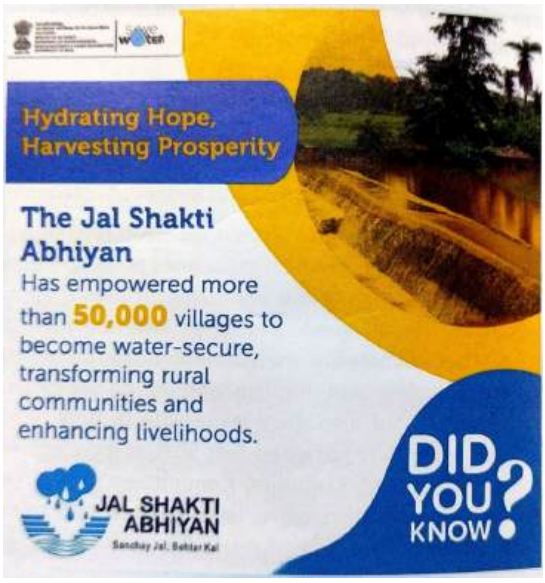
- Over the past decade, India's rural sanitation and water supply landscape has transformed significantly.
- Women have moved from being passive users to **active custodians, leaders, and change-makers** in WASH.
- Central to this transformation is **Jan Bhagidari (people's participation)**, which turned sanitation and water from a government scheme into a **Jan Andolan (people's movement)**.
- Collective ownership ensures sustainability and long-lasting impact.

II. Gendered Dimensions of WASH

- **Traditional Roles of Women**
  - **Women and girls bear invisible routines:** fetching water, managing household sanitation, ensuring family hygiene.
  - These expectations limit their **education, livelihood opportunities, and personal agency**.
- **Unique Challenges for Women**
  - Menstruation, pregnancy, and menopause create distinct WASH-related needs.
  - Lack of access impacts their **health, dignity, safety, and quality of life**.
- **Significance of WASH for Women**
  - Improvements directly influence **women's wellbeing, education, productivity, and empowerment**.

III. Women's Leadership in WASH

- Transformation is rooted in **Jan Bhagidari**, turning beneficiaries into **active stakeholders**.
- Women are still primary managers of household water and sanitation, especially in rural India.
- **NFHS-5 (2019-21) data:**



- 67% of rural households had water on premises vs 86% in urban areas.
- ~32% of rural households still lacked water on their premises.

IV. Government Programmes Driving Change

- **Swachh Bharat Mission (SBM-G)**
  - **Phase 1 (2014-19):** 10 crore toilets built → sanitation coverage rose from 39% to 100%.
  - **Phase 2 (2020 onwards):**
    - 1.75 crore toilets constructed (as of July 2025).
    - 5.18 lakh villages – Solid Waste Management.
    - 5.32 lakh villages – Liquid Waste Management.
- **Jal Jeevan Mission (JJM):**
  - 12.43 crore households have been given tap water since launch.
  - 15.67 crore rural households covered (as of July 2025).
  - Focus on **safe drinking water, women's leadership, and sustainability**.

V. Institutional Inclusion of Women

- **Earlier:** Women were absent from **WASH governance and decision-making**.
- **SBM-G and JJM changed this by:**
  - Recognising women as central to **behaviour change and service delivery**.
  - Including them in **formal institutional frameworks**.
  - Addressing **practical gender needs** and **strategic gender interests**.
- **Guidelines for Inclusion**
  - 50% of members in **Village Water and Sanitation Committees (VWSCs)** must be women.
  - Women encouraged to lead in planning, implementing, and managing WASH systems.

VI. Women as Change-Makers

- **Roles under SBM-G and JJM**
  - **Swachhagrahis:** Mobilising communities, promoting sanitation practices.
  - **Jal Sahiyas/Jal Sakhis:** Water quality testing.
  - **VWSC/SHG members:** Managing infrastructure, awareness campaigns.
  - **Examples:** Dindori district, MP: ***Maa Narmada Jal Samiti*** managed entirely by tribal women, overseeing distribution, chlorination, and quality records.

VII. Key Community Platforms

- **Self-Help Groups (SHGs)**
  - Operate community sanitary complexes (cleanliness, fee collection, minor repairs).
  - Drive **behaviour change and economic empowerment**.
  - Create replicable models for scale with SBM-G and JJM convergence.
- **Village Water & Sanitation Committees (VWSCs)**
  - **Mandated:** 50% women + SC/ST representation.
  - Over 3.2 lakh women in leadership roles (president, secretary, treasurer).
  - Women-led VWSCs linked with:
    - Higher contributions to user charges.
    - Better adherence to hygiene protocols.
    - Faster complaint resolution.
- **Swachhagrahis & Community Resource Persons**
  - **SBM-G Phase 1:** 5.5 lakh Swachhagrahis (many women).
  - **Phase 2:** 3.6 lakh active Swachhagrahis.
  - Women trained in **CLTS, IPC, MHM**.
  - **Example:** In UP, MHM clubs led by young girls address taboo issues like menstruation and pit emptying.

VIII. Water Revolution Led by Women

- **JJM milestone: 15 crore+ tap connections**.
  - Over **24.8 lakh women trained** in water testing using FTKs.
  - Women trained in **plumbing, system maintenance, distribution management**.
  - Represents a **deep shift in governance and gender roles**, making women **frontline managers of lifeline services**.

IX. Linkages with Rural Development and SDGs

- **SDG 3 (Health):** Reduction in water-borne

diseases, improved MHM, reduced child mortality.

- **SDG 4 (Education):** Girls' retention improved due to toilet availability (ASER 2022).
- **SDG 5 (Gender Equality):** Women now part of meetings, decision-making, and water testing.
- **SDG 6 (Clean Water & Sanitation):** Improved access, with emphasis on sustainability.
- **SDG 8 (Livelihoods):** Emerging income streams in sanitation enterprises and water management.

X. Challenges and Way Forward

- **Persisting Challenges:**
  - Grassroots roles (Swachhagrahis, Jal Sakhis) need better **incentives**.
  - Women's participation needs to move **from presence to power**.
- **Strategic Actions:**
  - **Institutionalise Leadership:** Make women-led VWSCs and SHG-run initiatives part of KPIs.
  - **Capacity Building:** Continuous training in planning, finance, grievance handling (via SBM/JJM Academies, e-learning).
  - **Women-Owned Enterprises:** Enable women to run FSTPs, greywater treatment, MHM units.
  - **Data & Recognition:** Track women's roles, reward Gram Panchayats on Swachh Bharat Diwas & Women's Day.
  - **Leverage VHSNCs:** Align with VWSCs for sanitation-health convergence.
  - **Convergence with Other Ministries:** Link with NRLM, WCD, and Panchayati Raj for scale.

XI. Conclusion

- WASH is no longer just about infrastructure; it is about **empowerment, dignity, and equality**.
- Women's leadership has redefined community development, showing that **when women lead, communities thrive**.
- **The mission ahead:** build systems where **every woman is a water warrior, sanitation entrepreneur, and hygiene champion**.
- Such a model ensures **inclusive, sustainable, and enduring national development**.

TOPIC 4: A DECADE OF WASH

1. Introduction and Background

- The last decade marks a **silent yet powerful revolution** in India's development journey.
- This revolution is reflected in the twin flagship missions:

(i) Swachh Bharat Mission-Gramin (SBM-G).

(ii) Jal Jeevan Mission (JJM).

- These missions have redefined India's **Water, Sanitation and Hygiene (WASH)** sector by:
  - Embedding **technology in governance**.
  - Placing **Gram Panchayats and communities** at the centre.
- WASH initiatives have impacted:
  - **Health and ease of living**.
  - **Economy and livelihoods**.
  - **Social inclusivity**.
  - **Public health outcomes**.

II. Historical Context of WASH in India

- **Ancient Roots:**
  - **Indus Valley Civilization (2500 BCE):** Advanced drainage, household toilets.
  - Over time, especially during colonial rule, sanitation became a **neglected public priority**.
  - Caste-based stigmas reinforced habits like **open defecation**.
- **Post-Independence Efforts:**
  - **1951:** First Five-Year Plan integrated health, water, sanitation.
  - **1986 (CRSP):** Central Rural Sanitation Programme launched for toilets and dignity of women.
    - Supply-driven, modest results due to poor community involvement.
  - **1999 (TSC): Total Sanitation Campaign launched.**
    - Shifted focus from infrastructure to **awareness, IEC, PRIs involvement**.
  - **2009 (NBA): Nirmal Bharat Abhiyan.**
    - Subsidies for BPL toilets, community-led sanitation.
    - States began framing sanitation policies.

- **2014:** SBM launched to achieve comprehensive sanitation coverage.

- **Rural Water Supply Efforts**
  - **1954:** National Water Supply Programme introduced.
  - **1972-73:** Accelerated Rural Water Supply Programme (ARWSP) to tackle scarcity and disease.
  - **1986:** National Drinking Water Mission (NDWM/Technology Mission).
  - **1990s:** Shift to decentralised, community-managed reforms (**Swajaldhara, 2002**).
  - **2009-10:** NRDWP introduced, focused on sustainability.
  - **2017:** National Water Quality Sub-Mission (NWQSM) to address arsenic/fluoride contamination.
  - Despite progress, initiatives were **fragmented, infrastructure-driven, with limited behaviour change**.

III. Turning Point – 2014 Onwards

- **Swachh Bharat Mission (SBM-G)**
  - PM's 2014 call to make India **Open Defecation Free (ODF)**.
  - **Largest sanitation drive in the world.**
- Over **10 crore toilets built** → sanitation coverage rose from 39% (2014) to 100% (2019).
  - **Phase II:** Focus on Sampoorna Swachhata – sustaining ODF and managing solid/liquid waste.
- **Jal Jeevan Mission (JJM) – 2019**
  - Announced on 15 August 2019 as **Har Ghar Jal**.
  - **Vision:** Every rural household has **Functional Household Tap Connections (FHTCs)**.
  - **Standard:** 55 lpcd, BIS 10500 quality, reliable and affordable.
  - Subsumed NRDWP → shifted focus from fragmented supply to **universal household coverage**.

IV. Community-Led Transformation

- Gram Panchayats and communities became **core drivers** under SBM-G and JJM.
- **Village Action Plans (VAPs):**
  - Prepared by **VWSCs/Pani Samitis** with 50% women and SC/ST representation.
  - **5.2 lakh VWSCs** formed in **5.85 lakh villages** with community ownership.
- **SBM-G Phase II:**
  - Gram Panchayats led in sustaining ODF, retrofitting toilets, implementing SLWM.
  - **4.61 lakh villages** achieved ODF Plus Model status.

V. Technology and Innovation

- **Sanitation Technologies:**
  - **Twin Pit Toilets:** affordable, safe, manure-producing.
  - **Plastic Waste Units:** block-level shredding, recycling, SHG involvement.
- **Water Supply Innovations:**
  - Insulated pipes in Ladakh to withstand extreme cold.
  - Solar-powered rural water schemes → renewable energy aligned.
  - Floating supply schemes in Gujarat for flood resilience.
- **Digital and IoT Solutions:**
  - Flow meters, chlorine analysers, pressure sensors for real-time water monitoring.
  - 2,183 water testing labs + mobile labs (e.g., Haryana).
  - **WQMIS** for citizens to view results and register grievances.
- **Governance and Grievance Redressal:**
  - Helplines, call centres, mobile apps.
  - Social audits, Jan Sunwais, wall paintings for awareness.
  - **Dashboards:** SBM and JJM IMIS for real-time tracking.
- **Innovative Models:**
  - **Toilet Clinics (Bihar):** retrofitting, repair, janitors, SHG-led services with UNICEF support.

VI. Behaviour Change and Citizen Engagement

- **IEC and BCC Campaigns:**
  - Darwaza Band, Swachhagrahi movement, Jal Utsav, Gandagi Se Mukt Bharat, Swachh Sujal Shakti Samman.

  - **Tools:** folk media, school programmes, wall art, nukkad nataks.
- **Women's Central Role:**
  - **24.8 lakh women trained** in Field Test Kits (FTK).
  - **Women groups:** Jal Sahelis (Bundelkhand), Jal Sakhis (MP), Jal Sahiyas (Jharkhand).
  - **Roles:** plumbers, pump operators, conservationists, user charge collectors.
- **Community Ownership**
  - SHGs manage greywater reuse, toilet maintenance.
  - Women-led initiatives for solar water systems.
  - Retired defence personnel, schoolchildren, CBOs also involved.

VII. Convergence with Other Schemes

- **MGNREGS:** soak pits, recharge structures, toilets.
- **NHM:** WASH in health centres, waterborne disease monitoring.
- **Samagra Shiksha Abhiyan:** school sanitation and hygiene.
- **Aspirational District Programme:** integrated WASH in backward districts.
- **Climate Change Adaptation Plans:** resilient water and sanitation strategies.

VIII. Road Ahead – Viksit Bharat@2047

- Sustain **ODF Plus** villages and build *Swachh Sujal Gaons* (ODF Plus + Har Ghar Jal certified)
- Ensure **universal, equitable water access**, with focus on marginalised groups.
- Expand **digital transformation**: IoT, AI, GIS for tracking and planning.
- **Capacity Building** at scale: engineers, VWSCs, barefoot technicians.
- Strengthen Panchayats as **local utilities** and integrate WASH in GPDPs.
- Foster **inter-departmental collaboration** for holistic services.

IX. Conclusion

- In just a decade, India moved:
- From **sanitation deprivation → sanitation dignity**.
- From **water scarcity → water security**.
- From **top-down implementation → community-led development**.
  - WASH is not only about infrastructure but about:
- **Restoring dignity for women**.
- **Preventing disease**.
- **Creating livelihoods**.
- **Empowering communities**
- The WASH revolution shows how **policy, people, and progress** can converge to transform everyday life.
- As India enters **Amrit Kaal**, the journey continues with inclusivity, innovation, and the commitment of **leaving no one behind**.

TOPIC 5: WASH IN SCHOOLS AND ANGANWADIS

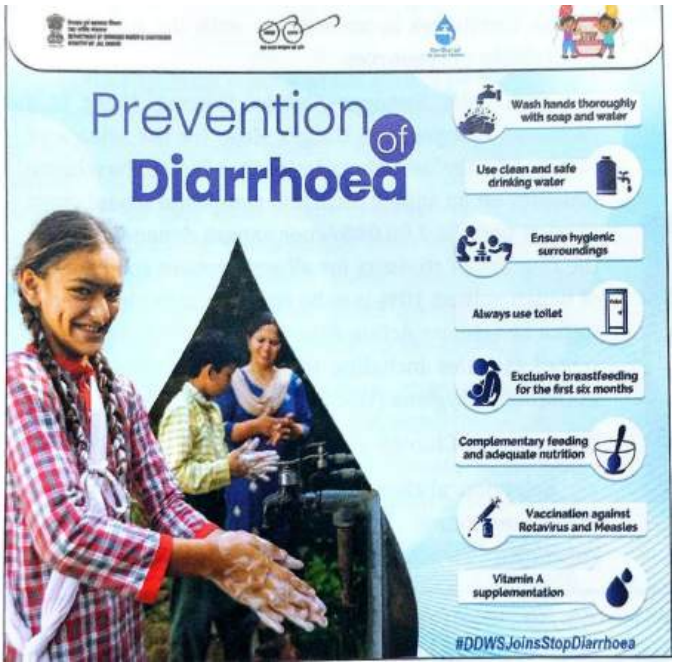
I. Introduction

- **Importance of WASH**: Water, Sanitation, and Hygiene (WASH) in schools and Anganwadi Centres (AWCs) is essential for:
  - Safeguarding children's health and dignity.
  - Promoting gender equality and reducing absenteeism.
  - Enabling quality education and better learning outcomes.
- **Policy Alignment**:
  - **National Education Policy (NEP) 2020** emphasizes WASH as part of holistic education.
  - **Sustainable Development Goals (SDGs)**:
    - **SDG 4:** Quality Education.
    - **SDG 6:** Clean Water and Sanitation.
- **Institutional Convergence:**
  - Department of School Education & Literacy (DoSE&L).
  - Department of Drinking Water and Sanitation (DDWS).
  - Ministry of Women and Child Development (MoWCD).
  - State/UT governments.

II. Swachhata Action Plan (SAP)

- **Samagra Shiksha Scheme (2018–19 onwards)**:
  - Strengthens government schools with NEP 2020 alignment.
  - Annual **Work Plan & Budget (AWP&B)** prepared by States/UTs and approved by the **Project Approval Board (PAB)**.
- **Budget Provisions**:
  - Separate **Budget Head** for **Swachhata Action Plan (SAP).**
  - Composite School Grant up to **₹1,00,000 per annum**, depending on student numbers.
  - At least **10% earmarked for WASH activities**:
    - Toilet maintenance.
    - Drinking water provision.

Sanitation and hygiene upkeep.

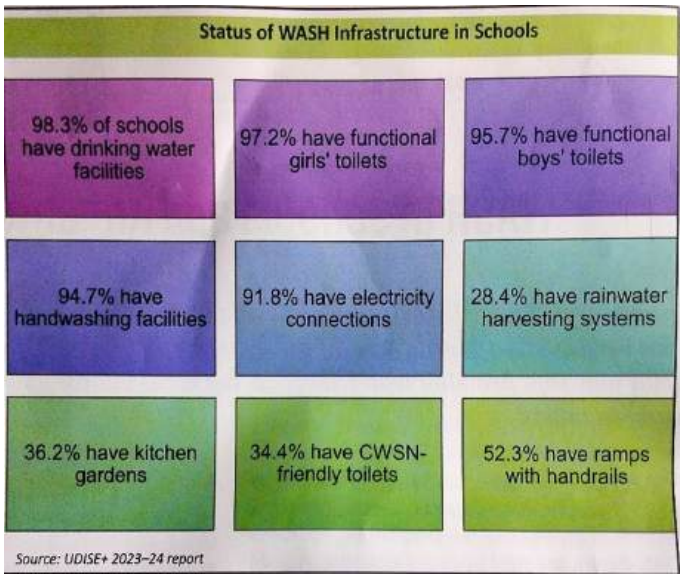


III. Behavioural Change and Community Engagement

- **Centrality of Behavioural Change**: Lasting WASH impact requires awareness and practices, not just infrastructure.
- **Key Initiatives**:
  - **Swachh Vidyalaya & SAP Funding** – support for handwashing, menstrual hygiene, and toilet use.
  - **Swachhata Pakhwada 2024 (1–15 Sept)**:
    - Participation of **7.06 lakh schools** and **7.43 crore students**.
  - **Swachh Bharat Diwas (2 Oct)**:
    - Celebrates **Jan Andolan** for Swachhata.
    - Preceded by **Swachhata Hi Seva (SHS) 2024** (17 Sept–2 Oct).
    - Theme: *"Swabhav Swachhata – Sanskaar Swachhata."*
    - Over **35,500 events**, **2.99 lakh schools**, and **2.89 crore students** took part.
- **Modes of Engagement:**
  - Mass handwashing demonstrations.
  - Clean school drives, competitions, poster contests.
  - Awareness rallies and pledge-taking.
- **Community Involvement**:
  - **School Management Committees (SMCs)** and **Village Health Sanitation and Nutrition Committees (VHSNCs)** mobilised for participation and ownership.

IV. Gender and Inclusive WASH Infrastructure

- **Gender-Sensitive Facilities**:
  - Separate toilets for girls.
  - Provision of sanitary products.
  - Safe disposal mechanisms to reduce absenteeism of adolescent girls.
- **Inclusion of Children with Special Needs (CWSN)**:
  - Infrastructure adaptations include ramps, handrails, and accessible toilets.
  - Focus on an equitable learning environment.



V. Source Sustainability and Climate Resilience

- **Role of Jal Jeevan Mission (JJM) & AMRUT 2.0**: Promote sustainable water sources and environmental resilience.
- **Interventions in Schools**:
  - Rainwater harvesting structures.
  - Rooftop water collection systems.
  - Greywater reuse through soak pits.
  - **School-based kitchen gardens** linking water conservation with nutrition and environment education.
- **Government Communication**:
  - Joint letters to States/UTs urging integration of sustainability and climate-smart practices in school WASH.

VI. Technological and Institutional Innovation

- **Digital Tracking Tools:**
  - Dashboards, mobile apps, and geo-tagging for real-time monitoring of WASH facilities.
- **Key Systems**:
  - **UDISE+ (Unified District Information System for Education)**: Collects nationwide data on WASH in schools.
  - **PRABANDH Portal**: Tracks planning, budgeting, and progress monitoring.
- **Impact**: Improves transparency, data-driven decision-making, and accountability.

VII. Institutional Coordination and Governance

- **Whole-of-Government Approach**:
  - Saturation of safe drinking water and tap connections in schools.
  - Ensuring greywater management and rainwater harvesting.
- **Review Mechanisms**:
  - Quarterly reviews at **Chief Secretary level**.
  - Monthly reviews at **Education Secretary level**.
- **National Coordination**:
  - Progress reports shared with DoSE&L for unified planning.

VIII. Way Forward

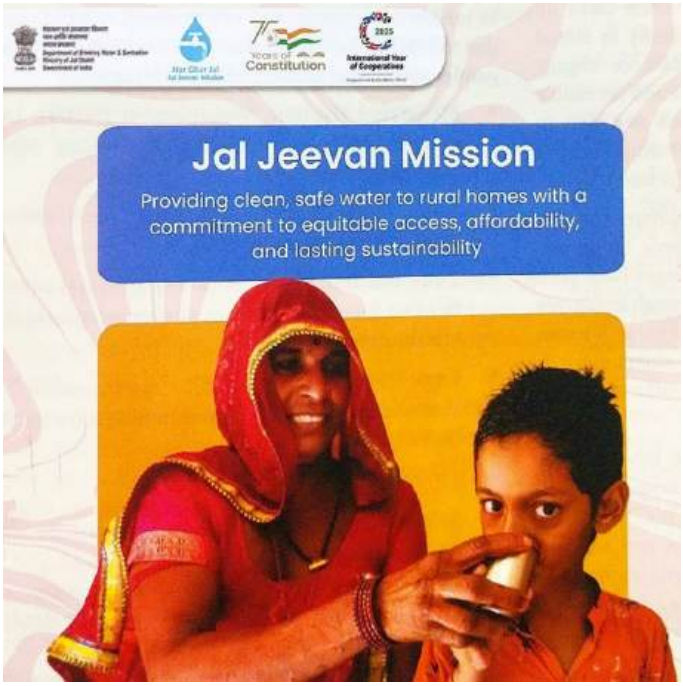
- **Saturation Approach**: Universal safe water and sanitation in schools and AWCs.
- **Priorities for States/UTs**:
  - Separate toilets for girls.
  - Continuous running water in toilets.
  - Tap connections for drinking water.
  - Rainwater harvesting and sustainable water sources.
- **Broader Vision**:
  - WASH as an enabler of:
    - Quality education.
    - Gender equality.
    - Child health.
    - Social equity.
- **Leadership Role**:
  - DoSE&L, in convergence with DDWS, MoWCD, Health and Family Welfare, and State/UT governments, driving the agenda with purpose and resolve.

TOPIC 6: EMPOWERING WOMEN & NURTURING CHILDREN THROUGH WASH

I. Background and Context

- **WASH as a Human Right:**
  - WASH stands for **Water, Sanitation, and Hygiene**.
  - Access to clean water, adequate sanitation, and safe hygiene is a **fundamental human right**.
  - It directly impacts **gender equality, women empowerment, and child development**.
- **Gender Dimensions of WASH:**
  - In many societies, especially in India, **women and girls bear the disproportionate burden** of sanitation management.
  - Unpaid domestic labour for water collection or sanitation consumes **several hours daily**, limiting opportunities for education, work, and community engagement.
  - Lack of **safe sanitation facilities** increases health risks, harassment, and vulnerability to violence.

- **Child Development and WASH:**
  - Poor WASH conditions are linked to **high rates of diarrhoea, malnutrition, stunting, and school absenteeism**.
  - Safe water and sanitation promote **better nutrition, disease prevention, and educational attainment**.
- **India's Efforts:**
  - Programs like **Swachh Bharat Mission (SBM)** and **Jal Jeevan Mission (JJM)** gave strong momentum to WASH improvements.
  - The **Ministry of Women and Child Development (MoWCD)** integrated WASH within its welfare schemes to ensure a **direct link between gender justice, nutrition, and child protection**.



II. Gender Equality Dimensions of WASH

- **Challenges Women Face:**
  - **Time Burden**: Women spend long hours collecting water and managing household sanitation.
  - **Safety & Dignity**: Lack of toilets exposes women to harassment and violence.
  - **Menstrual Hygiene**: Absence of facilities leads to school dropouts and loss of dignity.
- **Empowerment Opportunities:**
  - Access to nearby water sources reduces drudgery, enabling women to participate in **education, skill-building, and income generation**.
  - Women's participation in **community WASH committees** strengthens their role in **decision-making** and leadership.

III. Child Well-Being and WASH

- **Health Benefits:**
  - Reduction in **waterborne diseases** such as diarrhoea, cholera, and typhoid.
  - Improved sanitation reduces infection rates, boosting **nutrition and nutrient absorption**.
- **Educational Benefits:**
  - Functional toilets encourage **regular school attendance**, especially among girls.
  - Hygiene education improves **school readiness and performance**.
- **Early Childhood Development:**
  - Anganwadi Centres (AWCs) integrate hygiene practices, shaping **lifelong healthy behaviours**.
  - Reduces risk of disease transmission in communities.

IV. Major Initiatives by MoWCD Integrating WASH

(A) Mission Saksham Anganwadi and Poshan 2.0

- **Overview:**
  - Integrates **Poshan Abhiyaan, ICDS, and SAG (Scheme for Adolescent Girls)**.
  - Covers **10.16 crore beneficiaries** through a network of **14 lakh AWCs**.
  - Beneficiaries include pregnant women, lactating mothers, children (0–6 years), and adolescent girls.
- **WASH Contributions:**
  - **Community-Based Events (CBEs)**: Over **7 crore events** since 2018, sensitising families on hygiene.
  - **Home Visits**: Nearly **2 crore visits per month** to promote maternal and child hygiene.
  - **Infrastructure**:
    - **10.27 lakh AWCs** with functional toilets.
    - **12.53 lakh AWCs** with drinking water facilities.

- **Behavioural Change Efforts:**
  - **Poshan Maah (September)** and **Poshan Pakhwada (March-April)** as **Jan Andolans** for mass sensitisation.
  - Over **3.8 crore WASH awareness activities** reported since 2018.
- **Upgradation of AWCs:**
  - **2 lakh AWCs** to be transformed into **Saksham Anganwadi Centres** with:
    - Safe drinking water
    - Toilets
    - LED screens
    - Water filtration systems
    - Poshan Vatikas (nutritional gardens)
- **Scheme for Adolescent Girls (SAG):**
  - Targets **23 lakh girls (14–18 years)** in NE States and Aspirational Districts.
  - Focus on **nutrition, menstrual hygiene, peer education, and community awareness**.
- **Special Campaign 3.0:**
  - Nationwide cleanliness drives in AWCs and public spaces.
  - Mobilised **community volunteers, local governance, and officials** for sustained WASH practices.

(B) Mission Shakti (Including Beti Bachao Beti Padhao)

- **Focus:**
  - Addresses **gender discrimination** and emphasises the **well-being of girls**.
  - Promotes hygiene and sanitation to ensure girls remain in school.
- **Outcome:**
  - Aims to **break the cycle of gender inequality** caused by lack of sanitation facilities for girls.

(C) Pradhan Mantri Matru Vandana Yojana (PMMVY)

- **Nature of Scheme:** A **maternity benefit programme** supporting antenatal care and health awareness.
- **WASH Contribution:**
  - Counselling on hygiene during pregnancy and childcare.
  - Promotes **clean and safe environments** for mothers and infants.

(D) Mission Vatsalya

- **Swachhata Action Plan (SAP):**
  - Funds given to States/UTs to promote WASH in **Child Care Institutions (CCIs)**.
  - Annual action plans ensure structured WASH activities.

V. Impact of WASH Integration

- **On Women:**
  - Reduced physical burden of water collection.
  - Improved personal safety and dignity.
  - Greater participation in education and livelihood.
- **On Children:**
  - Reduced child morbidity and mortality.
  - Better nutrition outcomes and school performance.
  - Formation of healthy hygiene habits from early childhood.
- **On Communities:**
  - Greater awareness and behavioural change through **Jan Andolans**.
  - Ownership and sustainability through **community participation**.

VI. Conclusion

- WASH is not just an infrastructure goal but a **transformational enabler** of gender justice and child welfare.
- MoWCD has **mainstreamed WASH** into nutrition, education, maternal health, and child protection schemes.
- Continued success depends on:
  - **Convergence with other ministries** (health, education, rural development).
  - **Sustained behavioural change campaigns**.
  - **Community-led ownership models** for long-term sustainability.
- With inclusive policies and community-driven approaches, **India can ensure every woman and child benefits from safe WASH practices**, leading to a healthier, more equitable society.

TOPIC 7: HAR GHAR JAL – TRANSFORMING RURAL WATER GOVERNANCE IN INDIA

I. Background and Context

- **Civilisational and Cultural Significance of Water:**
  - In India, water is **more than a physical resource**—it is deeply woven into the **spiritual, cultural, and economic fabric**.
  - Sacred rivers like the **Ganga, Yamuna, Godavari, Kaveri, and Narmada** are worshipped, reflecting how water is considered the giver of life, purity, and renewal.
  - Ancient texts such as the **Rigveda** and **Arthashastra** mention water as the foundation of prosperity and governance.
- **Historical Water Management in India:**
  - Traditional systems: **stepwells, tanks, johads, baolis, ahars, pynes, and kunds** that sustained communities.
  - The colonial period saw neglect of community-led systems → shift to centralised supply.
  - **Post-independence:** Efforts like **Accelerated Rural Water Supply Programme (1972)**, **Swajaldhara Scheme (2002)**, and **National Rural Drinking Water Programme (2009)**—but fragmented and inadequate.
- **Persistent Crisis:**
  - Before 2019, **only 3.23 crore (16%) of rural households** had access to piped water.
  - Women spent **4–5 hours daily** fetching water, often from unsafe sources.
  - **Burden on health:** Waterborne diseases caused **21% of communicable diseases in India** (NITI Aayog, 2018).
- **Jal Jeevan Mission (JJM), 2019**
  - Launched as a **game-changing intervention** under the Ministry of Jal Shakti.
  - **Goal:** Functional Household Tap Connections (FHTCs) to every rural household by 2024.
  - **Core principles: equity, inclusivity, decentralisation, sustainability, and community ownership**.
  - Designed not just as an infrastructure scheme but as a **transformational public service model**.

II. Progress and Data Achievements

- **National Expansion:**
  - In **2019: 16% coverage**.
  - By **May 2025: 15.62 crore households (~80%)** have tap water at home.
- **States/UTs Achieving 100% Coverage**
  - Goa, Arunachal Pradesh, Haryana, Punjab, Telangana, Mizoram, Himachal Pradesh, Gujarat, Andaman & Nicobar Islands, Puducherry, Dadra & Nagar Haveli & Daman & Diu.
  - Represent a **mix of geographies** (mountains, islands, plains, deserts)—showing adaptability of JJM.
- **High-Performing States:**
  - Uttarakhand, Ladakh, Bihar, Nagaland, Sikkim, Lakshadweep – **>90% coverage**.
  - Other states like Uttar Pradesh, Madhya Pradesh, Rajasthan have moved from **<20% (2019) to >60–70% (2025)**.
- **Aspirational Districts:**
  - In the 112 most underdeveloped districts: coverage rose from **7.77% (2019)** to **79.13% (2025)**.
  - Demonstrates how JJM is also a **tool of regional equity and inclusive growth**.
- **Schools and Anganwadis:**
  - **Schools: 89.57% with tap water**.
  - Anganwadis and health institutions: **85.54% coverage**, crucial for child nutrition and maternal health.

III. From Infrastructure to Public Service

- **Beyond Pipes and Pumps:**
  - Mere construction of pipelines does not guarantee access.
  - Public service delivery involves **quantity, quality, regularity, and reliability**.
- **Service Standards Defined:**
  - Each household should receive:
    - **55 litres per capita per day (lpcd)**.
    - Water of **BIS 10500 quality standards**.
    - Supply at **predictable timings with reliability**.

- **Implementation Gaps:**
  - Power shortages affecting pumping.
  - Fragile sources like seasonal rivers or groundwater wells.
  - Weak grievance redressal systems.
  - Uneven performance of PHEDs across states.
- **Corrective Measures:**
  - **Jal Jeevan Survekshan** for ranking districts and states on functionality, not just coverage.
  - **Smart water meters and IoT monitoring** to track flow, pressure, and quality.
  - **Transformation of PHEDs** from engineering departments citizen-centric service utilities.

IV. Ensuring Scheme Sustainability

- **Source Sustainability:**
  - **Critical for long-term success**, since India is water-stressed (per capita availability <1600 m /year).
  - Measures include:
    - **Rainwater harvesting and aquifer recharge**.
    - **Afforestation and watershed restoration**.
    - **Spring-shed development in Himalayan and NE states**.
    - Campaigns like **Jal Shakti Abhiyan: Catch the Rain**.
  - Institutional Sustainability: Empowering local institutions for resilience.
- **Village Water & Sanitation Committees (VWSCs)** formed in each Gram Panchayat.
- **Multi-level governance: District Water & Sanitation Missions (DWSMs), State Water & Sanitation Missions (SWSMs)**.
- **Financial Sustainability:**
  - Community-led tariff collection ensures O&M costs are recovered.
  - Cross-subsidisation for weaker households.
  - Convergence with **MGNREGS, Finance Commission grants, and CSR**.
- **Social & Environmental Sustainability:**
  - Wastewater reuse in irrigation, gardening, groundwater recharge.
  - Gender inclusion ensures **women's voices** in water governance.
  - Local ecosystems protected from over-extraction.

V. Greywater Management

- **Scale of the Challenge:**
  - For every litre of supplied water, **70–80% turns into wastewater**.
  - With 15 crore households connected, this means **billions of litres of greywater daily**.
- **Management Models:**
  - **Household-level soak pits**.
  - **Community-level treatment plants (DEWATS-Decentralised Wastewater Treatment Systems**).
  - **Reuse for kitchen gardens, agriculture, and groundwater recharge**.
- **Case Study: Jhunjhunu, Rajasthan**
  - 250 households use **Decentralised Wastewater Treatment Systems (DEWATS)**.
  - Greywater treated and reused for irrigation.
  - Reduced dependence on over-exploited groundwater.

VI. Technology as an Enabler

- **Digital Infrastructure:**
  - Real-time **JJM dashboard** (village → state level).
  - Improves **transparency and accountability**.
- **Water Quality Monitoring:**
  - **IoT-based sensors** track contaminants.
  - **WQMIS (Water Quality Management Information System)** integrates data from 2,183 labs.
  - Citizen reporting through mobile apps.
- **Community Empowerment**
  - **24.83 lakh women trained** in water testing.
  - Field Test Kits (FTKs) distributed.
  - **Citizen Corner portal** gives public access to water quality data.

VII. Institutionalising Participation

- **Village Water & Sanitation Committees (VWSCs):**

- 5.14 lakh formed, with **50% women members**.
- Handle O&M, minor repairs, tariff collection, and grievance redressal.

- **Women and SHGs:**
  - Women are the **primary water managers at the household level**.
  - Their involvement in testing and decision-making ensures **trust and ownership**.
- **Nal Jal Mitra Programme:**
  - Trains local operators for pumps, treatment plants, and distribution systems.
  - Creates **rural water professionals** for sustainable maintenance.

VIII. Challenges and Road Ahead

- **Special Geographies:** Remote tribal belts, deserts (Rajasthan), Himalayan villages, islands (Andaman & Nicobar).
- Persistent Water Quality Issues:
  - **Fluoride (Andhra, Rajasthan)**, **arsenic (Bihar, WB, Assam)**, **salinity (Gujarat, coastal areas)**.
- **Climate Risks:** Droughts, floods, and erratic monsoons threaten supply stability.
- **Future Priorities:**
  - Shift from expansion to **long-term resilience**.
  - Strengthen **inclusive governance** and **ecological stewardship**.
  - Integrate **climate adaptation strategies**.

IX. Impact and Transformation

- **Women**:
  - Saved 3–4 hours daily → more time for livelihood, education, and rest.
  - Reduced risk of harassment while fetching water.
  - **Children:**
  - Fewer waterborne diseases.
  - Higher school attendance, especially girls.
- **Communities:**
  - Shift from **"beneficiaries" → "custodians"**
  - Collective ownership improves system reliability.
  - Water becomes a source of **dignity, empowerment, and resilience**.

X. Case Study: Kotri Village, Rajasthan

- **Before JJM:**
  - 550 tribal households depend on unsafe handpumps.
  - Women walked several kilometres daily.
- **Intervention:**
  - By July 2024, all households had tap water connections.
  - VWSC formed with support from PHED and UNICEF.
- **Financial Model:**
  - Monthly tariff collected → **₹11.54 lakh corpus by March 2024**.
  - ₹15,000 surplus per month for O&M.
  - Transparent village bank account.
- **Women's Role:**
  - 5 women trained in **bacteriological and chemical testing**.
  - Became **community scientists**, enhancing local trust.

XI. Conclusion

- **Har Ghar Jal** represents a **civilisational shift**—from scarcity and drudgery to dignity and empowerment.
- Success lies in **sustainability, inclusivity, and local ownership,** not just coverage.
- Water governance is evolving from a **state-driven supply model → community-owned service model.**
- **Future resilience depends on:**
  - Climate adaptation,
  - Technology integration,
  - Strengthening local governance, and
  - Empowering women.
- The mission transforms water from being a **symbol of deprivation** to becoming an **instrument of empowerment, equity, and resilience** in rural India.

TOPIC 8: WATER WISDOM IN ACTION

I. Introduction – The Philosophy of Water

- **Metaphorical Wisdom of Water:**
  - Water does not resist; it adapts and flows, finding its own path.

- Symbol of resilience, flexibility, and renewal.
- A lesson for humanity: adopting water's adaptability can make life flow like a Zen-like journey.

- **If Water Spoke – An Imagined Biography:**
  - **Water narrates its journey:**
    - Flowing since eons, carving landscapes, sustaining all life.
    - Lived in harmony with humans in earlier times.
    - Now burdened by human neglect – pollution, plastics, pesticides, industrial waste.
  - Expresses pain when rivers are dammed, oceans polluted, and aquifers depleted.
  - Reacts in anger through droughts and floods.
  - Yet remains resilient – always ready to respond positively when respected and conserved.

II. Water in Indian Culture and Heritage

- **Water Beyond a Commodity:**
  - Seen as **sacred, divine, and nourishing**.
  - Rivers like Ganga, Yamuna, Narmada, Kaveri are worshipped as goddesses.
  - Integral to rituals, ceremonies, and festivals.
- **Water-Centric Communities:**
  - For millennia, villages and towns developed around rivers, wells, tanks.
  - Water shaped **settlement patterns, agriculture, and livelihoods**.
- **Ancestral Wisdom**
  - Traditional systems reflected harmony with nature.
  - Forefathers treated water as a **community heritage**.
  - **Embedded values:** respect, responsibility, and collective management.

III. Geography and Diversity of Water Systems

- **India's Vast Landscape:**
  - 329 million hectares with diverse geography – deserts, coasts, plains, plateaus, mountains.
  - Water wisdom adapted to local contexts, monsoon cycles, and ecological needs.
- **Examples of Traditional Systems:**
  - **Rajasthan – Baolis (Stepwells):** Underground rainwater storage to prevent evaporation, also served as social gathering spaces.
  - **Maharashtra – Phad System:** Canal-based cooperative irrigation ensuring equitable sharing among farmers.
  - **Nagaland – Zabo System:** Integrated model combining water harvesting, forest protection, and terraced farming.
  - **Tamil Nadu – Eri Tank System:** Cascading chain of artificial lakes supporting irrigation, fisheries, livestock, and groundwater recharge.
- **Core Principles of Traditional Systems:**
  - Rainwater harvesting at the source.
  - Underground/surface storage to minimise evaporation.
  - Equitable distribution of water.
  - Ecological balance through catchment area protection.
  - Collective responsibility and community rules.

IV. Colonial Disruption of Water Wisdom

- **British Water Laws:**
  - Imposed **Riparian Rights** – landowners had rights to surface water.
  - Unlimited groundwater access granted → over-extraction.
  - State control increased, weakening community-led systems.
- **Shift in Priorities:**
  - Focus on canals, irrigation for cash crops, and economic extraction.
  - Disconnected people from traditional, sustainable practices.
- **Post-Colonial Continuities:**
  - Early independent India prioritised agriculture and economic growth.
  - Fragmented governance with multiple agencies managing water.
  - Sustainability is often overlooked in policy frameworks.

V. Contemporary Challenges and Policy Responses

- **Water Demand Projections:**
  - **843 BCM by 2025, 1,180 BCM by 2050** (NCIWRD).
  - Renewable water availability ~**1,126 BCM** → looming crisis.
- **National Water Policy (2012):**
  - Emphasises **conservation, sustainable use, integrated management**.
  - Recognition of water as a **finite, shared resource**.
- **National Water Mission (2008):**
  - Part of the National Action Plan on Climate Change.
  - **Aims:** conservation, efficiency, equitable distribution, participatory governance.

VI. Reviving Traditional Wisdom in Modern Times

- **Blending Past and Present:**
  - Not about romanticising history but about **integrating ancient insights with modern science**.
  - Resilience lies in harnessing both worlds.
- **Prime Minister's Call (2019):**
  - "**Jan Shakti for Jal Shakti**" – collective citizen action.
  - Whole-of-government and whole-of-society approach.
- **Jal Shakti Abhiyan (2019):**
  - Targeted water-stressed blocks in 256 districts.
  - Movement to revive water bodies, recharge aquifers, and adopt efficient practices.

VII. Mass Movements for Water Conservation

- **Jal Shakti Abhiyan: Catch the Rain (2021 onwards):**
  - Motto: *"Catch the rain, where it falls, when it falls."*
  - Localised rainwater harvesting and community-driven action.
  - Emphasis on transparent implementation and citizen participation.
- **Nari Shakti se Jal Shakti (2024 theme):**
  - Recognises women as key custodians of water.
  - Promotes gender-inclusive water governance.
- **Achievements:**
  - 1.71 crore conservation structures (check dams, recharge pits, rooftop harvesting).
  - 139 crore saplings planted to improve watershed health.
  - ₹1.17 lakh crore mobilised under MGNREGA, linking conservation with rural jobs.
  - 11.36 BCM groundwater recharge (2017–2024).
  - 712 Jal Shakti Kendras established as local hubs.
  - 634 district water conservation plans prepared using GIS.

VIII. Jal Sanchay Jan Bhagidari (JSJB) – 2024 Onwards

- **Vision and Target:**
  - Create **1 million recharge structures by 2025**.
  - Surpassed target: **2.2 million structures, 1.8 million completed** (as of May 2025).
- **Innovative Community Models:**
  - **Karmbhoomi se Matribhoomi:** Migrants funding recharge structures in native villages.
  - **Alwar School Model:** Schools integrated with rooftop harvesting and sanitation.
  - **CREDAI-Hydrologist Model:** Builders + hydrologists creating low-cost recharge pits (~₹1,500/unit).
  - **Gir Ganga Trust Model:** NGOs, philanthropists, and communities pooling resources.
- **Financial Convergence:**
  - Support from MGNREGA, AMRUT, PMKSY, CSR, philanthropy, and crowdfunding.
  - Ensures inclusivity, participation, and sustainability.
- **Monitoring:**
  - GIS-based Jal Sanchay Dashboard for transparency.
  - Technical expert verification of works.
- **JSJB 2.0 (2025):**
  - **New target: 2 million recharge structures**.
  - Expands momentum of grassroots water conservation.

IX. Water Use Efficiency (WUE) and Future Directions

- **Traditional Emphasis:** Ancient systems focused on equitable allocation and minimising wastage.
- **Modern Approach:**
  - Bureau of Water Use Efficiency promoting sectoral water audits.
  - Encouraging drip irrigation, micro-irrigation, recycling in industries.
- **Five R's of Water Wisdom:**
  - **Reduce, Reuse, Recycle, Recharge, Respect.**
  - Aligns with both traditional ethos and modern sustainability.

X. Conclusion

- **Challenges:**
  - Securing water for 1.4+ billion people and 6.5 lakh villages.
  - Rising demand vs finite availability.
- **Opportunities:**
  - Every village with one recharge structure can transform India's hydrological future.
  - Linking water security with livelihoods, climate resilience, and social harmony.
- **A Blended Wisdom:**
  - Combining **ancestral practices (rainwater harvesting, community stewardship)** with **modern tools (GIS, sensors, dashboards)**.
  - Cultivating not just infrastructure but an **ethos of responsibility and renewal**.
- **Final Thought:**
  - Water is not merely a resource – it is a **living force to be honoured and protected**.
  - By embracing water wisdom, India builds resilience for future generations while honouring its cultural heritage.

TOPIC 9: FROM TOILETS TO TAPS

I. Introduction

- Water, Sanitation, and Hygiene (WASH) are essential for human health, dignity, and sustainable development.
- Rural India has witnessed a historic transformation in WASH services through two flagship missions:
  - **Swachh Bharat Mission – Grameen (SBM-G)** – focused on sanitation.
  - **Jal Jeevan Mission (JJM)** – focused on safe drinking water.
- The progress has been revolutionary – from being labelled the *defecation capital of the world* to becoming **Open Defecation Free (ODF)**, and from water scarcity to **Functional Household Tap Connections (FHTCs)**.
- This journey reflects not just infrastructure growth, but a **shift in behaviour, dignity, and empowerment** for millions of rural Indians.

II. The Sanitation Crisis Before SBM-G

- **Open defecation was widespread:**
- Only **39% of rural households** had toilets before SBM-G.
- India faced severe public health challenges, with diseases like diarrhoea, cholera, and typhoid spreading widely.
- Child mortality rates were high due to unsafe sanitation.
- **Social and gender implications:**
- Women and girls faced **loss of dignity and safety**, defecating in open fields before dawn or after dusk.
- Lack of sanitation exposed women to **gender-based violence**.
- Menstrual hygiene management was extremely difficult.

III. Swachh Bharat Mission – Grameen (SBM-G)

- **Launch and Goals:**
- Launched on **2 October 2014** by Prime Minister Narendra Modi.
- **Aim: Eliminate open defecation by 2019**, coinciding with Mahatma Gandhi's 150th birth anniversary.
- **Achievements:**
- By **October 2019**, over **10 crore toilets** were built.
- India was declared **ODF** – 11 years ahead of the UN SDG 6 target.
- **Beyond Toilet Construction:**
- Movement for **behavioural change**, breaking deep-rooted habits.
- Introduction of **twin-pit toilet technology** for sustainable waste treatment.

- Conversion of waste into resources (waste-to-wealth).
- Strong **community participation** and **political commitment**.
- **Impact on Women:**
- Restored **privacy and dignity** for women and girls.
- Reduced risks to health and safety.
- Freed them from unsafe practices.
- **Community Engagement:**
- **Swachhagrahis** (volunteers) and **Nigrani Samitis** mobilised communities.
- Local leaders drove behavioural campaigns.
- Sanitation became a **people-led movement**.

IV. Transition to Water Access – Jal Jeevan Mission (JJM)

- **Launch and Vision:**
- Launched on **15 August 2019**.
- **Goal:** Provide **Functional Household Tap Connections (FHTCs)** to every rural household.
- **Progress:**
- In 2019, only **17% of rural households** had tap water.
- By **July 2025**, coverage increased to **80.98% (15.68 crore households)**.
- **Socio-Economic Benefits:**
- WHO estimates **5.5 crore hours saved daily** by reducing time spent fetching water.
- Women and girls now use saved time for **education, livelihoods, and leadership roles**.
- Improved nutrition, childcare, and health outcomes.

V. Gender and WASH – A Cross-Cutting Issue

- **Challenges Women Faced Earlier:**
  - Exposure to **violence and insecurity** due to lack of toilets.
  - Burden of walking long distances for water collection.
  - Strain on health, reduced schooling for girls, and loss of economic productivity.
- **Gender-Sensitive Measures in SBM-G & JJM:**
  - Women trained as **Rani Mistris** (toilet construction experts).
  - Participation as **CLTS trainers** and in **Nigrani Samitis**.
  - Encouraged membership in **Village Water and Sanitation Committees (VWSCs)**.
  - Increased women's role in **decision-making and governance** of WASH services.

VI. Community Participation – Jan Bhagidari

- **Core Principle** – Both SBM-G and JJM treat people not as beneficiaries but as **stakeholders**.
- **Under JJM**:
  - **VWSCs formed in every village**.
  - Responsible for **Village Action Plans (VAPs)**, infrastructure management, O&M, and water quality testing.
- **Under SBM-G:**
  - Community involvement was crucial in achieving **ODF status**.
  - **ODF Plus initiatives** introduced – covering **solid and liquid waste management**.
- **Result: Transparency, accountability, and ownership** of projects.

VII. Integration of SBM-G and JJM

- **Holistic WASH Ecosystem:**
  - **SBM-G** → Focused on sanitation.
  - **JJM** → Focused on water supply.
    - **Together** → Created an integrated approach to public health and environmental sustainability.
- **Innovations:**
  - **Greywater management** – treating and reusing wastewater.
  - Conservation-oriented practices to reduce pollution.
  - Combining water and sanitation for long-term sustainability.

VIII. Wider Impacts of the Journey

- **Public Health Benefits:**
  - Reduction in waterborne diseases.
  - Improved child survival rates.
- **Gender Empowerment:**
  - Toilets restored dignity.

- Tap connections gave women **time, opportunities, and empowerment**.

- **Socio-Economic Transformation:**
  - WASH improvements boosted productivity.
  - Freed up women's and children's time for **schooling, work, and leadership roles**.
- **Environmental Gains:**
  - Sustainable sanitation practices reduced pollution.
  - Greywater recycling and water conservation promoted ecological balance.

IX. Future Outlook

- **SBM-G 2.0 and Universal JJM Coverage**
  - Focus on sustaining ODF status.
  - Ensuring **100% tap water connections** in rural areas.
- **Blueprint for Future Development**
  - Lessons from the toilets-to-taps model can guide other sustainable development programs.
- **Cultural and Social Relevance**
  - Reflects the age-old adages:
    - "Cleanliness is next to godliness"
    - "Water is life"
  - Both sanitation and water are now seen as **pillars of progress, dignity, and prosperity** in rural India.

X. Conclusion

- The journey from **toilets to taps** is more than a development program – it is a story of **empowerment, dignity, and resilience**. Through SBM-G, India restored dignity and health by eliminating open defecation. Through JJM, it delivered safe drinking water to millions of households, transforming daily life, especially for women and children. The integrated WASH approach is not just improving health outcomes but also **strengthening gender equality, enhancing rural livelihoods, and building a sustainable future**.
- India's progress in WASH reflects a profound **shift in governance and society** – where sanitation and water are no longer seen as amenities but as **fundamental rights and shared responsibilities**.

TOPIC 10: MAKING EVERY DROP COUNT

I. Introduction

- Water is fundamental to life and central to the existence of rural communities in India.
- In rural India, water is tied to:
  - **Agriculture** – irrigation and crop sustainability.
  - **Health** – safe drinking water prevents diseases.
  - **Livelihoods** – animal husbandry, food processing, and small industries.
  - **Social harmony** – equitable access prevents conflicts.
- However, rural India's drinking water journey has been **long and complex**, shifting from community-managed traditional systems to government programmes, and finally to community-led governance models under the Jal Jeevan Mission (JJM).

II. Traditional Water Management Systems

- **Community-based and locally adapted systems** sustained rural India for centuries:
  - **Stepwells (Baolis):** Found across northern plains; social and utilitarian water sources.
  - **Tanka (Rainwater Harvesting):** In arid regions like western Rajasthan, households collected and stored rainwater.
  - **Village Ponds and Tanks:** Common across India; used for both drinking and irrigation.
  - **Gravity-based underground systems (Burhanpur, MP):** Ingenious channels supplied water to soldiers and citizens.
- **Customary practices** ensured equitable distribution and maintenance by communities.
- These systems balanced **availability, culture, and ecology**, but began to collapse due to:
  - Rising population.
  - Over-extraction of groundwater.
  - Chemical contamination (fluoride, arsenic, salinity).
  - Climate change-induced erratic rainfall.

III. Evolution of Drinking Water Governance in India

- **Government Interventions:**
  - **1972 – Accelerated Rural Water Supply Programme (ARWSP):** Focused on improving access.
  - **2009 – National Rural Drinking Water Programme (NRDWP):** Expanded infrastructure but lacked sustainability.
  - **2019 – Jal Jeevan Mission (JJM):** Paradigm shift – *"Har Ghar Jal"* with functional household tap connections.
- **Problem in early schemes:** Focus on infrastructure creation, not sustainable service delivery or ownership.
- **JJM brought a shift** – making safe, regular, affordable water supply a *citizen's right and responsibility*.

IV. Constitutional and Governance Framework

- **Water as a State Subject:** Entry 17, State List (Seventh Schedule).
- **73rd Constitutional Amendment (1992):**
  - Empowered **Panchayati Raj Institutions (PRIs)**.
  - Drinking water included in the **11th Schedule (Entry 11)**.
  - Gram Panchayats entrusted with planning, implementation, and management of water supply.
- **Jal Jeevan Mission:** Builds on this decentralisation:
  - Empowers **Village Water and Sanitation Committees (VWSCs)**.
  - Encourages **localised, need-based planning**.
  - Uses digital platforms for monitoring and transparency.

V. Key Principles and Components of Jal Jeevan Mission

JJM marks a shift from government-supplied schemes to **community-led water service delivery**, based on six pillars:

- **Service Delivery, not just Infrastructure:**
  - 55 litres per capita per day (lpcd).
  - Quality as per **BIS** standards.
  - Household-level connections with regularity.
- **Source Sustainability and Water Security**
  - Conservation, recharge, and greywater management.
  - Convergence with **MGNREGS, watershed projects, forestry schemes**.
- **Local Governance & Custodianship**
  - GPs and VWSCs operate as **service managers**.
  - Decentralised operation and maintenance (O&M).
- **Water Quality Monitoring & Surveillance**
  - Community-level testing with **Field Test Kits (FTKs)**.
  - 5 trained women per village for testing.
  - Sub-district labs for accuracy.
- **Capacity Building & Institutional Strengthening**
  - Training Panchayat members, SHGs, engineers, youth.
  - **Nal Jal Mitra Programme:** Youth/women trained for O&M and livelihoods.
- Jan Andolan – People's Movement
  - Promoting responsible water use.
  - **Inclusion:** "No one left behind."
  - Community ownership of infrastructure.

VI. Convergence with Other Flagship Programmes

JJM's strength lies in **synergy** with other national initiatives:

- **MGNREGS:** Supports water conservation and recharge works.
- **Swachh Bharat Mission (SBM-G):** Solid-liquid waste management, greywater reuse.
- **Jal Shakti Abhiyan (Catch the Rain):** Water harvesting and afforestation.
- **National Rural Livelihoods Mission (NRLM):** SHGs engaged in mobilisation, water quality testing, and O&M.
- **POSHAN Abhiyaan, ICDS, Education:** Promotes safe water, hygiene behaviour, and child health.

VII. Health and Social Impact

- **Public Health Benefits:**
  - **WHO (2023):** JJM could prevent **400,000 diarrhoeal deaths** and save **14 million DALYs (Disability-Adjusted Life Years)**.
  - Estimated savings of **USD 101 billion (~₹8 lakh crore)**.
  - **Nobel Laureate Michael Kremer**: Universal clean water could reduce infant mortality by 30%, saving **136,000 children annually**.
- **Empowering Women and Girls:**
  - WHO: JJM saves **5.58 crore hours daily**, of which women save **4.87 crore hours**.
  - Reduced drudgery, more time for **education, income generation, self-empowerment**.
  - Nearly **9 crore women** freed from fetching water are now engaged in productive work.
- **Impact on Children and Education:**
  - 35 lakh hours saved daily for school-aged children.
  - Dropout rates reduced from **17.5% (2018–19) to 12.61% (2021–22)** (UDISE).

VIII. From Dependency to Self-Reliance

- **Earlier model:** Government-dependent, frequent delays, breakdowns.
- **JJM model:**
  - Villages manage their own water utilities through GPs & VWSCs.
  - Responsibilities: water monitoring, tariff collection, preventive maintenance.
  - **Nal Jal Mitra** and SHGs provide local technical expertise.
  - Builds **financial sustainability, local employment, reliable services**.

IX. The Road Ahead

- **Vision:** Transform water supply from a **project** into a **public utility service**.
- **Micro-Utilities:** GPs & VWSCs manage village-level infrastructure.
- **Macro-Utilities:** States/Regional entities manage inter-village infrastructure.
- **Shift Needed:**
  - From *department-based approach* to *utility-based, citizen-centric governance.*
  - From *infrastructure construction → to long-term O&M and service delivery.*
- **Critical Needs:**
  - Political will and financing.
  - Large-scale behavioural change.
  - Integration of traditional knowledge with modern science.
  - Cross-sectoral collaboration.

X. Conclusion

- **Making Every Drop Count** is more than a slogan – it is a governance revolution.
- It transforms **villages from passive recipients to active managers** of water security.
- Through **ownership, accountability, and sustainability**, JJM is reshaping rural India.
- Safe, reliable, and equitable water supply is no longer a challenge but a **rightful entitlement**.
- The mission ensures that water – once a cause of hardship – becomes a foundation of **health, empowerment, and prosperity** for generations.

TOPIC 11: IEC & BEHAVIOUR CHANGE

I. Introduction

- India's journey in the **Water, Sanitation, and Hygiene (WASH) sector** over the past decade has been one of the world's most significant public health success stories.
- Two flagship programmes have been at the centre:
  - **Swachh Bharat Mission (SBM-G)** → From open defecation to Open Defecation Free (ODF) villages.
  - **Jal Jeevan Mission (JJM)** → From handpumps and unsafe sources to tap water at the household level.
- **Key lesson:** Infrastructure alone is insufficient. Without behaviour change, toilets remain unused and taps run dry.
- The **Department of Drinking Water & Sanitation (DDWS)** embedded communication as a core pillar, guided by the principle of **Jan Andolan (people's movement)**.

II. Communication as the Invisible Infrastructure

- IEC acted as the **backbone** of WASH transformation.
- Sustained success attributed to **4 Ps**:
  - **People** – citizen participation.
  - **Political leadership** – national vision and commitment.
  - **Public funding** – large-scale financial support.
  - **Partnerships** – civil society, media, private sector.
- **Innovative strategies used:**
  - Community Approaches to Sanitation (CAS).
  - Interpersonal Communication (IPC).
  - Community mobilisation for social norms.
- Mass media created aspiration, but **localised narratives** in folk formats made change relatable and lasting.

III. From Construction to Behaviour (SBM-G Phase I)

- Launched in **2014**, SBM-G Phase I was the world's **largest behaviour change campaign**, not just a toilet construction programme.
- **Key IEC tools and practices:**
  - **Community-Led Total Sanitation (CLTS):** Triggering collective responsibility.
  - **Participatory Rural Appraisal (PRA):** Mapping community challenges.
  - **Swachhagrahis:** Trained barefoot motivators for community mobilisation.
  - **360-degree campaigns:** Iconic drives like *Darwaza Band* promoting toilet use.
  - **Swachh Bharat Summer Internship:** Engaged youth in sanitation action.
  - **Celebrity endorsements:** Amitabh Bachchan and others made messages aspirational.
  - **Cultural formats:** Folk art, puppet shows, plays in local dialects.
  - **Children as change agents:** Taking hygiene messages home.
- These layers of communication built the social momentum that enabled **India to declare ODF status on 2 October 2019**.

IV. Behaviour Reinforcement (SBM-G Phase II)

- Phase II focuses on **sustaining ODF outcomes** and **Solid & Liquid Waste Management (SLWM)**.
- **Communication objectives:**
  - Prevent **"slippage"** (return to open defecation).
  - Make sanitation a permanent **way of life**.
- **Major campaigns and platforms:**
  - **Swachhata Hi Seva (SHS).**
  - **Swachhata Pakhwada.**
  - **Swachh Survekshan Gramin.**
- **IEC tools in Phase II:**
  - Digital & hybrid outreach (social media, regional radio, WhatsApp).
  - Gender-sensitive and disability-inclusive messages.
  - IEC materials guiding villages in SLWM planning and implementation.

V. Building Ownership for Water (JJM and IEC)

- **Launched in 2019**, Jal Jeevan Mission (JJM) aims at *Har Ghar Jal* – functional household tap connections.
- **IEC objectives under JJM:**
  - Create demand by emphasising **health, dignity, and time savings** for women and girls.
  - Build **community ownership** via **Village Water & Sanitation Committees (VWSCs)**.
  - Share **IEC/BCC strategy booklet** with States/UTs for uniformity.
- **Support mechanisms:**
  - Guidelines for logo usage, project boards, brochures, and toolkits.
  - Capacity-building workshops, media partnerships, and consistent messaging.
- **Key campaigns and outreach tools:**
  - TV campaigns (e.g., JJM animation films with a child's perspective).
  - Print, radio, outdoor publicity.
  - Participation in fairs and festivals.
  - Recognition – JJM's **Republic Day Tableau (2020)** won best tableau award.

VI. IEC Innovations

- Distinct innovations made behaviour change **relatable and aspirational**:

i. **Darwaza Band / Dobara Band Campaign:**
   - ♦ Powerful metaphor for ending open defecation.
   - ♦ Amitabh Bachchan as campaign ambassador.

ii. **Swachh Sundar Shauchalaya:**
   - ♦ Toilets promoted as clean, colourful, aspirational assets.
   - ♦ Community competitions enhanced pride and ownership.

iii. **Saucha Singh Mascot:**
   - ♦ Radio-based characters spreading friendly sanitation messages.
   - ♦ Focus on children and youth.

iv. **Swachhata Hi Seva (SHS):** Nationwide mobilisation drives every year before Gandhi Jayanti.

v. **100-Day Campaign (Schools/ Anganwadis):** Ensured tap connections in schools and Anganwadis during COVID-19.

vi. **Jal Utsav:** Celebrated water through cultural activities, competitions, exhibitions.

vii. **Azadi ki 75 Kahaniyan:** Real-life stories of WASH champions during Azadi ka Amrit Mahotsav.

viii. **Jaldoot Initiative (Assam):**
   - ♦ Students (Classes VIII–XII) trained as ambassadors for water, sanitation, and hygiene.
   - ♦ Adopted nationwide by CBSE schools.

VII. Women as Agents of Change

- Women play a **central role in grassroots change**:
  - ➢ Roles as **Jal Sakhis** and **Jal Sahyogis**.
  - ➢ Advocacy for safe water practices and hygiene within households.
  - ➢ Strong influence in mobilising communities.
  - ➢ Ensure that messages translate into **sustained practices**.

VIII. The Triple 'C' Approach

- DDWS follows **Triple C – Convergence, Capacity, Community**:
  - ➢ **Convergence:** Aligning WASH messaging with NHM, ICDS, NRLM.
  - ➢ **Capacity Building:** Training PRIs, SHGs, volunteers, and functionaries.
  - ➢ **Community Engagement:** Grassroots ownership, local solutions, cultural integration.
- Digital and hybrid communication (radio, WhatsApp, social media) further strengthened reach.

IX. Role of Social Media

- Social media emerged as a **powerful amplifier**:
  - ➢ **Platforms used:** Twitter (X), Instagram, Facebook, WhatsApp.
  - ➢ **Tools:** Hashtags(#), storytelling, community success stories.
  - ➢ Humanised the WASH missions and created emotional connect.
- **Result:** Messages reached **diverse audiences across geography and language barriers**, fostering a culture of participation and pride.

X. Inclusivity and Equity in Messaging

- **Inclusivity as a guiding principle:**
  - ➢ Gender-sensitive communication.
  - ➢ Disability-inclusive IEC.
  - ➢ Special focus on marginalised communities.
- **Children and youth as ambassadors:**
  - ➢ School activities, campaigns, and "Jaldoots" ensure intergenerational transmission of hygiene practices.

XI. From Awareness to Accountability – The Next Frontier

- The next stage of IEC must go **beyond awareness**, focusing on:
  - ➢ **Behavioural nudges** → making the right action the easy action.
  - ➢ **Social norms** → reinforcing community expectations.
  - ➢ **Gamification** → encouraging measurable participation.

- ➢ **Real-time dashboards** → enabling transparency and corrective feedback.
- Communication will ensure that water and sanitation gains are **preserved and deepened** over time.

XII. Conclusion

- India's WASH journey proves that **infrastructure + behaviour change = transformation**.
- Communication has acted as the **invisible infrastructure** that sustains change.
- The **4 Ps** (People, Political leadership, Public funding, Partnerships) created the enabling environment.
- The **Triple C approach** (Convergence, Capacity, Community) ensures inclusivity and sustainability.
- As DDWS continues to adapt, the focus is clear:
  - ➢ **Make sanitation and water a social norm.**
  - ➢ **Build community ownership for sustainability.**
  - ➢ **Reinforce resilience through convergence and innovation.**
- Rooted in participation and driven by people, India's WASH transformation stands as a **global model of behavioural change.**

TOPIC 12: LIGHT HOUSE INITIATIVE

I. Background

- **India's Sanitation Transformation:**
  - ➢ Before 2014, rural India faced widespread open defecation, affecting health, dignity, and development.
  - ➢ With the launch of **Swachh Bharat Mission-Grameen (SBM-G) Phase I in 2014**, a nationwide movement began.
  - ➢ Over **10 crore toilets were constructed**, and India was declared **Open Defecation Free (ODF) by 2019**.
- **Shift Beyond ODF:**
  - ➢ ODF declaration was not the end; challenges remained in:
    - ♦ Sustaining ODF outcomes.
    - ♦ Managing solid and liquid waste.
    - ♦ Embedding sanitation into governance and daily life.
- Hence, **SBM-G Phase II (2020-21)** was launched, focusing on ODF Plus villages and long-term sustainability.

II. Emergence of the Light House Initiative (LHI)

- **Concept:**
  - ➢ Launched in **2022** by the **Department of Drinking Water and Sanitation (DDWS)**.
  - ➢ Developed in partnership with the **India Sanitation Coalition (ISC)** and the **corporate sector**.
  - ➢ **Aim:** Support **75 Gram Panchayats (GPs)** to become **Light House GPs** to mark 75 years of India's independence.
- **Purpose:**
  - ➢ To act as **models of excellence** in sanitation and waste management.
  - ➢ To demonstrate community participation, convergence of schemes, and innovations.
- **Impact of Phase 1:**
  - ➢ Many GPs achieved Light House status and received **state-level recognition**.
  - ➢ Showcased **local innovations** like user-fee models, home composting, and circular economy approaches.
  - ➢ **Example: Nadimapalem (Andhra Pradesh)** won the *Healthy Grama Panchayath Award* for its self-sustaining waste management system.

III. Transition to Phase 2

- **Why Phase 2?**
  - ➢ Phase 1 proved success at the GP level.
  - ➢ To scale transformation, the focus shifted to **Blocks** instead of just villages.
  - ➢ Aimed at achieving **saturation coverage** and **system-level impact**.
- **Alignment with Global Goals:**
  - ➢ Supports **SDG Target 6.2** – universal access to adequate sanitation by 2030.
  - ➢ Moves from building toilets to building **trust, ownership, and resilience** in rural sanitation systems.

IV. Key Features of Phase 2

- **Geographical Spread:**
  - Scheduled from **July 2024 – March 2025**.
  - Covers **43 Blocks** in **37 districts across 14 States/UTs**:
    - Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, and Uttar Pradesh.
- **Partnerships:**
  - The coalition includes DDWS, ISC, and corporate partners like **ITC, Ultratech, HCL, Nayara Energy, Jamna Auto, JSPL, Hindalco, and BIPF**.
  - Each Block will demonstrate the **ODF Plus Model** with support from government, corporates, and communities.
- **Core Objectives:**
  - Contribute to **Government of India's sanitation vision** and SDG 6.2.
  - Demonstrate **model ODF Plus Blocks** for replication elsewhere.
  - Showcase **sustainable O&M models** for Solid and Liquid Waste Management (SLWM).
  - Leverage **corporate expertise, funding, and technology** for long-term impact.

V. Approach and Methodology

- **Community-Centric Implementation**
  - SHGs, VWSCs, and local champions lead planning and implementation.
  - Focus on **community ownership and leadership**.
- **Technology and Innovation:**
  - Integration of technology for **operation, maintenance, and monitoring**.
  - Adoption of **user-fee models** for sustainability.
- **IEC and Behaviour Change:**
  - Extensive **Information, Education, and Communication (IEC)** campaigns.
  - **Innovative tools:** mural art, street plays, and visual awareness campaigns.
  - **Example: Khankitta GP (Bihar)**, with ITC's support, transformed its sanitation landscape through IEC and SLWM infrastructure.
- **Participatory Planning:**
  - Village walks, Participatory Rural Appraisal (PRA), and surveys to identify gaps.
  - SHG-led waste management is linked to livelihood opportunities.
  - **Example: Malthan and Dahiwadi GPs (Maharashtra)** integrated SHGs into waste management while promoting livelihoods.

VI. Deliverables and Expected Impact

- **Creation of 43 Model Blocks:** Each Block will demonstrate **sustainable sanitation ecosystems**.
- **Community-Led O&M:**
  - Women's SHGs and VWSCs to lead waste management and O&M.
  - Corporates to provide **bridge funding** and technical expertise.
- **Case Studies:**
  - **Mithoi GP (Gujarat)**: With Nayara Energy's support, introduced toilet retrofitting, wastewater systems, and visual IEC.
  - **Solan District (Himachal Pradesh)**: Ultratech supported construction of drains, soak pits, and compost pits; user fee of Rs. 80/month ensured sustainability.
  - **Paschim Chayagaon GP (Assam)**: Tata Trusts helped build compost pits and soak pits; 80% wet waste processed at household level, linking sanitation to organic farming.

VII. Challenges and Opportunities

- **Challenges:**
  - Convergence of schemes and fund flows remains uneven.
  - Delays in integrating **Village Action Plans (VAPs) into GPDPs**.
  - Need for clearer corporate role definitions.
- **Opportunities:**
  - Promote **SHG-led user fee models** for O&M.
  - Adopt **technology-driven monitoring and fee collection**.
  - Leverage **urban sanitation learnings** for rural adaptation.
  - Enhance inclusivity for **marginalised groups, women, and persons with disabilities**.

VIII. Towards Sampoorna Swachhata

- **Vision:**
  - LHI Phase 2 goes beyond toilets and waste systems.
  - It represents India's march towards **Sampoorna Swachhata (total, inclusive, and lasting sanitation)**.
- **Core Principles:**
  - **Partnerships** deepen through government, corporates, and civil society.
  - **Communities lead** the planning and execution..
  - **Sustainability and resilience** are institutionalised.
- **Long-Term Impact**
  - Every village becomes a **beacon of clean, healthy living**.
  - The initiative strengthens India's **national roadmap** for sanitation and health security.