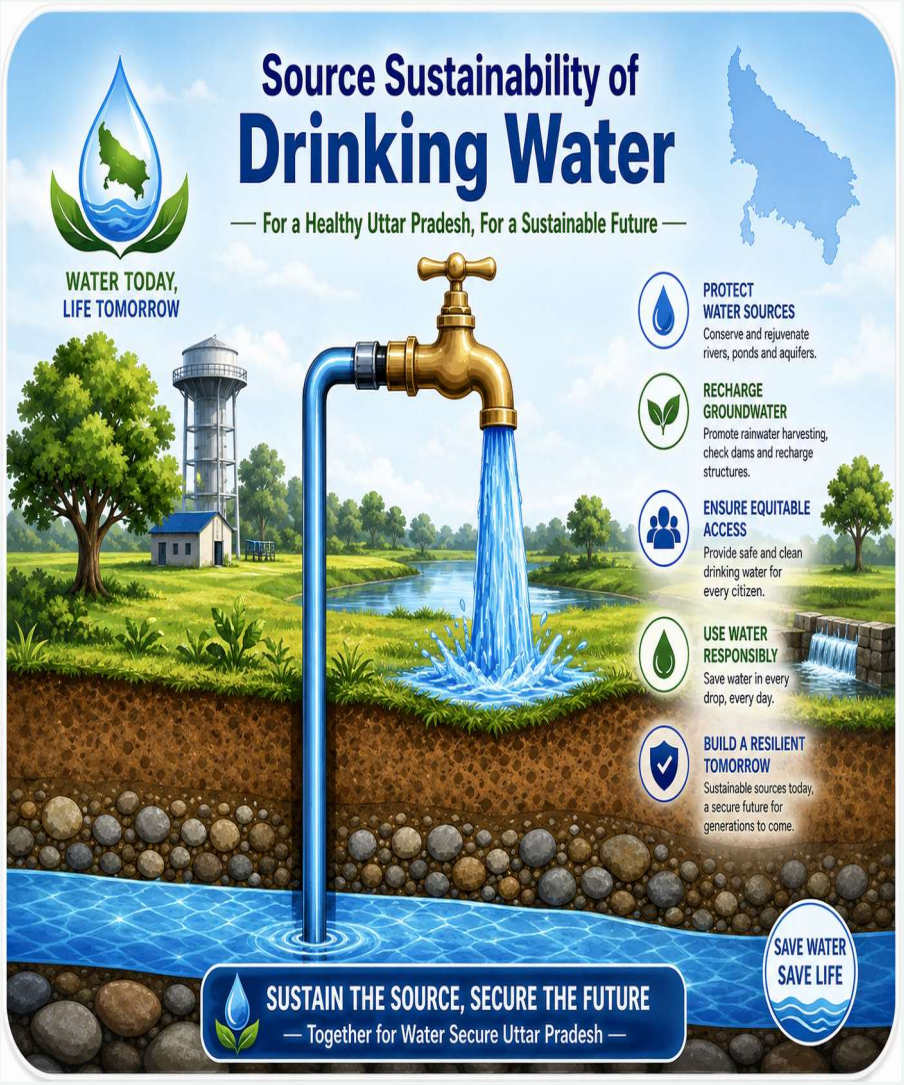


Government of Uttar Pradesh | India Water Week 2026

Source Sustainability in Uttar Pradesh

A convergence-based, community-centric approach to ensuring reliable water supply for every household — supported by sustainable sources.

Anupam Srivastava
Executive Engineer & PA to Director
Ground Water Department
Namami Gange & Rural Water Supply Department,
GOVERNMENT OF UTTAR PRADESH

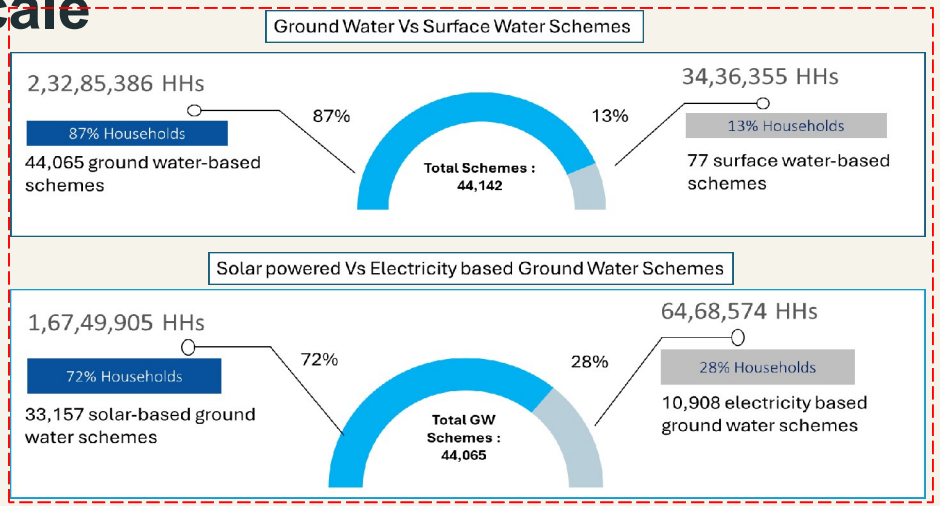
September 25th 2026

01 | THE SCALE

Uttar Pradesh: water supply at scale

The next challenge is to make this infrastructure dependable over the long term.

- **No. of Districts** • 75
- **No. of blocks** • 826
- **No. of panchayats** • 58,234
- **No. of villages** • 97,073
- **No. of households** • 2.67 Cr.
- **Total Rural Population** • 16.66 Cr.
- **No. of water supply schemes** • 44,142
- **No. of FHTC's achieved till date (Since the launch of JJM)** • 2.37 Cr.
- **Total No. of FHTC's achieved till date** • 2.42 Cr.



Major Infrastructures	Target	Achievement	%
Intake Wells	73	63	86.30%
Water Treatment Plants	73	63	86.30%
CWRs & OHTs/ESRs	39,905	39,225/15,876	98.29%
Tube wells & Pump Houses	38,879	37,416	96.24%
Chlorination Plants	21,127	18,994	89.90%
Transmission & Distribution networks in Km	5,60,033	5,05,516	90.27%

Source: Source Sustainability in Uttar Pradesh | JJM infrastructure figures in source presentation

Groundwater: a limited natural resource

A common pool resource supporting drinking water, food security and economic activity

Water is a common and limited natural resource (water is a common pool resource), essential for all living organisms and plants and the basis of economic activities and development.
An important source of drinking water and food security.

About 90% of domestic use and 85% of industrial use in the State depend on groundwater.

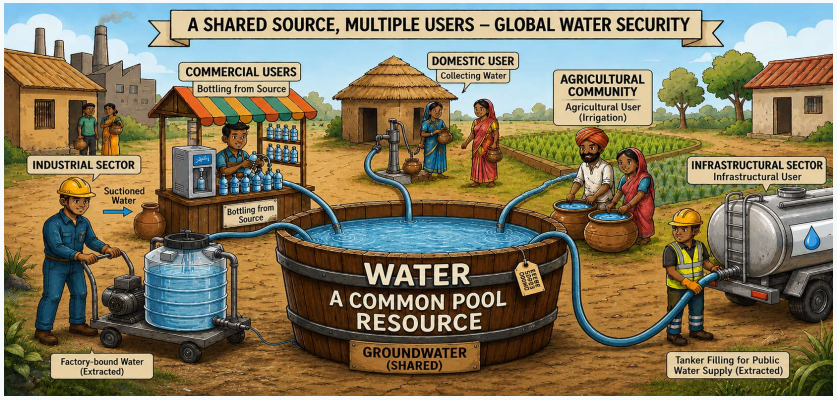
83% **of irrigation in the State depends on groundwater sources.**

STATUS OF GROUNDWATER EXTRACTION

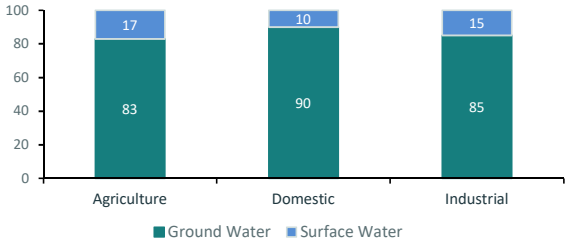
According to the latest Groundwater Resources Assessment for 2025, the State's total annual groundwater extraction is 46.89 BCM (Billion Cubic Metres), with the sector-wise details as follows:

Sector	Annual Groundwater Extraction (BCM)	Total Use Percentage
Agriculture / Irrigation	41.34	88.16%
Domestic Use	5.18	11.04%
Industrial Sector	0.37	0.79%
Total	**46.89**	**100%**

WATER AS A COMMON POOL RESOURCE



DEPENDENCE ON GROUNDWATER RESOURCES IN DIFFERENT SECTORS



46.89
BCM annual groundwater extraction

Infrastructure is not the end-point

Sustainable water means a nation that can be:

- ❑ water self-sufficient: ensuring there is enough water to meet multiple sectoral needs,
- ❑ Water supply will remain consistent, despite climate change impacts,
- ❑ Requires effective and holistic management of water resources. There are now multiple demands on water resources, which drive the need for sustainable, integrated and holistic water management.



KEY MESSAGE: **Source sustainability turns a water-supply asset into long-term water security.**

A delivery architecture centered on the village

Gram Panchayats and VWSCs connect planning, implementation, operation and protection.



01	**Secure reliable water availability**	Maintain adequate sources for rural water supply.
02	**Protect & replenish local sources**	Ponds, recharge zones, catchments and groundwater.
03	**Improve water-use efficiency**	Promote efficient irrigation and demand management.
04	**Embed community ownership**	Planning, monitoring, O&M and source protection.

Planning • O&M • Monitoring • Source protection

Source sustainability: four linked actions

A local source is sustainable only when resource assessment, planning, implementation and monitoring operate as one cycle.

01
ASSESS
Aquifer, demand, local sources

→

02
PLAN
Village water security + convergence

→

03
IMPLEMENT
Recharge, restoration, efficiency

→

04
MONITOR
Groundwater + supply + source condition

Departments working together — not in isolation

The State is actively promoting convergence among departments to ensure investments complement rather than duplicate each other.

01 Water Supply
Jal Jeevan Mission and state schem

02 Groundwater
Aquifer assessment and monitoring

03 Minor Irrigation
Check dams, ponds, recharge pits

04 Rural Development
Catchment protection and conservation

05 Panchayati Raj
Local governance and community action

Scientific groundwate management as the technical backbone

Monitoring and spatial assessment convert water data into actionable planning inputs.

Real-time monitoring

Groundwater monitoring infrastructure generating live data

Aquifer-based assessment

Mapping water-stressed areas and recharge potential.

Evidence-based planning

Technical inputs guiding recharge and sustainability interventions.

Planning logic: data → diagnosis → intervention → monitoring → adaptive management

Demand + supply: manage water use while strengthening the source

The framework combines efficiency measures with physical recharge and ecosystem restoration.

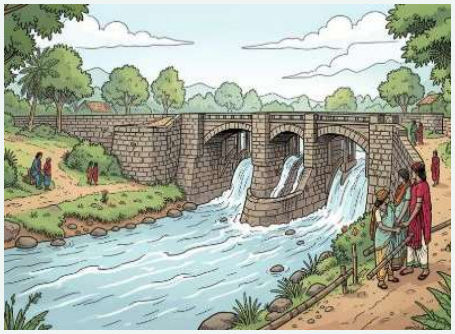
DEMAND-SIDE

- Drip & sprinkler irrigation
- Crop selection / diversification
- Precision agriculture
- Water-saving devices
- Water audits & public awareness
- Greywater recycling and reuse
- Pricing / tariff mechanisms

SUPPLY-SIDE

- Artificial recharge & rainwater harvesting
- Recharge wells / shafts
- Check dams & percolation ponds
- Protection of natural recharge zones
- Wetland and vegetation conservation
- Groundwater quality monitoring
- Drought-resilient water sources

Four recurring intervention types form the visible backbone of local recharge and conservation.



Check dams

Slow runoff • recharge groundwater



Pond rejuvenation

Storage • recharge • traditional source



Recharge pits

Route rainfall to aquifers



Watershed works

Protect catchments • reduce runoff

Water Conservation & Recharge at Scale

CAPTURING • STORING • RECHARGING

Water conservation efforts have been undertaken through diverse initiatives, including the construction of check dams, ponds/tanks, trenches, and rooftop rainwater harvesting structures. The status of these implemented structures is as below:

29,766
Check Dams

90,855
Pond / Tank

20,511
Trench

16,488
Rooftop Water Harvesting Structure

4,609
Other Rainwater Recharge Structures

1,76,752
Other Water Conservation Structure





Examples from implementation: check dams / ponds & tanks

RESTORATION + RECHARGE

Restore what already stores water — then improve its recharge function

Traditional water bodies and reuse/recharge structures extend the life of local sources.

1,34,284
Traditional water bodies renovated

93,052
Soak pits

39,615
Other reuse / recharge

Stabilization ponds: 121

Data Source: https://jsactr.mowr.gov.in
(Status From 22.03.2021 to 26.05.2026)

Treat the catchment to protect the source







Watershed works and afforestation extend source sustainability beyond the water structure itself.

8,08,960
Watersheds developed

5,192
Gully plugs

1,069
Percolation tanks

3,096
Staggered trenches

Intensive afforestation involves concentrated efforts to plant and cultivate forests, contributing to environmental conservation, biodiversity enhancement, and sustainable land management practices. Under this mission the intensive afforestation has been vigorously implemented over the period of time.

Nursery plants and plantation are presented as implementation outputs for intensive afforestation.



INTENSIVE AFFORESTATION

4,19,01,980 Nursery plants

6,07,55,351 Plantation

CATCHMENT PROTECTION → RECHARGE → ECOLOGICAL RESILIENCE

Data Source: https://jsactr.mowr.gov.in
(Status From 22.03.2021 to 26.05.2026)

VWSCs + Gram Panchayats: from planning to protection

Local institutions are positioned as custodians of the full water cycle.



1	**Planning**	Village water security plans and demand assessment
2	**O&M**	Managing local infrastructure and water sources
3	**Monitoring**	Tracking water availability and source condition
4	**Protection**	Safeguarding sources from contamination and over-extraction

Atal Bhujal Yojana demonstrates a community-led model for demand management and groundwater sustainability.

Turn awareness into a local water movement

Behaviour change is treated as infrastructure for long-term sustainability.

Community Support (ISA)

163 Agencies • 58,273 GPs • 826 Blocks

Goal: Facilitate community-driven approaches & maximize local participation.



IEC Campaigns

Mass Sensitization Campaign

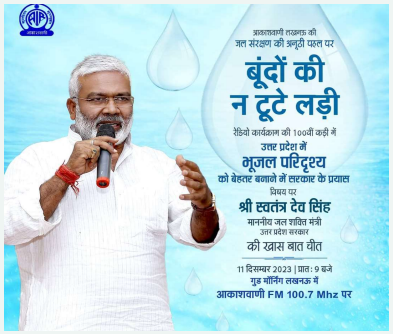
Water conservation, quality, health & resilience

Goal: Empower local ownership in operating, maintaining & managing schemes.











Ground Water Week **16–22 July annually**

Uttar Pradesh is the only state in the country, which dedicate one week from 16th to 22nd July every year as a Ground Water Week to run intensive water awareness campaign.

To foster awareness and develop JAN ANDOLAN to JAL ANDOLAN, Government initiated involvement of local water heroes/Jal Yoddhas.

Under this, State Government has conducted JAL SHAKTI YATRA from Lucknow to Banda and in Meerut district under the leadership of Padma Shree Awardee Shri Uma Shankar Pandey.



Jal Marathon

Youth & public mobilisation



Aviral Jal Abhiyaan

District-led engagement



Jal Gyan Yatra (JGY)

75 Districts • 10,000+ Children

Efficiency + community + source actions are moving together

The source presentation reports measurable changes in farm water-use efficiency and large-scale conservation activity.

4.27% → 9.5%

Micro-irrigation coverage

4.27% → 9.5% irrigated-area coverage in Atal Jal GPs

958%

ABHY micro-irrigation area

1,729.58 ha → 18,999 ha

1,34,284

Water bodies renovated

1,34,284 traditional water bodies

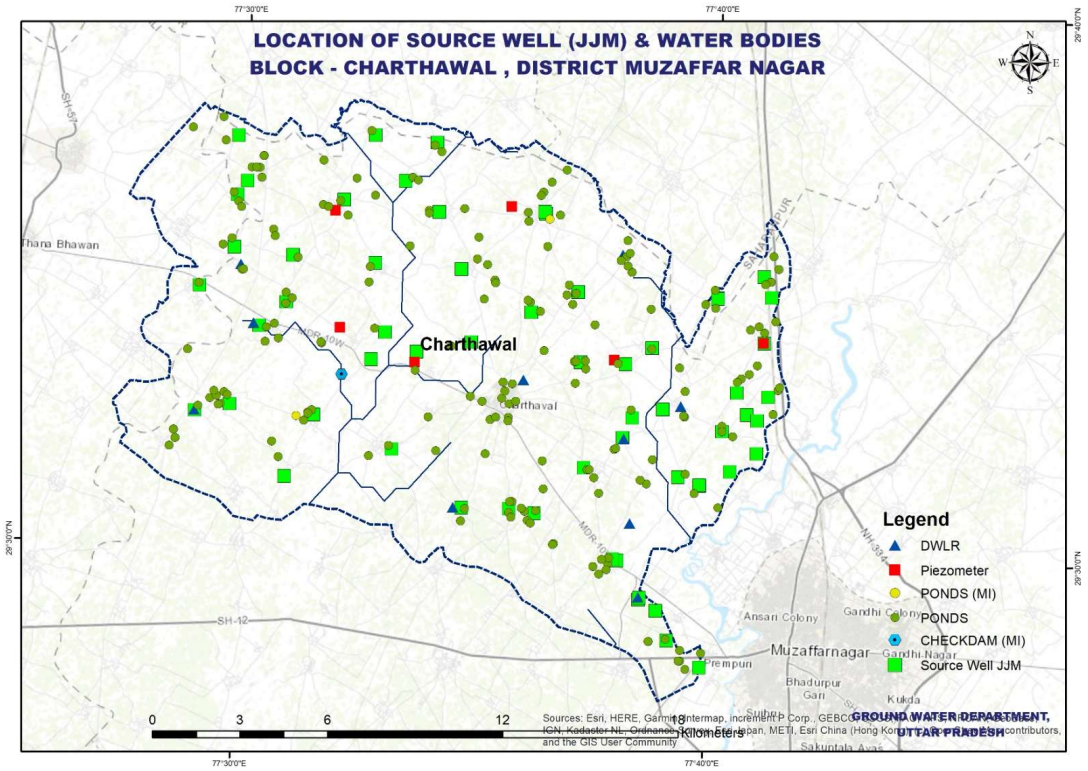






Charthawal Block: Study Area & Groundwater Status

Case study on methodology adopted for JJM source sustainability assessment



GIS map: JJM source wells, observation points and water bodies

STUDY PROFILE

BLOCK — **Charthawal, Muzaffarnagar**
68 villages

GROUNDWATER STATUS — **Critical**
91.64% extraction stage • GWRE 2024

JJM SOURCES — **65 operational schemes**
Groundwater-dependent drinking water schemes

HYDROLOGICAL ASSETS — **196 structures**
Water bodies & recharge structures

PILOT STUDY — GIS-BASED SOURCE SUSTAINABILITY

166 — **ponds within 1 km**
of JJM source schemes

557,760 m³ — **potential resource gain**
through pond rejuvenation

65 — **source wells**
for which sustainability is targeted

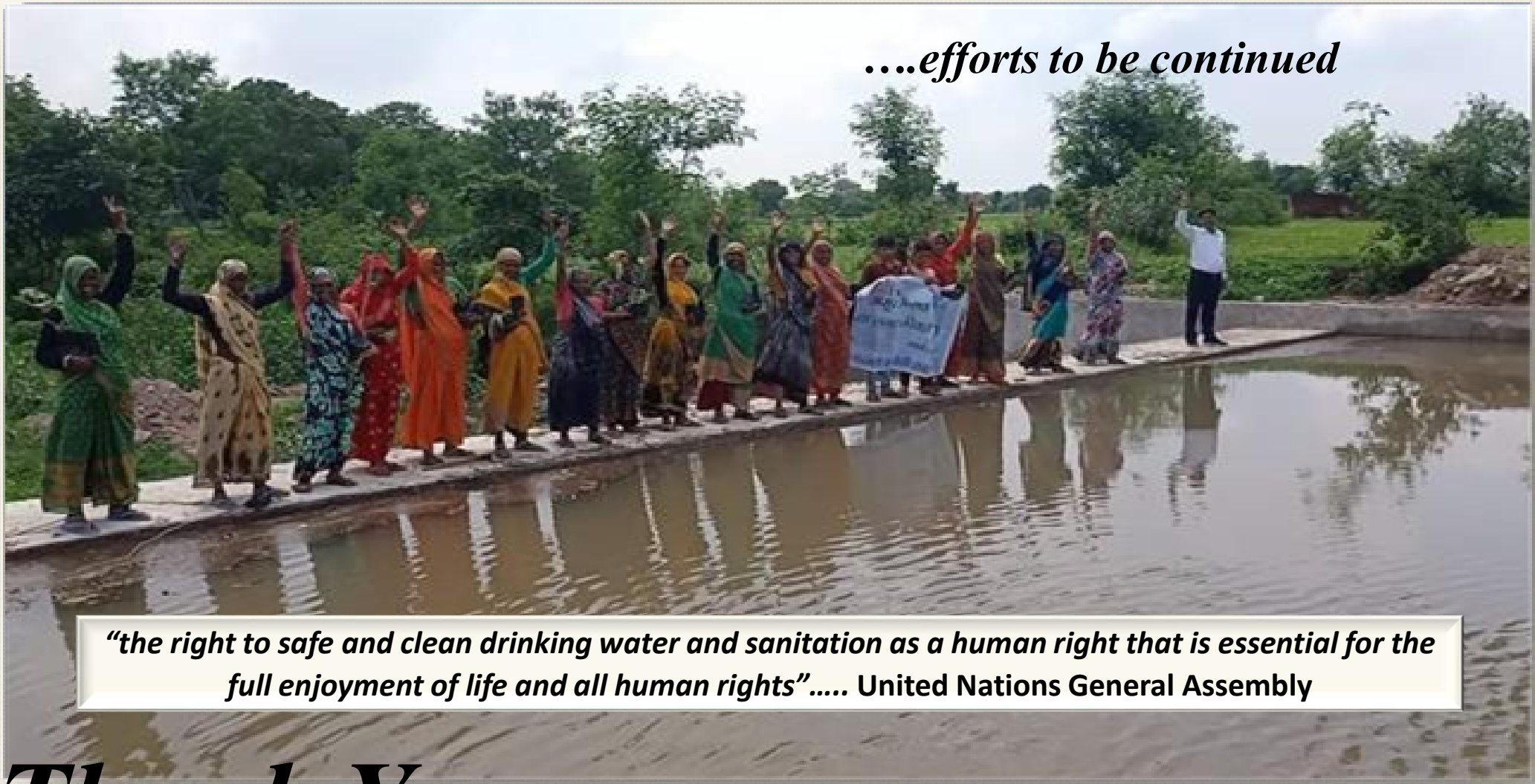
1 km — **GIS screening radius**
used to identify nearby ponds

From connections to reliable water security

The next phase is to institutionalise source sustainability as a continuous village-level management cycle.

01	**Convergence**	Departments work together and plan around the same local source.
02	**Community ownership**	GPs and VWSCs lead local action.
03	**Scientific management**	Groundwater and source data guide decisions.
04	**Water-use efficiency**	Scale micro-irrigation and demand management.
05	**Long-term security**	Protect the source behind every connection.

THE MESSAGE **Reliable water supply for every household ultimately depends on sustainable local sources.**



….efforts to be continued

"the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights"….. **United Nations General Assembly**

Thank You