



# Developing Monitoring & Evaluation Framework for UPSAPCC 2021-2030: Jal Mission



Environment, Forest and Climate Change Department  
Government of Uttar Pradesh



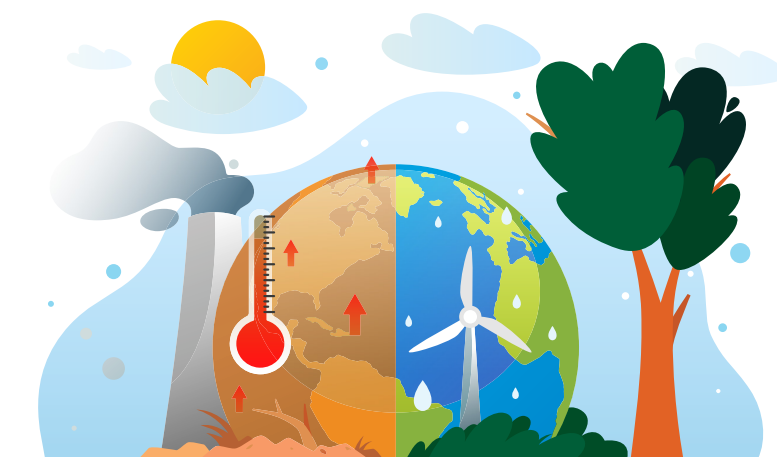
## Introduction

The threat of climate change has become more and more real by every passing day. It is a challenge that humanity has to face as one and that is why international treaties like the Paris agreement 2015 and the pathway to sustainable development, as envisaged under Sustainable Development Goals (SDGs)- Agenda 2030 have been shaped.

The Indian government too had framed the the National Action Plan on Climate Change (NAPCC) of India in 2008. Over time each state has adapted these and framed their own State Action Plan on Climate Change (SAPCC) - twice, earlier in 2009 and an updated one in more recent years. In case of the state of Uttar Pradesh, this was done in 2021.

There are eight consolidated missions under the UPSAPCC 2.0 namely Green UP Mission, Sustainable Agriculture Mission, Jal Mission, Human Health Mission, Enhanced Energy Efficiency and Green Energy Mission, Sustainable Habitat Mission, Disaster Management Mission and Strategic Knowledge Mission.

But to successfully implement each of these missions, one needs a system to monitor and evaluate the various actions being taken under them.



## About the Jal Mission

UP is one of the states rich in water resources. However, due to uneven distribution and inefficient utilization, water availability and distribution remains one of the major issues concerning the state. With an increased dependency on ground water for irrigation and drinking water, the water resources in the state are under acute stress. This mission tries to unravel and address some of these vulnerabilities. The Jal Mission has a total of five strategies and 26 action points spread across the following diverse issues:

- Augmentation of surface water
- Augmentation of groundwater
- Demand-side management across sectors to improve water usage efficiency
- Containing floods

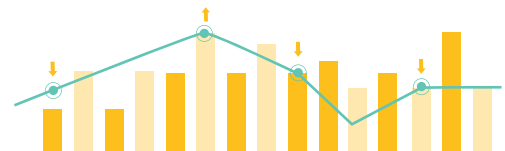


## An oversight of the nature of actions and strategies across the eight missions of UPSAPCC 2021-30

No	Mission	Strategies	Action Points	Adaptation	Mitigation	Both
1	Sustainable Agriculture Mission	5	19	18	-	1
2	Jal Mission	5	25	21	-	4
3	Green UP Mission	5	20	6	10	4
4	Enhanced Energy Efficiency and Green Energy Mission	6	37	1	32	4
5	Sustainable Habitat Mission	9	35	15	9	11
6	Human Health Mission	5	31	24	-	1
7	Disaster Management Mission	2	10	10	-	-
8	Strategic Knowledge Mission	4	10	10	-	-
lk	<b>TOTAL</b>	<b>41</b>	<b>187</b>	<b>104</b>	<b>51</b>	<b>25</b>



## Why an M&E Framework for the revised UP SAPCC?



### Meet the Goals

Monitoring and evaluation (M&E) frameworks are essential for ensuring that climate change action plans are effective in achieving their intended goals.

### Keep track of Plans

It is crucial because it guarantees better evidence-based planning and tracking and aids in the identification of pertinent activities through the creation and operationalization of a framework.

## Course Correction for the path ahead

Moreover, M&E is critical since gaps identified over time reveal mistakes, offer paths for learning and improvements, and provide opportunities to build on expertise and knowledge. A comprehensive M&E framework also allows policymakers and implementers to identify successes and challenges and make data-driven decisions to adjust their strategies accordingly.

## Align with other state plans

With an eye on the goal, the metrics developed in the M&E framework also helps define roles and responsibilities better. The framework also leverages existing monitoring systems under other programmes in the state such as the UP SDG Vision 2030 and UP DEMP.

## A foolproof system for the future

Once deployed, it will facilitate the creation of a data collection, flow, and management system through coordinated efforts by all relevant line departments



## Vision for a dynamic Management Information System (MIS)

The M&E framework that has been developed should give way to a dynamic Management Information System (MIS) wherein data from various line departments will be collated, leading to effective monitoring of the targets set for various activities in the UP SAPCC 2.0. This system can continue to be adapted and used to for other future programmes.



## The Method in brief

The M&E framework was created with the understanding that existing monitoring and data systems should be utilized rather than constructing a separate parallel data gathering mechanism. All relevant documents including the UP DEMP, UP SDG Vision 2030, NITI Aayog SDG index, and the MoSPI documents were studied along with various state and national schemes and programmes that overlap with a particular mission and the indicators within them were collated.

After this the indicators were shortlisted. As a first step only the intermediate and outcome-level indicators were shortlisted. Another criteria was whether they mapped to the strategies within a certain mission or not. Finally, the indicator or a set of indicators were chosen if they gave a holistic perspective of the strategy. Each criteria had a score attached to it and based on this scoring mechanism, the indicators were ranked and chosen.

To finalize the process, consultative workshops were held with various line departments and the indicators were further refined along with identifying or assigning the data sources for these indicators, the periodicity of their collection, who would be responsible for the job, etc.

What is notable is that some of the indicators are relevant to more than one strategy and based on this and other criteria such as data availability, relevance to strategy/ies, holistic perspective, these indicators have been defined as high-priority or not.



## How can one use this book?

This book basically compiles the different indicators that the various line departments need to gather information about in order to successfully monitor the strategies of UPSAPCC 2021-2030. The finalized list of indicators for the Jal Mission are presented below in Table 1A.

Table 1A: Indicators for the Jal Mission

**Blue text: Vulnerability indicators (from SAPCC)**

**Pink Text: These indicators are not from any current scheme since they are part of an action point, which is a recommendation for something that needs to happen in future.**

**Brown Text: Indicators from NITI Aayog SDG Index 2020**

**Green text: Dashboards and Reports**

S. No	Indicators(11)	Mapping to Strategy
1	Annual groundwater recharge	1,3,4
2	Annual groundwater extraction	1,3,4
3	No. of recharge structures	1,2,3,4
4	No. of GPs that have implemented their water budgets	1
5	No. of Gram Panchayat Development Plans (GPDP) that have incorporated water management	1
6	Percentage groundwater withdrawal against availability (N-SDG & UP SDG)	3,4
7	Total state area brought under micro irrigation	3
8	No. of farmers implementing micro-irrigation practices	3

Table 1A: Indicators for the Jal Mission (Contd.)

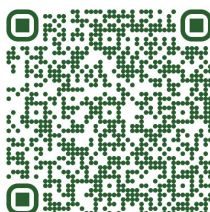
S. No	Indicators(11)	Mapping to Strategy
9	Proportion of planned institutional and commercial buildings in urban areas with roof top rainwater harvesting system	3
10	No. of wells with functioning meters for monitoring groundwater level (observation wells), volumetric water use or energy use	3,4
11	Percentage of blocks/mandals/taluka over-exploited (N-SDG & UP-SDG)	4

One of the key ways in which the challenge of climate change can be addressed by Governments and development agencies is by reducing vulnerability. Derived from the vulnerabilities listed under the chapter "Climate Vulnerability Assessment" of the UPSAPCC 2021-2030, Table 1: Vulnerability Indicators for the Jal Mission, as the name suggests, highlights the vulnerability indicators most relevant for the Jal Mission.

In Table 2: Operationalized M & E Framework for the Jal Mission, you will find a detailed look at the individual indicators, their definitions, the strategies they have been mapped to the measurement unit, their data sources, the department or agency responsible for their collection and the period during which this has to be done. Thus this is the most comprehensive table for the indicators and offers the Operationalized M & E Framework for the Jal Mission.



Since all these indicators have been derived from different schemes, one can refer to the schemes under **Table 3: Various State Schemes and their alignment with the Jal Mission and its strategies**. If one is working on certain projects under UP DEMP or has to see the alignment of the indicators with a specific programme or the UP SDG Vision 2030, one can refer to the tables in the annexure online using the QR code given below.



To understand the detailed process behind these tables one can refer to **Developing Monitoring & Evaluation Framework for UPSAPCC 2021-2030 : Process Document**.

Table 1B: Vulnerability Indicators for the Jal Mission

S. No	Indicators Selected for the M&E Framework: Jal Mission	Functional relationship with Vulnerability
1	Baseline Water Stress	Positive
2	Percentage of total minor irrigation schemes in use, weighted by the percentage of irrigation potential utilized	Negative
3	Percentage of Households (HH) having tap connection within premises (as of date)	Negative





## Reference Text for Table 2: Operationalized M & E Framework for the Jal Mission

The Uttar Pradesh State Action Plan on Climate Change (UP SAPCC) 2021-2030 presents climate change-related mitigation and adaptation strategies to address regional and state-specific climate risks. The table below puts together the operationalized M&E Framework for the Jal Mission. This framework was developed after several rounds of deliberations and discussions between DoEFCC, GIZ and Sambodhi, and presents the final short-listed indicators for this mission.

Instructions for reading the mission spreadsheet	Legends
<b>Column 2, Indicator</b> , presents the indicators selected for this mission.	** Indicators derived from schemes, programmes, NITI Aayog SDG Index, SAPCC Vulnerability Indicators, Dashboards and reports
<b>Column 3, Definition</b> , provides a definition of the indicator.	<b>Blue text: Vulnerability indicators (from SAPCC)</b>
<b>Column 4, Mapping to Strategy</b> , presents the strategy or strategies to which each indicator is being mapped.	<b>Pink Text: These indicators are not from any current scheme since they are part of an action point, which is a recommendation for something that needs to happen in future.</b>
<b>Column 5, Measurement Unit</b> , is the unit (e.g., kg, hectares, INR, number, etc.) at which indicator is being measured.	<b>Brown Text: Indicators from NITI Aayog SDG Index 2020</b>
<b>Column 6, Data Source</b> , is the relevant national or state level schemes, programmes, projects, and/or dashboards mapped to the indicators [Source: secondary research].	<b>Green text: Dashboards and Reports</b>
<b>Column 7</b> , presents the <b>Department/ Agency</b> responsible for collecting data.	
<b>Column 8, Periodicity</b> , is the frequency at which data is available from the said source. Eg., Annual, bi-annual, quarterly, monthly, etc.	
<b>Column 9, Notes</b> , contains additional relevant information,	

<b>Strategy 1</b>	Enhanced monitoring and research to establish water budgets and manage water at micro watersheds
<b>Strategy 2</b>	Strengthening water-sector infrastructure to adapt to climate change
<b>Strategy 3</b>	Enhanced water-use efficiency across sectors to reduce surface water and groundwater dependency
<b>Strategy 4</b>	Enhanced efforts towards groundwater recharge
<b>Strategy 5</b>	Readying for frequent and unprecedented floods in even non-traditional flooding regions and months

Table 2: Operationalized M & E Framework for the Jal Mission

No.	Indicator (11)	Definition	Mapping to strategy	Measurement unit
1	Annual ground-water recharge	<p>The groundwater recharge for an unconfined aquifer is calculated as:</p> $\text{Recharge} = \text{RRF} + \text{RSTR} + \text{RC} + \text{RSWI} + \text{RGWI} + \text{RTP} + \text{RWCS}$ <p>where,</p> <p>RRF is rainfall recharge;  RSTR is recharge from stream channels;  RC is recharge from canals;  RSWI is recharge from surface water irrigation;  RGWI is recharge from groundwater irrigation; <b>RTP is Recharge from tanks &amp; ponds</b>;  RWCS is recharge from water conservation structures</p> <p>Higher value means better performance (+)</p>	1, 3, 4	Billion cubic metres (bcm)
2	Annual groundwater extraction	<p>Groundwater draft or extraction can be assessed as follows:</p> $\text{GEALL} = \text{GEDOM} + \text{GEIRR} + \text{GEIND}$ <p>Where,</p> <p>GEALL = Groundwater extraction for all uses  GEDOM = Groundwater extraction for domestic uses  GEIRR = Groundwater extraction for irrigation uses  GEIND = Groundwater extraction for industrial uses</p> <p>Higher value means lower performance (-)</p>	1, 3, 4	Billion cubic metres (bcm)

Data source	Department/Agency responsible for collection of data	Periodicity	Notes
Groundwater Department, UP Government	Groundwater Department	Annual	Definition source - <a href="http://cgwb.gov.in/GW-Assessment/GWR-2020-Reports%20State/Uttar%20Pradseh_State_Report_Resource_2020.pdf">http://cgwb.gov.in/GW-Assessment/GWR-2020-Reports%20State/Uttar%20Pradseh_State_Report_Resource_2020.pdf</a>
Groundwater Department, UP Government	Groundwater Department	Annual	Definition source - <a href="http://cgwb.gov.in/GW-Assessment/GWR-2020-Reports%20State/Uttar%20Pradseh_State_Report_Resource_2020.pdf">http://cgwb.gov.in/GW-Assessment/GWR-2020-Reports%20State/Uttar%20Pradseh_State_Report_Resource_2020.pdf</a>

Table 2: Operationalized M &amp; E Framework for the Jal Mission

No.	Indicator (I1)	Definition	Mapping to strategy	Measurement unit
3	No. of recharge structures	Total no. of recharge structures = No. of (Percolation ponds + Farm ponds + Contour bunds/trenches + Drainage line treatment [ridge to valley approach] + Recharge trenches/shafts/wells + Gully plugs/nalah bunds/gabions + Vented dams/ <b>bandharas</b> / <b>bandharas</b> under existing bridges)  Higher value means better performance (+)	1, 2, 3, 4	Number
4	No. of gram panchayats (GPs) that have implemented their water budgets	No. of GPs that have included their water budget into their annual action plan  Higher value means better performance (+)	1	Number
5	No. of Gram Panchayat Development Plans (GPDs) that have incorporated water management	No. of GPDs that have incorporated water management components like Water User Associations (WUAs) or community water management  Higher value means better performance (+)	1	Number
6	<b>Percentage of groundwater withdrawal against availability (N-SDG &amp; UP SDG)</b>	Numerator (N) = Amount of water that can be withdrawn Denominator (D) = Amount of water that is available Multiplier (M) = 100  Percentage groundwater withdrawal against availability = $(N/D)*M$  Higher value means lower performance (-)	3, 4	Percentage
7	Total state area brought under micro irrigation	Total state area brought under micro irrigation = Area under drip irrigation + Area under sprinkler irrigation  Higher value means better performance (+)	3	Hectare

Data source	Department/Agency responsible for collection of data	Periodicity	Notes
Minor Irrigation Department	Minor Irrigation Department	Annual	Currently, data is only available for ponds and check dams. However, data availability for the other components of this indicator should be checked and revised accordingly.
State Water and Sanitation Mission (SWSM)	Namami Gange and Rural Water Supply Department	Annual	
State Water and Sanitation Mission (SWSM)	Namami Gange and Rural Water Supply Department	Annual	
Groundwater Department, UP Government	Groundwater Department	Annual	This indicator has also been reported in SDG Goals: Progress Report 2021 Uttar Pradesh (Based on NIF Progress Report 2021 by MoSPI) and NITI Aayog SDG Index 2020-2021
Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)	Agriculture Department	Annual	

Table 2: Operationalized M &amp; E Framework for the Jal Mission

No.	Indicator (I1)	Definition	Mapping to strategy	Measurement unit
8	No. of farmers implementing micro-irrigation practices	Total no. of farmers in the state implementing drip and sprinkler irrigation  Higher value means better performance (+)	3	Number
9	Proportion of planned institutional and commercial buildings in urban areas with rooftop rainwater harvesting system	N = Total no. of planned institutional and commercial buildings in urban areas with rooftop rainwater harvesting system D = Total no. of planned institutional and commercial buildings in urban areas  Proportion of planned institutional and commercial buildings in urban areas with rooftop rainwater harvesting system = (N/D)  Higher value means better performance (+)	3	NA
10	No. of wells with functioning meters for monitoring groundwater level (observation wells), volumetric water use or energy use	No. of wells with functioning meters for monitoring groundwater level (observation wells), volumetric water use or energy use  Higher value means better performance (+)	3, 4	Number
11	Percentage of blocks/mandals/taluka with over-exploited groundwater resources (N-SDG & UP-SDG)	N = Existing Gross GW extraction for all uses D = Annual extractable GW resources M = 100 Stage of groundwater extraction = (N/D)*M  The stages of groundwater extraction are categorized as:  1. Safe: ≤ 70% 2. Semi-critical: > 70% and ≤90% 3. Critical: > 90% and ≤100% 4. Over-exploited: > 100%  Higher value means lower performance (-)	4	Percentage

Data source	Department/Agency responsible for collection of data	Periodicity	Notes
UP Shakti Portal	Agriculture Department	Annual	
Awaz Bandhu	Department of Housing and Urban Planning	Annual	
Groundwater Department, UP Government (Atal Bhujal Yojana Dashboard)	Groundwater Department	Annual	
Groundwater Department, UP Government	Groundwater Department	Annual	"Definition source - <a href="https://cgwb.gov.in/faq.html">https://cgwb.gov.in/faq.html</a>
			This indicator has also been reported in SDG Goals: Progress Report 2021 Uttar Pradesh (Based on NIF Progress Report 2021 by MoSPI) and NITI Aayog SDG Index 2020-2021"

Table 3: Various State Schemes and their alignment with the Jal Mission and its strategies

No.	Scheme Name	Description
1	Atal Mission for Rejuvenation and Urban Transformation (AMRUT) Scheme	<p>Scheme ensures that every household has access to a tap with the assured supply of water and a sewerage connection.</p> <p>Five thrust areas:</p> <ul style="list-style-type: none"> <li>Water supply</li> <li>Sewerage facilities and Septage management,</li> <li>Storm water drains to reduce flooding,</li> <li>Urban Transport - pedestrian, non-motorized and public transport facilities, parking spaces</li> <li>Creating and upgrading green spaces, parks and recreation centres, especially for children.</li> </ul>
2	National Rural Drinking Water Programme	Aim of the program is to provide safe and adequate water for drinking, cooking and other domestic needs to every rural person on a sustainable basis.
3	Jal Jeevan Mission	Jal Jeevan Mission is envisioned to provide safe and adequate drinking water through individual household tap connections by 2024 to all households in rural India. The programme will also implement source sustainability measures as mandatory elements, such as recharge and reuse through grey water management, water conservation, rain water harvesting.
4	National Rural Drinking Water Programme	Aims at providing safe and adequate water for drinking, cooking and other domestic needs to every rural person on a sustainable basis. The number of rural government schools and anganwadis having drinking water facilities and feed this data online in the IMIS. Schools and anganwadis with drinking water sources affected by bacteriological or excess iron contamination may be provided with water purification systems.



Geography	Timeline	Notes
National	Launched in June 2005	Link – <a href="http://amrut.gov.in/content/">http://amrut.gov.in/content/</a> <a href="https://byjus.com/free-ias-prep/amrut/">https://byjus.com/free-ias-prep/amrut/</a>
National	2009 - ongoing	Link – <a href="https://pib.gov.in/PressReleasePage.aspx?PRID=1809209">https://pib.gov.in/PressReleasePage.aspx?PRID=1809209</a>
National	2019-24	Link – <a href="https://jaljeevanmission.gov.in/">https://jaljeevanmission.gov.in/</a>
National	2009 - ongoing	Link – <a href="https://jn.upsdc.gov.in/article/en/rural">https://jn.upsdc.gov.in/article/en/rural</a>

Table 3: Various State Schemes and their alignment with the Jal Mission and its strategies

No.	Scheme Name	Description
5	Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)	PMKSY has been formulated amalgamating ongoing schemes viz. Accelerated Irrigation Benefit Programme (AIBP) of the Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR, RD&GR), Integrated Watershed Management Programme (IWMP) of the Department of Land Resources (DoLR) and the On-Farm Water Management (OFWM) of Department of Agriculture and Cooperation (DAC).
6	National Hydrology project	NHP facilitate developing and implementing a sustainable Hydrological Information System (HIS) through improvement and strengthening of the infrastructure of Hydro-meteorological stations, training extensively the personnel involved and computerization of the data for meaningful analysis
7	Swajal Scheme	Scheme provides sustainable access to drinking water to people in rural areas

Geography	Timeline	Notes
National	2015-ongoing	<p>Link -  <a href="https://pmksy.gov.in/microirrigation/Reports.aspx">https://pmksy.gov.in/microirrigation/Reports.aspx</a>  <a href="https://pmksy.gov.in/">https://pmksy.gov.in/</a></p> <p>Department of Agriculture and Cooperation (DAC).</p> <p><a href="https://pmksy.gov.in/microirrigation/index.aspx">https://pmksy.gov.in/microirrigation/index.aspx</a></p> <p><a href="https://pmksy.gov.in/microirrigation/Archive/GuidelinesMIRRevised260417.pdf">https://pmksy.gov.in/microirrigation/Archive/GuidelinesMIRRevised260417.pdf</a></p>
National	2003	<p>Link -  <a href="https://agricoop.nic.in/sites/default/files/midhPPT4.pdf">https://agricoop.nic.in/sites/default/files/midhPPT4.pdf</a></p>
National	2018	<p>Link -  <a href="https://jalshakti-ddws.gov.in/">https://jalshakti-ddws.gov.in/</a>  <a href="https://jalshakti-ddws.gov.in/sites/default/files/Swajal_guidelines.pdf">https://jalshakti-ddws.gov.in/sites/default/files/Swajal_guidelines.pdf</a>  <a href="https://jalshakti-ddws.gov.in/sites/default/files/Swajal_PPT.pdf">https://jalshakti-ddws.gov.in/sites/default/files/Swajal_PPT.pdf</a>  <a href="https://vikaspedia.in/social-welfare/rural-pov-erty-alleviation-1/swajal-scheme">https://vikaspedia.in/social-welfare/rural-pov-erty-alleviation-1/swajal-scheme</a></p>

Table 3: Various State Schemes and their alignment with the Jal Mission and its strategies

No.	Scheme Name	Description
8	Har Ghar NaI, har ghar jal Scheme	Har Ghar NaI Yojana has been launched by the Central Government under the Jal Jeevan Mission (JJM). Under this scheme, the target of providing clean water to every household was set by 2030. Which has now been changed to 2024. The objective of providing clean water to 3.8 crore families across the country in the year 2022-23 by the Central Government has been set under the Har Ghar NaI Yojana.

Geography	Timeline	Notes
National	2019-ongoing	<p>Link –  <a href="https://pib.gov.in/Pressreleaseshare.aspx?PRID=1779739">https://pib.gov.in/Pressreleaseshare.aspx?PRID=1779739</a>  <a href="https://timesofindia.indiatimes.com/city/luc-know/har-ghar-nal-scheme-an-oasis-for-parched-homes/articleshow/86718240.cms">https://timesofindia.indiatimes.com/city/luc-know/har-ghar-nal-scheme-an-oasis-for-parched-homes/articleshow/86718240.cms</a></p> <p><a href="https://www.hindustantimes.com/india-news/pm-modi-launches-har-ghar-nal-yojna-scheme-to-ensure-water-supply-to-nearly-3-000-villages-in-up/story-fwsoLcg5jLVaP5cYJpGuXP.html">https://www.hindustantimes.com/india-news/pm-modi-launches-har-ghar-nal-yojna-scheme-to-ensure-water-supply-to-nearly-3-000-villages-in-up/story-fwsoLcg5jLVaP5cYJpGuXP.html</a></p>

Table 3: Various State Schemes and their alignment with the Jal Mission and its strategies

No.	Scheme Name	Description
9.	ATAL BHUJAL YOJANA	Atal Bhujal Yojana (ATAL JAL) is a Central Sector Scheme for facilitating sustainable groundwater management. The scheme lays emphasis on community participation and demand side interventions for sustainable groundwater management in identified water stressed areas in seven States of the country. The scheme also envisages improved source sustainability for Jal Jeevan Mission, positive contribution to the Government's goal of 'doubling farmers income' and inculcating behavioral changes in the community to facilitate optimal water use
10	National Plan for Conservation of Aquatic Eco-systems (NPCA) scheme	The NPCA is a single conservation programme for both wetlands and lakes. It is a Centrally-sponsored scheme, currently being implemented by the MoEFCC, and was formulated by merging the National Lake Conservation Plan and the National Wetlands Conservation Programme. It aims at holistic conservation and restoration of lakes & wetlands for achieving desired water quality enhancement besides improvement in biodiversity and ecosystem through an integrated and multidisciplinary approach with a common regulatory framework. The scheme would contribute to the reduction of pollution loads and improvement in biodiversity as also the goods and services provided by these water bodies to the stakeholders
11	Uttar Pradesh Water Sector Restructuring Project	The overall aim of the project is to strengthen and modernize the water sector in Uttar Pradesh, India's most populous state. The project will be implemented in 16 districts identified by the Uttar Pradesh Government as being a priority areas. The objective of the project is to strengthen the institutional and policy framework for integrated water resources management for the entire state and increase agricultural and water productivity by supporting framers in targeted irrigation areas.
12.	RKVY (Rashtriya Krishi Vikas Yojana)	RKVY scheme was initiated in 2007 as an umbrella scheme for ensuring holistic development of agriculture and allied sectors by allowing states to choose their own agriculture and allied sector development activities as per the district/state agriculture plan.
13	Command Area Development and Water Management Programme (CADWMP)	The command area development programme (CADP) was initiated in the year 1974-75 as a Centrally Sponsored Scheme. The programme was restructured and termed as "Command Area Development and Water Management (CADWM) Programme".

Geography	Timeline	Notes
National	2019-ongoing	Link – <a href="http://jalshakti-dowr.gov.in/schemes/atal-bhujal-yojana">http://jalshakti-dowr.gov.in/schemes/atal-bhujal-yojana</a> <a href="https://en.wikipedia.org/wiki/Atal_Bhujal_Yojana">https://en.wikipedia.org/wiki/Atal_Bhujal_Yojana</a>
National	2015-ongoing	Link – <a href="https://indianwetlands.in/our-work/national-plan-for-conservation-of-aquatic-ecosystems/">https://indianwetlands.in/our-work/national-plan-for-conservation-of-aquatic-ecosystems/</a> <a href="https://www.nextias.com/current-affairs/20-03-2021/national-plan-for-conservation-of-aquatic-ecosystems-npca">https://www.nextias.com/current-affairs/20-03-2021/national-plan-for-conservation-of-aquatic-ecosystems-npca</a>  <a href="https://www.business-standard.com/article/current-affairs/over-rs-1-000-crore-released-for-conservation-of-160-wetlands-govt-121072001168_1.html">https://www.business-standard.com/article/current-affairs/over-rs-1-000-crore-released-for-conservation-of-160-wetlands-govt-121072001168_1.html</a>
National	2002 ongoing	Link – <a href="https://ewpdata.rightsindevelopment.org/projects/p122770-in-uttar-pradesh-water-sector-structuring-project/">https://ewpdata.rightsindevelopment.org/projects/p122770-in-uttar-pradesh-water-sector-structuring-project/</a>
National	Since 2007	Link – <a href="https://rkvy.nic.in/">https://rkvy.nic.in/</a>
National	2004	Link – <a href="https://cadwm.gov.in/CadwmProject.aspx">https://cadwm.gov.in/CadwmProject.aspx</a>

Table 3: Various State Schemes and their alignment with the Jal Mission and its strategies

No.	Scheme Name	Description
14	National Mission on Micro Irrigation (NMMI) Scheme	The Scheme was launched by the Department of Agriculture & Co-operation, Ministry of Agriculture in January, 2006 as Centrally Sponsored Scheme on Micro Irrigation (CSS). Aims at promoting water-use efficiency by adopting drip and sprinkler irrigation.
15	Watershed Development Component of Pradhan Mantri Krishi Sinchayee Yojana (WDC-PMKSY)	PMKSY has been formulated amalgamating ongoing schemes viz. Accelerated Irrigation Benefit Programme (AIBP) of the Ministry of Water Resources, River Development & Ganga Rejuvenation (MoWR, RD&GR), Integrated Watershed Management Programme (IWMP) of the Department of Land Resources (DoLR) and the On-Farm Water Management (OFWM) of Department of Agriculture and Cooperation (DAC).
16	Bundelkhand Water Supply Scheme	UP State Government has launched this ambitious project to provide pure and safe piped drinking water to all the settlements of the rural areas of Bundelkhand/Vindhya region which are not covered with drinking water. The second largest district in Uttar Pradesh, Sonbhadra a densely populated area covering more than 1,400 villages. The communities in these areas are impacted by water scarcity and disease caused by drinking groundwater contaminated by arsenic and fluoride. Total Rs. 10,322.42 Crore are expected to be used in construction of these schemes.
17	UP Private Tubewell Connection Yojana	This scheme has been run by the Government of Uttar Pradesh to help the farmers. The reason behind the Uttar Pradesh Private Tubewell Connection Scheme being run by the state government is that if the tubewell connection is installed in the field, the need for diesel is very high to run it for a long time. In such a situation, this cost to the farmers is very high. In such a situation, this scheme has been started to overcome this problem of farmers.



Geography	Timeline	Notes
National	2006	Link – <a href="https://www.gktoday.in/topic/national-mission-on-micro-irrigation/">https://www.gktoday.in/topic/national-mission-on-micro-irrigation/</a>
National	Started 2015- ongoing	Link – <a href="https://dolr.gov.in/en/programme-schemes/pmksy/watershed-development-component-pradhan-mantri-krisi-sinchai-yojana-wdc-pmksy/">https://dolr.gov.in/en/programme-schemes/pmksy/watershed-development-component-pradhan-mantri-krisi-sinchai-yojana-wdc-pmksy/</a>
State	2021- ongoing	Link – <a href="https://www.smec.com/what-we-do/projects/Bundelkhand-Water-Supply-Scheme">https://www.smec.com/what-we-do/projects/Bundelkhand-Water-Supply-Scheme</a> <a href="https://timesofindia.indiatimes.com/city/lucknow/parched-bkhand-homes-to-get-piped-water-by-nov-end/articleshow/87031628.cms">https://timesofindia.indiatimes.com/city/lucknow/parched-bkhand-homes-to-get-piped-water-by-nov-end/articleshow/87031628.cms</a>
State	2022	Link – <a href="https://sarkariyोजना.com/up-private-tubewell-connection-yojana-apply/#:~:text=UPPCL%20Private%20Tubewell%20Connection%20Yojna,families%20through%20an%20online%20process.">https://sarkariyोजना.com/up-private-tubewell-connection-yojana-apply/#:~:text=UPPCL%20Private%20Tubewell%20Connection%20Yojna,families%20through%20an%20online%20process.</a>  <a href="https://www-abplive-com.translate.google/business/uttar-pradesh-private-tubewell-connection-yojana-uttar-pradesh-government-schemes-know-process-2064948?_x_tr_sl=hi&amp;_x_tr_tl=en&amp;_x_tr_hl=en&amp;_x_tr_pto=sc">https://www-abplive-com.translate.google/business/uttar-pradesh-private-tubewell-connection-yojana-uttar-pradesh-government-schemes-know-process-2064948?_x_tr_sl=hi&amp;_x_tr_tl=en&amp;_x_tr_hl=en&amp;_x_tr_pto=sc</a>

Table 3: Various State Schemes and their alignment with the Jal Mission and its strategies

No.	Scheme Name	Description
18	Accelerated Urban Water Supply Programme (AUWSP)	The scheme launched by the Ministry of Urban Development of Govt. of India. Provides safe and adequate water supply to the entire population of the town. Further, focus is provided for consistent and systematic water supply. The supply of safe water will make life easy of people who are being kept deprived of the facilities.
19	Participatory Irrigation Management (PIM) Program	PIM program aims to create a sense of ownership of water resources and the irrigation system among the users, so as to promote economy in water use and preservation of the system. To increase production per unit of water where water is scarce and to increase production per unit of land where water is adequate. To encourage collective and community responsibility on the farmers to collect water charges and payment to Irrigation Agency.
20	Arjun Sahayak Pariyojna	This Yojana provides irrigation facility to 1.5 lakh farmers in 168 villages of Banda, Mahoba and Hamirpur in Uttar Pradesh.
21	Agra Water Supply Project (JICA funded)	The Project consists of concept development, design and implementation of pipeline for bringing Ganga water about 130 km from Palra in Bulandshahar to Agra.
22	Saryu Canal National Project	The Saryu Canal project is the biggest in Uttar Pradesh. It will benefit some 25-30 lakh farmers across nine eastern UP districts namely, Bahraich, Gonda, Basti, Shravasti, Balrampur, Sant Kabir Nagar, Siddharth- nagar, Gorakhpur and Maharajganj. Canal will facilitate irrigation of 14.04 lakh hectares of land, as well as reduce the risk of floods in several flood-prone areas of the region.

Geography	Timeline	Notes
	1994 on going	Link – <a href="https://govinfo.me/accelerated-urban-water-supply-programme/">https://govinfo.me/accelerated-urban-water-supply-programme/</a>  <a href="https://megphed.gov.in/standards/guideurban.pdf">https://megphed.gov.in/standards/guideurban.pdf</a>
National	2002	Link – <a href="http://jalshakti-dwr.gov.in/sites/default/files/-CADWM_Status_of_PIM.pdf">http://jalshakti-dwr.gov.in/sites/default/files/-CADWM_Status_of_PIM.pdf</a>  <a href="https://idup.gov.in/en/page/pim-training-module">https://idup.gov.in/en/page/pim-training-module</a>
State	State	Link – <a href="https://www.hindustantimes.com/cities/lucknow-news/pm-modi-dedicates-2-655-crore-arjun-sahayak-irrigation-project-to-people-in-mahoba-district-of-uttar-pradesh-101637332089998.html">https://www.hindustantimes.com/cities/lucknow-news/pm-modi-dedicates-2-655-crore-arjun-sahayak-irrigation-project-to-people-in-mahoba-district-of-uttar-pradesh-101637332089998.html</a>
State	2009-18	Link – <a href="https://idup.gov.in/post/en/details-of-arjun-shahayak-project">https://idup.gov.in/post/en/details-of-arjun-shahayak-project</a>
State	2021	Link – <a href="https://www.drishtiiias.com/state-pcs-current-affairs/saryu-canal-national-project">https://www.drishtiiias.com/state-pcs-current-affairs/saryu-canal-national-project</a>

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