Annexure 1: Minutes of the Meeting on Community Participation

An on-line meeting was held on 26.05.2023 on community participation to enhance groundwater conservation and ensure drinking water security - Banda Water Campaign

Participants

1. India Water Partnership (IWP)

IWP is a non-profit organization with the goal of propagating, promoting and supporting Integrated Water Resources Management (IWRM) in India. The IWP is also accredited by the Global Water Partnership (GWP) with its headquarters in Stockholm, Sweden as Country Water Partnership of GWP and hence, also known as GWP-India. In the meeting, IWP was represented by Dr. Veena Khanduri, Executive Secretary-cum-Country Coordinator, IWP.

2. Indian Environment Law Organization

Indian Environment Law Organization (IELO) is engaged in practice of environment and natural resources Law and policy in India and South Asia. The firm also handles litigation disputes on Environment before esteemed legal forums, such as, National Green Tribunal; High Courts and Supreme Court of India. In the meeting, the firm was represented by Adv. Shawahiq Siddiqui, who is a Managing Partner of IELO.

3. Dr. Heera Lal

Dr. Heera Lal is an IAS officer. He is recognized for his Effective Water Conservation program in Banda District of Uttar Pradesh where he was a District Magistrate. In the meeting, he explained about water conservation methods which lead to successful replenishment of dilapidated water bodies in Banda, U.P.

4. Shri Uma Shankar Pandey

Shri Uma Shakar Pandey is recognized for Jakhni village model in Banda district of Uttar Pradesh. His methods of water conservation and slogan "medh pe ped" is widely recognized and followed. Jal Shakti Mantralay, U. P. has also acknowledged his efforts. In the meeting, he spoke about his journey addressing water crisis in Jakhni village that prompted him to take an initiative to conserve water by traditional means.

Discussion

Dr. Veena Khanduri gave opening remarks and introduced IWP. She reiterated that IWP is involved in community engagement at Regional, National and State Level. She reiterated the

importance of scientific issues that must be shared with people to educate them so that practice of water conservation is adopted with a right approach. She stated that how policy issues may undermine the water conservation efforts.

Advocate Shawahiq Siddiqui introduced IELO and welcomed the participants. He spoke about his involvement with IWP and began the meeting by relaying the importance of water conservation. He asked question on how Banda and Jakhni models can be replicated in other parts of the State.

Dr. Heera Lal answered to the question stating that involvement of public is important so that water conservation becomes a movement. Dr. Heera Lal went on to speak about reviving Kuans-Talabs[1] and rivers by connecting people to the sources of water. He conducted survey of Kuans-Talabs to identify the number of kuan's and talabs with the help of the stakeholders. Survey of villages on the borders of the rivers, Yamuna, Ken and Baghain was conducted and 130 villages were identified and accordingly Jal Chaupals[2] were established for community participation and exchange of knowledge on water scarcity issues. Funds from public schemes like MNREGA were encouraged to be utilized by Gram Pradhan to clean the Kuans and desilt the Talabs.

Shri Uma Shankar Pandey spoke about increasing the groundwater level to conserve the water in Village Jakhni, in Banda, Uttar Pradesh. He gave his insight on how he motivated people to utilize traditional means of conserving water by using earthen pots to supply water to the people. Slowly and gradually, he started a campaign by meeting people and generating awareness to revive the dried wells. His Jakhni model is recognized by the Government of Uttar Pradesh. His inspiration to conserve water led to the concept of med bandhi (water bank) which contributes to the rise in water level. He also encouraged people to make nullahs (passage of water) so that the wastewater can be seeped into the ground for re-circulation.

[1] Wells-ponds
[2] Stakeholders for water conservation and security

Delivering IWRM (SDG 6.5) by Strengthening Atal Bhujal Yojana in Bundelkhand, Uttar Pradesh - Need for a fresh legal perspective

Based on the Case Study of 'Banda Model' on Groundwater Management

A Legal Brief | **December, 2023**

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Acknowledgement

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1. Groundwater scenario in Uttar Pradesh

The state of Uttar Pradesh (UP) is the largest extractor of groundwater in India accounting for 18.4% of the total national and 4.5% of the total global groundwater extraction[1]. Groundwater extraction in UP is concentrated mainly in the Western UP, Bundelkhand Region and South Eastern part of the state. The stage of ground water extraction of the state is 70.66%[2]. In 2018, the NITI Aayog's Composite Water Resource Management Index performance for UP noted that the state of UP has mapped only ~20% of over-exploited and critical wells, and constructed no recharge infrastructures—this is critical given that the state has ~17% of the country's groundwater[3].

2. The water crisis in the Bundelkhand Region

The Bundelkhand Region of UP, due to its unique dry and degraded landscape is faced with severe water crisis and has been receiving attention from the policy makers in the central and state government. A special central assistance called Bundelkhand Package is allocated to address region's multi-faceted water and ecological crisis. Despite special policies, regulations and financial arrangements have been made, there has not been much large scale improvement on the ground. Yet there are sporadic examples where a couple of villages have been able to improve the water scenario by reviving village ponds and wells with the support from the local administration, however, there has been little attention to up-scale the practices and learning from such examples at a Region or state level .

3. The existing legal and institutional response to Groundwater Governance at the National level

3.1 *The Constitutional scheme does not provide anything specific on groundwater either to the central or the state governments except that a state has the first charge to regulate groundwater use:*

The Constitution of India does not make distinction between surface water and groundwater while allocating legislative powers on water to the central and the state governments. As per the constitutional scheme, water is a state subject wherein the state government can practically legislate on all aspects of water management. This power of the state governments is subject to the central government's power to make laws for the inter-state rivers and river valleys[4] . The Central Government can play a supporting role for water planning and management under the socio-economic planning which is a concurrent subject[5]. This broad constitutional scheme on water under the constitution does not provide any specific mandate on groundwater. Importantly, agriculture and land which drive groundwater overuse and scarcity are also the state subjects and can be regulated by an appropriate legislation at the state level[6]. It is noteworthy that under the constitution, the state governments can enact legislation on 'rights in or over land'. The expression in or over land is construed to mean that the state is well placed to regulate groundwater which is considered as part of the private property since it is 'in the land' of an owner. It is on this premise and using the Principle of *Eminent Domain* that the state government of Uttar Pradesh has enacted a groundwater law which is discussed subsequently.

3.2 *The National level legal framework on right to groundwater ownership and use relevant for Bundelkhand Region, Uttar Pradesh*

The legislations establishing right to groundwater as part of land rights and hence supporting its unrestricted use, precede the constitutional scheme that allows the state to legislate on aspects of land including on groundwater. The Indian Easement Act, 1882 recognizes the right of the government to regulate water flowing naturally[7]and at the same time recognizes water as an easement right of a property owner as *iura in re aliena*, a legal rights that can't be alienated[8].

[1] Water Resources Group Consultations on the Draft 1.0 of Uttar Pradesh Water Policy, 2021, State Groundwater Department, Uttar Pradesh
[2] See the UP State Government Report on Dynamic Groundwater Resources of Uttar Pradesh, 2022 available at **https://upgwd.gov.in/MediaGallery/ER22Eng.pdf**
[3] **https://social.niti.gov.in/uploads/sample/water_index_report2.pdf** Note that this is observed by the NITI Ayog under the heading 'things to improve'.
[4] Central list-I, Entry 56
[5] Concurrent List-III, Entry 20, Economic and Social Planning
[6] List II- The State List, See entry 14 and entry 18 respectively
[7] Section 2(a) of the Indian Easement Act, 1882
[8] Section 4 of the Indian Easement Act, 1882

However, the import of the two provisions suggests that the government's right to regulate water is not affected by easements and customary rights. Although the Indian Easement Act, 1882 recognizes customary rights in or over immovable property for example in water issuing from a well, however, the Act does not establish or recognizes any natural or customary right over groundwater[9]. In addition to this, the connection between the property rights and proprietary rights are established by the Transfer of Property Act, 1882 shows that an easement (water) cannot be transferred apart from dominant heritage which means that right to land implies right in the groundwater of an owner. Thus Rights in groundwater belong to the land owner since it forms part of the dominant heritage. In short groundwater is attached, like a chattel, to land and property and there is no limitation as to how much groundwater an owner of a private property can draw. This implies that a landowner in the country is also the owner of groundwater. In other words only landowners have legal rights to unrestricted use of groundwater and landless people have no groundwater rights, except certain customary rights to access community wells and hand pumps. In the instance of an owner being a commercial entity or an industry owning the land, the right gets regulated by the limits imposed by the Central Ground Water Authority (CGWA) while granting permission to such withdrawal of water for production or processes. The CGWA was constituted under the Environment (Protection) Act, 1986 which has been helpful in regulating groundwater abstraction and is discussed in details below.

3.3 *Does the ownership in groundwater gives absolute rights to exploit and pollute aquifers?- the role of regulatory regime on environment protection and groundwater*

The right in groundwater of an individual, community or a business entity is regulated through a regime of environment protection laws led by the Environment (Protection) Act, (EPA), 1986 that provides power to the Central Government to undertake measures to prohibit or restrict activities that have negative impacts on environment and actions that lead to environmental insecurity. The Central Government can issue directions and create special institutions to deal with environmental concerns. Using the wide powers under the EPA, 1986 and on the direction of the Supreme Court of India invoking the provisions of this Act, the Central Government has established the Central Groundwater Authority (CGWA) which is a National level authority on groundwater regulation and management[10]. Pursuant to this, the Central Groundwater Board has also been constituted as a technical agency to provide assistance to the state ground water boards. Thus the CGWA and the CGWB/SGWB have the regulatory and institutional roles for managing groundwater. The CGWA is empowered to regulate the overexploitation in the already stressed blocks as mapped and inventoried by the CGWB and the State Boards. The Authority draws its powers from the EPA, 1986. The Authority and the CGWB are administered by the Ministry of Jal Shakti, Government of India which is nodal Ministry for the management of groundwater at the national level in the country. Thus the powers of the EPA, 1986 exercised by the established institutions at the national level can regulate groundwater use and abstraction. However, the national level institutional mechanism has not been able to regulate land owners from exploiting groundwater in Uttar Pradesh and get groundwater recognized as a common pool resource distinct from the absolute property rights of an individual due to the fact that the two central laws discussed above, namely the Indian Property Act, 1882 and the Indian Easement Act, 1882 continue to be in existence and apply to all the property owners and easements in the country. Another reason for the inability of national level on groundwater scenario is the ambiguity in the powers and functions of both the institutions and their institutional capacity as these are understaffed and lack clarity on various issues.

3.4 *The underutilized role of the Disaster Management Act, 2005 in groundwater protection through drought disaster governance in Bundelkhand Region, Uttar Pradesh – The lack of coordination and consensus on the definition of drought*

Drought is a notified national disaster under the Disaster Management Act, 2005. The Act mandates every agency at the state and district level to allocate financial and human resources for disaster management and

[9] Singh, Chhatrapati, Water Law in India, 1992, Indian Law Institute, Water Project Series.
[10] See M.C. Mehta vs. Union of India & Others (1997)11SCC312, **https://indiankanoon.org/doc/68882889/**

Drought is a notified national disaster under the Disaster Management Act, 2005. The Act mandates every agency at the state and district level to allocate financial and human resources for disaster management and produce a report in this regard to the National Disaster Management Authority (NDMA). Every state is required to prepare the State Disaster Management Plan (SDMP) and District Disaster Management Plan (DDMP). The Central Government is responsible for financial assistance for disaster preparedness, planning and relief. The National Disaster Management Plan (NDMP) provides the foundation and principles on which the SDMP and the DDMPs are based. The National Disaster Management Plan 2019 provides extensive guidance on drought parameters for assessing and monitoring the droughts for its declaration and delineated the roles and responsibilities to various departments including the agriculture, the water resources and the Panchayati Raj. In addition to cumbersome coordination process, lack of uniform definition of drought makes it difficult for the state government to claim financial assistance and initiate drought planning. In successive years, despite drought like situation in Bundelkhand Region, it has not been easy to do a concerted planning and investment to keep it away. Hence, despite supporting provisions to initiate groundwater enhancement through conservation and watershed works, the Bundelkhand Region of Uttar Pradesh has not benefitted from the Disaster Risk Reduction (DRR) frameworks at the national and state level.

3.5 *The paradigm shift on groundwater management as per the directives under National Water Policy (NWP), 2012 and the response under the Uttar Pradesh Water Policy, 1999*

The NWP, 2012 sought to achieve a paradigm shift in all aspects of water governance including on groundwater[11]. The NWP has number of specific provisions dealing with groundwater management and calls for enhancing groundwater through various strategies. However, the national level policy directions need to be appropriately supported by the enabling or corresponding provisions by the state level policies or action plans so that the policies can be transformed into concrete actions. It would thus be critical to highlight the policy directions on groundwater at the national and state level in comparative perspective so as to understand the UP's formal position on groundwater management. It is to be noted that the UP government has recently revised its State Water Policy, 1999 wherein groundwater is recognized as a community resource but the State Government is yet to adopt the revised Water Policy formally[12].

Matrix-1: Key Policy Directives under the NWP and the corresponding provisions in the UP State Water Policy, 1999

Key policy directives on groundwater governance at the national and state level	Corresponding provisions under the National Water Policy, 2012	Corresponding provisions under the Uttar Pradesh State Water Policy, 1999
Groundwater as a community resource and not individual property	(vi) Groundwater, though part of hydrological cycle and a community resource, is still perceived as an individual property and is exploited inequitably and without any consideration to its sustainability leading to its over-exploitation in several areas.	No such recognition of groundwater as a community resource. The Provision reads thus - In view of the water resources (surface and underground) availability of the state and status of present use and to cater for future needs up to 2025, judicious and optimal exploitation, utilization, conservation and management of this limited resource is imperative. Such a planning should also address to reconcile the conflicts, if they arise, between different uses.

[11] Water: Towards a paradigm shift in the Twelfth Plan **https://www.indiawaterportal.org/articles/water-towards-paradigm-shift-twelfth-plan-paper-mihir-shah-epw**
[12] See the draft policy on **https://upgwd.gov.in/MediaGallery/SWPUP2020DraftFeb20.pdf**

Need for a Water Framework Law	2.2 Such a framework law must recognize water not only as a scarce resource but also as a sustainer of life and ecology. Therefore, water, particularly, groundwater, needs to be managed as a community resource held, by the state, under public trust doctrine to achieve food security, livelihood, and equitable and sustainable development for all. Existing Acts may have to be modified accordingly.	The "State Water Policy" while recognizing the water resource as a state subject under the constitution and addressing to its specific requirements, needs to be inconsonance with the general guidelines and parameters laid down in the "National Water Policy".
IWD activities from groundwater perspectives by converging other programs such as MNREGA	(5.6) Integrated Watershed development activities with groundwater perspectives need to be taken in a comprehensive manner to increase soil moisture, reduce sediment yield and increase overall land and water productivity. To the extent possible, existing programs like MGNREGS may be used by farmers to harvest rain water by using farm ponds and other soil and water conservation measures.	A river basin or a sub-basin in case of surface water along with the corresponding aquifer for ground water should be considered as a unit of development while planning for water resources of the state rather than consideration of an individual project. The planning of such a unit should take into account the present status of development and consider surface and ground water as a unitary resource ensuring their optimal conjunctive use wherein drainage should also be considered as its integral part.
The rule for the over-drawl of groundwater	7.6 The over-drawl of groundwater should be minimized by regulating the use of electricity for its extraction. Separate electric feeders for pumping ground water for agricultural use should be considered.	Conjunctive Use: Conjunctive management and ground water recharge should be central to ground water management. To augment the ground water by artificial means surplus monsoon runoff between sub-basin within river systems should be transferred and stored in the available aquifers, by applying different appropriate recharge techniques such as, construction of recharge ponds/percolation tanks and de-siltation of existing ponds, construction of recharge shafts in the existing ponds, construction of gravity head recharge wells and conversion of existing tube wells/wells into gravity head recharge well, construction of water conservation of existing tube wells/wells into gravity head recharge well, construction of water conservation structures such as Nala Bunds, Contour Bunds, Gully plugs, construction of recharge basin etc. in the dark & gray blocks. However, while undertaking any recharge project, it must be ensured that such projects do not pollute the ground water aquifer.

The comparative Matrix shows that the key directives under the National Water Policy (NWP), 2012 on groundwater are not ingrained in the UP State Water Policy, 1999 though the State Water Policy (SWP) needs to be in consonance with the NWP. It means that the UP State should have aligned its 1999 policy with the NWP, especially given that NWP has very different prescription for the management of groundwater resources.

4. The Policy, legal and regulatory response to groundwater crisis in the Bundelkhand Region, Uttar Pradesh

4.1 *The limited focus of the UP Water Policy, 1999 on groundwater and the Draft UP Water Policy, 2020*

As seen above, the UP Water Policy, 1999 has very limited focus on groundwater. Conjunctive use and groundwater recharge is the only specific policy direction under the Policy. The Draft Water Policy of UP, 2020 is more closely aligned with the directives of the NWP, 2012 in general and with the approach to management of ground water specifically[13]. However, the Draft SWP, 2020 is still to be adopted by the state government.

4.2 *The Policy for Groundwater Management, Rainwater Harvesting and Groundwater Recharge in Uttar Pradesh, 2013[14] - first of its kind but not seen on the ground in more than a decade after it adoption*

The Policy for Groundwater Management, Rainwater Harvesting and Groundwater Recharge in Uttar Pradesh (the UPGMR), 2013 states that the groundwater is the foremost need of the state and its long term management and planning is imperative. The Policy seeks to provide overall guidance for the conservation and management of groundwater through a series of measures such as aquifer mapping and aquifer-based groundwater management; Optimum use of groundwater and planned management of its exploitation; Rain water harvesting and groundwater recharge in an integrated manner; Setting groundwater regulation process; Monitoring and mapping of groundwater quality for environment protection; Promoting groundwater data management with a State Ground Water Informatics Centre; Preparation of district-wise water management plans; Training, publicity, extension and public awareness and strengthening existing institutional system. The Policy though one of the first attempts by the state to deal comprehensively with groundwater has stepped-in where the overall State Water Policy, 1999 has not been revised and does not provide an incentive based mechanism to encourage large extractors of groundwater to increase their recharge and extract groundwater sustainably.

Matrix-II: Twenty Years Journey of Major Policy Initiatives on groundwater in UP (2000-2020) – Need to learn the lessons from each policy initiative and its implications on the ground

Year	Policy Initiative on Groundwater	Focus
2000	Building Construction and development laws 2000 included provisions on groundwater recharge in urban areas	Urban and peri-urban areas in the entire State
2004	Monitoring of Rainwater harvesting through a high level "Executive Committee, 2004 and issue necessary directions	Urban areas
2004	Declaration of Groundwater department as the Nodal Agency in 2004 for all aspects related to groundwater	All
2005	Rainwater harvesting given impetus by establishing a Technical Co-ordination Committee (TCC) under the chairmanship of District Magistrate in each district, 2005	Urban

[13] For the Draft State Water Policy see **https://upgwd.gov.in/MediaGallery/SWPUP2020DraftFeb20.pdf**
[14] Government Order No 280/60-1-2013-7 WP-2004, TCIII dated 18 February, 2013 and published in Uttar Pradesh Extraordinary Gazette, 2013 **https://cuts citee.org/pdf/Groundwater_Policy_and_Regulatory_Mechanism_in_Uttar_Pradesh.pdf**

2006	In 2006-07, an exhaustive 'Master Plan for rain water harvesting and groundwater recharge in problematic areas of Uttar Pradesh' has been prepared covering 141 blocks of 36 districts and 431 urban bodies.	Rural and urban
2009	'Adarsh Jalsaya Yozna' launched for the revival of water bodies in rural and urban areas in the state.	Rural and urban
2009	In 2009, a major program of rain water harvesting and recharging was started in 130 stressed blocks of the state, with the objective to bring stressed block into safe category.	Rural and urban
2012	An integrated program for rain water harvesting, groundwater recharge and water conservation was launched in year 2012, covering 108 over-exploited and critical blocks of the state	Rural and urban
2015	The 'Mukhya Mantri Jal Bachao Abhiyan' was launched in the state as a major water conservation initiative.	All areas
2015	The State Planning Commission submitted actionable plan to arrest 'Unplanned Groundwater Extraction'	All areas
2017	State Groundwater Conservation Mission, 2017 launched with a focus on stressed areas wherein 54 blocks from Bundelkhand region were selected with the objective to enhance groundwater availability. The Mission required preparation of an Implementable Action Plan by the Groundwater Department for each block.	Bundelkhand focus
2020	Atal Bhujal Yojana launched with a focus on Bundelkhand region in UP covering 20 blocks and 550 gram Panchayats.	Bundelkhand Focus

As it can be seen from the above Matrix that the state has been consistently launching initiatives on groundwater management and it may be noted that almost 30% of the focus of schemes have been on rainwater harvesting which has clearly not picked up momentum in the state. It thus requires a State level planning and reflection to understand the reasons why RWH has not been a success in the State despite a considerable focus by the State Government. The reasons could be attributed to the hap-hazard design of the urban areas and lack of spaces to install rainwater harvesting structures. The other observation is the multiplicity of missions and constant changing nature of their names, though the objectives of each of these missions are common. It is also not clear if the earlier missions were discontinued or assimilated in the new ones. For example the 2007 State Master Plan for recharging groundwater in problematic areas was followed by Adarsh Jalasaya Yojana, 2009. The continuity and convergence of these programs and their outcomes are not known. Similarly, the continuity and convergence between Mukhya Mantri Jal Bachao Yojana, 2015 and State Groundwater Mission, 2017 are not clearly visible.

4.3 *The Uttar Pradesh Ground Water (Management and Regulation) Act, 2019 and the Rules, 2020*

Recently, the state government has enacted the Uttar Pradesh Ground Water (Management and Regulation) Act (UPGWA), 2019 and the Rules, 2020 which shows its commitment to regulate groundwater overuse and exploitation. As it can be inferred, a number of schemes and missions rolled out in the past did not yield any desired results, a law was necessary to enforce compliance. The UPGWA among other things aims at ensuring sustainability and equity in groundwater use. Importantly, the Act establishes an institutional mechanism at the decentralized level to deal with groundwater management. The law provides for the constitution of Gram Panchayat Ground Water Sub-Committee in every Gram Panchayat; Block Panchayat Ground Water Management Committee at the block level and a Municipal Water Management Committee and District Ground Water Management Council at the municipal and district level and the Uttar Pradesh State Ground Water Management and Regulatory Authority at the state level. The State Groundwater Department is the Technical Secretariat to the Authority for identifying areas such as over-exploited and critical blocks and providing information to Councils. The Act empowers the state government to notify areas where groundwater levels have depleted to critical or alarming levels and bans construction of new wells in such areas. It requires registration of drilling agencies and existing commercial, industrial, infrastructural and bulk users of groundwater, preparation of Ground Water Security Plans, fixing ground water abstraction limit and imposing annual fees for ground water drawn.

The Act also has a water quality focus and requires State Groundwater Department to identify and demarcate areas affected by poor water quality both in urban and rural areas and collect information related to groundwater pollution and its sources. A synergy with the State Pollution Control Board must be desirable but does not seem to have been envisaged.

Importantly, the Act provides for self-regulation in rural notified areas. Thus the regulatory provisions of the Act are confined to urban and commercial uses of water and the rural use of groundwater and its management is left to the discretion and expectation from a rural users whereas it is known that rural areas are equally responsible for the over abstraction of groundwater in Uttar Pradesh. However, the major user sectors, agriculture and domestic, have been kept out of the regulatory provisions of the Act. Domestic and agricultural users shall get the registration of their wells only (online or direct). Further, no penal provision shall be applicable on domestic and agricultural users of groundwater. It is thus not clear as to why the Act does not regulate in the rural areas and requires a rural user to self-regulate its use of groundwater in a notified area. This also implies that in a non-notified area, the rural user is not required to self-regulate.

Box-1: Non-applicability of UPGWA, 2019 and the Rules 2020 to rural areas defeats it objectives and fails to address water crisis in Bundelkhand Region

While the UPGWA, 2019 is an important step, its complete lack of regulation of groundwater mismanagement in rural areas can potentially defeat the very purpose for which this law has been enacted and can leave the industry and commercial establishments burdened with the sole responsibility to comply with the law. The rules under this Act have also been framed as the Uttar Pradesh Ground Water (Management and Regulation) Rules, 2020. There are several aspects of this law that requires critical assessment for various reasons but are beyond the scope of this legal brief. The importance of this law for the Bundelkhand Region water crisis is that it will not make much difference to groundwater security and restoration as there are no major industries or bulk groundwater users in Bundelkhand Region. The overexploitation happens at the farm level by the farmers for which the Act provides self-regulation and fails to abate or control groundwater abstraction even in the notified areas.

5. The Atal Bhujal Yojana, (2020-2025) – Locating the role and efficacy of a Central Scheme within the legal and regulatory landscape on groundwater management at the state level in Uttar Pradesh

The Atal Bhujal Yojana (ABY), running from 2020-2025, co-exists with the Uttar Pradesh Groundwater Act (UPGWA) of 2019. This raises a key question: how does a central scheme like ABY, which proposes an institutional framework for groundwater management, interact with an existing state law that establishes its own framework (including bodies like Gram Panchayats)?

To address this, we need to examine the specific role of ABY within UP's legal landscape. Does it offer complementary measures to UPGWA, or is there potential for redundancy? A clearer understanding of their linkages and potential for collaboration is crucial.

5.1 *An Overview of Atal Bhujal Yojana:*

5.1.1 A Central Scheme with financial assistance to support groundwater management:

Foremost, ABY is a Central Government Scheme with the contribution from the Government of India and the World Bank in the 50:50 ratios with a total outlay of INR 6000 crores. These funds are provided to beneficiary states in the form of grants-in-aid to be utilized for groundwater conservation and management. Thus, it can be understood as an external central level mechanism with financial assistance to complement the state's efforts and initiatives. The objective of the ABY is to improve the management of groundwater resources in the water stressed areas of the selected states. This improvement is sought to be achieved through appropriate investment and management actions to be led by the community but ABY does not define community. A community could potentially lead to improvement in groundwater in both rural and urban areas. From other elements of the ABY it can only be inferred that the scheme is more inclined to rural areas.

5.1.2 The two components of ABY:

The ABY has two components that are its defining features as far as the intervention areas are concerned – i) Institutional strengthening; ii) Incentive Component.

(i) Institutionally, the ABY is built on the premise of institutional strengthening and capacity building of institutions involved in groundwater governance in the target states will be done and it aims to route the incentives aimed at rewarding/incentivizing states for working towards long term sustainability of groundwater resources. While institutional capacity improvements have been part of almost all the schemes and initiatives in Uttar Pradesh that we have discussed above, it is the Incentive Component of the ABY that makes it unique and deserves some discussion.

Box-2: The Atal Bhujal Yojana (ABY) breaks New Grounds

The Atal Bhujal Yojana (ABY) breaks new grounds by directly addressing institutional limitations in groundwater management. Unlike previous schemes in Uttar Pradesh, ABY goes beyond just strengthening institutions. It adds a powerful incentive component that rewards states for achieving long-term groundwater sustainability.

(ii) The ABY's Incentive Component allocates funds to state agencies. These funds are used to reward states that successfully achieve convergence between various central and state government schemes. Convergence refers to aligning these programs to work together more effectively. Additionally, the incentive supports interventions that promote sustainable groundwater management through community participation. The amount of funding a state receives is directly linked to its performance on established disbursement.

5.1.3 The Water Budget based Water Security Plans:

In addition to the focus on infrastructure development, the Atal Bhujal Yojana (ABY) emphasizes water budgeting as a crucial tool for planning. This approach involves assessing current and future water needs for both surface and groundwater resources. The Gram Panchayat (GP), with the support of Water Management Committees and District Implementing Partners, takes the lead in preparing a Water Budget. This information then forms the basis for preparing Village Water Security Plans (VWSPs).

VWSPs are five-year plans outlining the interventions and investments required to meet anticipated water demands. These plans can be revised every five years to reflect changing circumstances. The ABY ensures community participation in this process by mandating the Gram Panchayat to prepare VWSPs with the support of relevant committees, such as the Water Management Committee (WMC), Village Water and Sanitation Committee (VWSC), or Participatory Groundwater Management Committee (PGWMC). Furthermore, VWSPs are linked to the Jal Jeevan Mission Scheme at the Gram Panchayat level for a cohesive approach. The final approval of VWSPs rests with the Gram Panchayat, reflecting the program's emphasis on community ownership of sustainable groundwater management initiatives.

5.2 *The missing linkages between the institutional schemes of ABY and the UPGWA, 2019:*

There are a number of contesting issues that could arise due to the existing institutional layout of the ABY. Firstly, the GP as the agency preparing the VWSP is also the approving agency. This could in practice mean that support agencies will prepare the Plan and GP will merely approve it without being necessarily involved in the process thus defeating the capacity building component of the ABY. The ABY lacks clarity regarding its target that which sections of the village community will be targeted - land owners, landless, entire Gram Sabha, is not clear. Thirdly, the ABY is completely delinked and makes no mention of the institutional structure established by the UPGWA, 2020 wherein the Act establishes an institutional mechanism at the decentralized level to deal with groundwater management in the form of Gram Panchayat Ground Water Sub-Committee in every Gram Panchayat; Block Panchayat Ground Water Management Committee at the block level and a Municipal Water Management Committee and District Ground Water Management Council at the municipal and district level. The ABY being limited in its life of five years seems to lack institutional integration by itself by overlooking the existing strengths of the legal and institutional framework on groundwater in Uttar Pradesh.

Box-3: ABY and State Groundwater Law: Interplay and Concerns

The Atal Bhujal Yojna (ABY) and the UP Groundwater Act, 2019 (the Act) have the potential to work together, but with some key considerations. While the Act focuses on self-regulation in rural areas, it lacks provisions for ensuring groundwater sustainability. The ABY aims to bridge this gap by supporting village institutions and incentivizing sustainable practices.

Complementary Strengths, Different Approaches: ABY Addresses a Regulatory Gap:The Act prioritizes self-regulation without penalty mechanisms for overexploitation at the farm/community level. ABY complements this by strengthening village institutions and promoting community-driven management, although it doesn't directly regulate or penalize overuse.

Concerns Regarding ABY Implementation: Top-Down Structure vs. Community Leadership: ABY establishes a multi-tiered committee system involving technical experts up to the district level. This structure raises concerns about Gram Panchayats (GPs) potentially becoming mere approving bodies due to a lack of technical expertise.

Navigating Overlapping Committees: ABY's committee structure needs to clarify how it interacts with the existing Gram Panchayat Groundwater Sub-Committee and other water management bodies

established under the Act at the block and district level. Overlapping structures could hinder effective implementation.

Moving Forward: Ensure ABY empowers GPs by providing technical support and capacity building. Streamline the committee structure to avoid duplication and foster collaboration between ABY and the Act's frameworks. By addressing these concerns, the ABY and the Act can work together to achieve sustainable rural groundwater management in Uttar Pradesh.

6. The Banda Model: Insights for Groundwater Governance

The term refers here "Banda Model "is not a formal term. It is being used in this Legal Brief to generalize two case studies from two different perspectives emerging from the Banda District in Bundelkhand Region, India. The first case involves a top-down approach (district to village) led by a civil servant to improve groundwater availability through traditional water body restoration (ponds, wells, step-wells, etc.). The second case, from Jakhni Village, exemplifies a bottom-up approach where the community transformed a water-scarce village into a surplus one with minimal external support. Both offer valuable lessons for groundwater governance in Uttar Pradesh (UP) and can be integrated into village water security plans under the ABY. A few generic impressions can be drawn from the two case studies.

- *District Leadership Matters:* Strong leadership and community engagement by district administration can significantly improve water conservation efforts, particularly for groundwater.
- *Mobilizing Public Acceptance:* Public awareness campaigns and local dialogues can leverage the connection between groundwater, land rights, and common pool resources. Property owners can then exercise self-regulation as envisioned by the UP Groundwater Act (2019).
- *Community Mobilization:* Effective campaigns and persistent dialogues can empower communities to manage their water resources.
- *Synergy of Schemes:* Convergence of programs like MGNREGS, watershed management, and Jal Jeevan Mission can play a crucial role in achieving water security.
- *Community-led Revival:* Communities possess the potential to revive water bodies and improve groundwater levels without external aid, provided there's strong leadership, inclusivity, and ownership of the initiative.
- *Replicating Success: The Jakhni village model should be replicated by sharing learnings and creating more "Jal Grams" (water villages).*
- *District Support: Proactive villages can be supported by the district administration in their groundwater conservation efforts.*

Case Study-1: Bhujal Badhao-Payjal Bachao Abhiyan (Banda Water Campaign)[15]:

Understanding the implications of water crisis, the Banda District Administration under the supervision of Dr. Heera Lal, I.A.S., the then District Magistrate, had launched a District-wide water conservation campaign (Bhujal Badhao Payjal Bachao Abhiyaan). This experiment led by Banda District authorities focused on sensitizing, mobilizing and incentivizing people in rural Banda District (covering 470 Gram Panchayats) towards treating groundwater as a common resource.

With major focus on community mobilization and participation, Banda District Administration used WaterAid's Jal Choupal model, a model to embed democratic water dialogues at grassroots level, to spread awareness among rural population about the need for water conservation prior to beginning

[15] Various Media Report and the write ups by the Water Aid shared by Dr Heera Lal, former District Magistrate, Banda

the campaign. A total of 470 Jal Choupals were organized in various Gram Panchayats, wherein 35,000 community members were sensitized on water security issues and to foster community ownership towards the campaign. This campaign adopted participatory groundwater conservation and management approach through simple recharge measures through rainwater harvesting structures A total of 2,605 contour trenches were constructed around 2,443 drinking water sources (Hand pumps & wells) and wells were constructed as part of this campaign along with digging/ rehabilitation of 49 minor irrigation ponds, 523 Gram Panchayat community ponds and construction of 840 farm ponds, 82 roof top rain water harvesting-cum-recharge pit structures, 1536 trenches/ recharge pits and 1311 farm bunds. Through this campaign, the Banda District Administration has helped elevate the District's water table by an average of 1.34m which resulted in improved well-being of Banda District's population. The Campaign was led in two major phases as under:

Phase-1 comprised of mobilizing the District Administration and carrying out physical infrastructure works. As part of the Phase-1, a total 2605 trenches were constructed around 260 wells and 2,183 hand-pumps were constructed across 8 blocks and 470 Gram Panchayats in Banda District. As a result of these trenches, an additional recharge capacity of 110001 cubic meters (or kilo litres) per annum has been created. These recharge structures have alleviated drinking water crisis among households in the 470 Gram Panchayats.

Phase- 2 comprised of reviving traditional water bodies (from April to November 2019) and was called 'Kuan Taalab Jiao Abhiyaan' (bring life back to wells and ponds campaign). People from 470 Gram Panchayats in Banda District took charge and got into action to volunteer and implement the campaign to restore and protect their drinking water sources and improve water table through various water recharge initiatives. Construction of water conservation and recharge structures such as farm ponds, minor irrigation ponds, community ponds and recharge pits was completed during this phase along with the installation of rooftop rainwater harvesting systems in government buildings and educational institutions. As a result of this phase, 49 minor irrigation ponds, 249 Gram Panchayats community ponds (under MGNREGS) and 274 Gram Panchayats community ponds (under Gram Nidhi) were rehabilitated or dug, 840 farm ponds (Khet Talabs), 82 roof top rain water harvesting-cum- recharge pit structures in different government buildings, 1536 trenches/ recharge pits in educational institutions and 1311 farm bunds were constructed. During this period, technical models for the construction of contour trenches, rain water harvesting structures, farm ponds were developed and disseminated through public campaigns by the District Administration. Booklets and posters printed in Hindi, the local language were extensively distributed among community members as part of the Information, Education and Communication (IEC).

Case Study 2: "Khet par med, med par ped" (Fields Bounded by Trees) - Jakhni Village: A Water Conservation Oasis in Bundelkhand

Jakhni village in Banda district, once water-scarce, has become a beacon of hope for water conservation in the Bundelkhand region. Through a community-driven initiative led by a farmer Mr. Uma Shankar Pandey, the village revived 6 ponds and 30 wells, significantly raising the groundwater level. Their motto, "khet par med, med par ped" (every farm to have a water boundary and trees over them), exemplifies their holistic approach. The Jakhni campaign focused on retaining rainwater within village boundaries through various methods. This included reviving traditional water bodies and promoting tree planting. By storing water in fields surrounded by trees on bunds (raised embankments), they not only increased the water table but also created a microclimate conducive to water conservation. This cohesive, community-based water management strategy has led to a dramatic improvement in Jakhni's water situation. Increased agricultural production has transformed Jakhni into one of the most prosperous villages in Uttar Pradesh. Jakhni's success story serves as a powerful example of how community participation and simple, yet effective, water conservation practices can create a sustainable and thriving environment.

7. Strengthening the Policy and Legal Framework for Groundwater Conservation in Bundelkhand Region

- *Formalize and Adopt the State Water Policy:* While the National Water Policy-2012 offers guidance, Uttar Pradesh needs to formally adopt its own comprehensive draft water policy-2020. This policy should explicitly declare groundwater a community resource.
- *Link Disaster Management and Groundwater Regulation:* Despite facing frequent droughts, Bundelkhand Region lacks a strong connection between its disaster management framework and groundwater conservation efforts. The state should integrate its Groundwater Regulatory Framework with the Disaster Management Law to prioritize groundwater security in drought-prone areas vulnerable to climate change.
- *Learn from Past Initiatives:* The Uttar Pradesh government has undertaken various groundwater management initiatives since 2000. However, these experiences, both successes and limitations, haven't been fully utilized to improve current conservation efforts.
- *Implement the Draft Water Policy:* The Draft Uttar Pradesh Water Policy (2020) should be formally adopted to enact its measures for improving the groundwater situation in Bundelkhand Region
- *Expand Groundwater Regulation:* The Uttar Pradesh Groundwater (Regulation and Management) Act, 2019, needs to be extended to rural areas and farmers through a phased approach with appropriate clearance mechanisms. Without this, the Act's impact on curbing groundwater insecurity will be minimal.
- *Synergy between Atal Bhujal Yojana and UP Groundwater Act:* The Atal Bhujal Yojana (ABY) and the UP Groundwater Act (2019) have complementary objectives. ABY fills the gap by supporting self-regulation in rural areas through capacity building and incentives.
- *Align Institutional Mechanisms:* The institutional structures under ABY and the UP Groundwater Act needs to be aligned. This will provide statutory backing to ABY beyond its five-year life span.
- *Scale up Successful Initiatives:* The successes of the Banda Water Campaign and Jakhni village need to be documented, institutionalized, and widely shared. This will facilitate their replication in other Bundelkhand Region districts and villages, and beyond.

India Water Partnership (IWP):

IWP is a non-profit organisation with the goal of propagating, promoting and supporting Integrated Water Resources Management in India. It has also been accredited by Global Water Partnership (GWP) as Country Water Partnership. IWP Vision is “A Water Secure India [with participation of all stakeholders]” and Mission is “Sustainable and Inclusive Water Management at National, Regional, River basin/Sub-basin and Local Levels in India”. IWP works towards water security in India by following the concept of Integrated Water Resources Management (IWRM). It engages in a dispassionate analysis of various water-related issues and steers the policy discourse on social, economic, and ecological issues on a scientific basis.

Indian Environment Law Organization (IELO):

IELO is a law firm dedicated to the evolution and progressive development of environment and development laws through. IELO’s mission is to make development more inclusive, equitable, sustainable and benign, with committed legal services in the field of natural resource law and environmental law. IELO strives to bring to the fore critical environmental concerns and imperatives so that these are incorporated in the development policies and laws of the country.

Annexure 3: Ground Report on Multi-Stakeholder Engagement and Village level Community Dialogue

The Annexure compiles the discussions held during the project period with various Stakeholders along with their Recommendations.

Stakeholders	Discussion to assess Ground Water Situation	Outcomes	Conclusions	Recommendations
Dr. Heera Lal, I.A.S., Former District Magistrate, Banda, Uttar Pradesh	Knowing about the details behind the success of Bhujal badhao Payjal Bachao abhiyaan during 2018-2019 in Banda.	• Ran training and awareness camp at each gram panchayat and urban center in Banda educating people about the idea and benefits of Water Budgeting and importance of water conservation. • Created a formal district level Water Committee comprising of key officials from all water related departments, civil society members and technical water experts. • Pooled-in funds and resources available in different departments, channelizing their synergies towards campaign. Initiated phase one with voluntary work and in phase two, utilized resources from MGNREGA, Khet Taalab Yojna, RWH etc. • Adopted efficient water-use practices such as Trench digging; Rejuvenation of old water sources; Creation of new ponds; and building Rain water harvesting structures. • Improved the rate of Ground Water Level	Satisfies five DLI's of Atal Bhujal Yojana Guidelines: **DLI#1 -** Public disclosure of groundwater data / information and reports: This DLI incentivizes the strengthening of groundwater management institutions to ensure collection and public disclosure of groundwater related information.- Created **Jal Choupal:** Training and awareness camp held at each gram panchayat and urban center educating people about the idea and benefits of Water Budgeting and importance of water conservation **DLI#2** - Preparation of Community-led Water Security Plans. This incentivizes the roll-out of a standardized bottom-up participatory groundwater management process.- Created a formal district level Water Committee comprising of key officials from all water related departments, civil society members and technical water experts and village level community dialogue confirms that water security plan is there. **DLI#3** - Public financing of approved Water Security Plans through convergence of ongoing/new schemes. The DLI incentivizes the use of the standardised bottom-up groundwater planning process to improve the effectiveness of public financing and align implementation of various government programs on groundwater. Pooled in funds and resources available in different departments, channelizing their synergies towards campaign. Initiated phase one with voluntary work and in phase two, utilized resources from MGNREGA, Khet Taalab Yojna, RWH etc **DLI#4** - Adoption of practices for efficient water use which incentivize the implementation of demand-side measures within the WSPs and signals the importance of shifting focus away from supply side measures toward demand-side measures to improve groundwater conditions. Undertook: Trench digging; Rejuvenation of old water sources; Creation of new ponds and building Rain water harvesting structures. **DLI#5**-Improvement in the rate of decline of groundwater levels incentivizes the arrest in decline of groundwater levels. There is a report from Minor Irrigation Department of U.P. Government that "net average water table increased (post-monsoon) in 2019 by 1.34m with respect to 2018". 1.35 m is the average of blocks Baberu, Badokhar, Bisanda, Japura, Kamasin, Mahuwa, Naraini and Tindwari.	• Village level dialogue with Gram Pradhaan and other committee members confirmed that water security plan is there however, ponds and wells that were dug and plantations that were conducted requires maintenance for which technical and financial intervention is required. • To maintain water table in Banda, collective effort with public participation and inter-departmental cooperation needs to be arranged which will be possible if schemes and laws governing the subjects of each department are not in contradiction but in consonance with each other. • Central Sponsored Schemes and State Sponsored Schemes must be converged to improve the financial resources for implementing the projects. • The campaign "Bhujal badhao Payjal Bachao"satisfies the five Disbursement Linked Indicators of Atal Bhujal Yojana Guidelines but it should be institutionalized.

Stakeholders	Discussion to assess Ground Water Situation	Outcomes	Conclusions	Recommendations
Shri Prem Singh (Ata Bhujal Yojana Representative)	Seeking recommendation to improve upon Bhujal badhao Payjal Bacho abhiyaan	Suggested improvisation of in Bhujal badhao Payjal Bacho abhiyaan via stating that 1/3 part of the land must be utilized for planting trees/ fruit bearing trees; 5% of the land holding must have a talaab for water harvesting; 1/3rd of the agricultural land should be utilized for growing fodder for cattle as their dung helps in water retention capacity in soil, therefore, water recharge is not possible without cow dung, bird/hen droppings, and goat manure and 1/3rd of the land must be utilized for growing crops.	• Bhujal badhao Payjal Bacho abhiyaan was successful however, it is not institutionalized. • Schemes and policies on different subjects must not be contradictory but should be inter-linked. Eg: In Tindwari (Semi-Critical Block), through Atal Bhujal Yojana, government is offering subsidy of Rs. 7 lakh which is encouraging people to have tubewells (affects ground water) on their lands. Furthermore, government has reduced the budged for talaabs which are more suitable for rainwater harvesting and is providing financial incentives for digging of tube well which will further deteriorate the ground water level. Another example is that: People wants to plant trees(orchard) under horticulture schemes (which is a required in the terrain for restoring ground water level) however, the contradictions are that the department says that there is a backlog because the target is for limited hectares.	• Incentives in the form of health benefits and carbon trade-offs must be provided for people to undertake Ground water conservation measures. • Ground water cannot rise with construction of ponds and wells but also requires other measures such as plantation of trees to increase percolation, and mixing cow dung in the soil to increase porosity for maximizing water retention capacity of the soil. Planting trees on 1/3rd of the land; Digging a pond for water harvesting in 5% of the land holding; Growing fodder for cattle in 1/3rd of the agricultural land; and Growing multiple crops in 1/3rd of the land has led to increase in 30-40% productivity and increase in ground water level in Prem Singh's Orchard. • Third party auditing or verification to ascertain the practices followed by the farmers are sustainable; that the farmer is maintaining the plantations; and that the traditional knowledge combined with sustainable practices has produced positive results such as increase in ground water level as also reiterated in Atal Bhujal Yojana Guidelines that achievement of DLIs results would provide disbursements of the funds to the states based on their measurement and verification by a third party Verification Agency. • Trees like babool, kikar, and reeyan trees, absorb the salt from the land so wherever, the goat and the cattle will graze, the babool trees will grow, if babool trees are planted on a land for two generations, the degraded land restores itself. • Schemes like Usar Yojana, must not be implemented because it utilizes soil improver (gypsum/pyrite) for soil improvement whereas calcium when mixed with Gypsum gives a chemical reaction due to which the barrenness of the Rakar land never leaves keeping the land degraded and barren. • Agriculture policy, forest department policy, animal husbandry and dairy policy, fisheries policy, and soil and water policy should be inter-linked to avoid contradictory provisions.

Stakeholders	Discussion to assess Ground Water Situation	Outcomes	Conclusions	Recommendations
Shri Akhilesh (Atal Bhujal Yojana Representative); Village Community along with Shri Laxman Prasad (Gaon Pradhaan) and by Shri Ashok (Runs NGO, Abhiyan)	• Assess ground water level situation in Mau (Girwa) Block Muhuwa. • Threats regarding ground water • Conservation measures that could be undertaken under government schemes	• Acknowledged that the ground water is in "safe" zone. • Pointed out that water level is between 50 feet to 150 feet below the ground. • Informed that Ground Water level is more near Ken River. However, in summers the water strata falls. • Clarified that government schemes are being utilized to construct ponds and trees. However, very few people are able to sustain the plantations. • Pointed out that fencing with barbed wires are inappropriate to hold off the animals. • Stated that 3-4 Ponds were dug in the village under Bhujal Badhao Payjal Bachao campaign. • Informed that all the tubewells are dug below 150 feet in the village. • Confirmed that village community is prepared to undertake communal farming. • Requested for lift irrigation. • Informed that 100% agricultural produce is harvested by application of urea whereas 0% utilization of organic fertilizer is happening. • Irrigation tax is paid by the farmers with land holding of 10 bigas and beyond and for farmers with less than 10 bigas, there is no irrigation tax. However, one piece of land with two or more owners if is more than 10 bigas, also has to pay irrigation tax. • Sumer Civil is at home for domestic/drinking use only. • Overhead tanks dug beside river Yamuna are utilized by private contractors for filling surface water of Yamuna River and from these overhead tanks the water is being distributed to cluster of villages via pipelines. • Apart from village Mau(Girwa) all other villages in Mahuwa block are not safe for drinking as having arsenic in their drinking water. • Village community also informed that rather than constructing artificial water harvesting structures, the rooftop rainwater can be stored in a well near the house, however, this needs to be registered with MGNREGA scheme. • Water User Associations are also formed under Panchayati Raj Act.	• The village is in safe zone as reiterated in the Ground Water Estimation Report 2022. • Water level is uneven throughout the village. • Ground Water is being recharged through streams. • Animals like cows, bulls, goats, and nilgai (Boselaphus tragocamelus) destroys the plantations. • Medhbandi is in very few fields because village community do not avail Pradhan Mantri Rozgar Yojana. • Government schemes like Pradhan Mantri Rozgar Yojana offer late and less payments (Rs. 230 per day) therefore, village community do not avail these schemes. • 3-4 Ponds were dug in the village under Bhujal Badhao Payjal Bachao campaign. However, these ponds are dry and agricultural fields are irrigated through tubewells and surface water (streams). • Village Community did not avail any government scheme for digging tubewells because incentives are not offered if tubewells are dug below 150 feet but above 250 feet. • Village community proposed santalikaran before gram sabha but as informed, gram sabha did not fund the work. The work is a hard and time consuming manual labour therefore, community demanded mechanical intervention. • Agricultural land is less and people are more so to satisfy the food requirements, village community is utilizing urea to improve their agricultural produce which in turn is polluting ground water. • Water distribution through pipelines is being undertaken by Private Contractors. • Pollutants like arsenic will increase in surface water.	• If Government schemes like MGNREGA, Horticulture schemes are converged; rate of daily wages is increased; and new plantation schemes are introduced then plantation status in the village can improve. • Government Schemes must be implemented according to the soil quality of the land like fields laden with Black Cotton Soil(Mar) should be irrigated using ponds whereas fields with "Paruwa" which is also called "Peeli mitti" should have "wells" for irrigation. Fields in which digging of wells and ponds is required must not only get complete incentive despite the depth of the well; and length, width and depth of the pond but should also get appropriate mechanical support. • To ensure that water doesn't run-off in rivers due to the rocky terrain of the village, the water security plans must have provision for: ○ Gradient Levelling (Santalikaran) with appropriate mechanical support (such as tractor, JCB etc.,) to dig more soil in less time for places woth rocky terrain. ○ Then tree plantations (vriksharopan), around agricultural fields (medhbandhi) must happen with fencing. (with barbed wire/electrical barbed wire) which may be more appropriate to hold-off animals. Medhbandi with Arhar will be advantageous because its leaves are natural fertilizers for the crops. ○ Then Communal Farming (samuhik kheti) must be encouraged to reduce costs of fencing for each farmer. It will also satisfy the criteria of having certain plantations along with water harvesting structures, animal sheds and agricultural produce but separate gates through fencing for each farmer to enter into their agricultural fields. • Usage of organic fertilizer must be encouraged and livelihood avenues within the village must be generated. For which the government schemes for Farmers Producer Organizations or Animal Husbandry and other Horticulture Schemes must be availed. Mau's land in Mahuwa block is suitable for horticulture, production of fruits like custard apple, Java plum (jamun), Indian gooseberry (amla) so it can generate livelihood opportunities for village community. For construction of infrastructure like cold-chain, or other storage structures, the infertile lands must be used. • Water Security Plans must provide for recharge of ponds to avoid over-exploited aquifers. Over-exploited acquirers would dissuade farmers from using traditional methods of farming which were more sustainable, reliable and did not put unnecessary burden on agricultural land to increase productivity. • Bureau of Indian Standards specification(BIS Standards) for drinking water must be complied for both surface and ground water consumption whereas BIS standards for wastewater re-use and re-cycle must also be complied with.

Stakeholders	Discussion to assess Ground Water Situation	Outcomes	Conclusions	Recommendations
Shri Sanjeev Kumar Baghel, Banda District Economics & Statistics Officer, Planning	• Mobilization is not self-driven. • Suggestions on interventions to manage urban ground water.	• Jaspura is a water stressed area, and therein ground water project under Jal Jeevan Mission is being implemented. • Ponds identified in Amrit Sarovar in Urban areas in Banda are underutlized therefore there is water scarcity in urban areas.	• Surface Water should be utilized for implementing projects in water-stressed areas. • Source supply must be sustainable and if utilizing ground water for source then its contradicting sustainability.	• The Scheme is there for extracting water from the surface but extracting from ground is contradictory and unsustainable. Policies and laws must specify on source of extraction. • Urban areas should be treated like a city basin to manage water supply. City Basin Plans must be made to provide for urban water planning. • City Basin Plan would incorporate basin points wherein water collection can happen. If gradients are made in basin points and footpaths/pavements are also percolated then water can be collected because water in the cities also percolates in ponds available in urban areas. Smart City Mission can be utilized for executing city basin plans. • Ponds and Wells in Urban Areas must be utilized for water harvesting. • Grey Water should be treated using net to filter contaminants without littering and the treated water can be utilized for urban grazing. Eg: A Pune based startup has created a user-friendly recycling system for reuse of greywater in activities, such as gardening, floor cleaning, and toilet flushing. • Recycling and reusing waste water would conserve fresh water resources. However, there is under-utilization of installed capacity of treatment plants and capacity expansion of treatment plants requires time and more space. • Check dams must be constructed with technical innovation and design so that they are easily accessible by people. Public Participation should be regular. Capacity Building of Panchayat should be made mandatory to ensure maintenance of soak pit structures and plantations.

Annexure 3.1: Photographs of Village Community Dialogue

Gram Jal Shivir (Village Community Dialogue) held at Mau Girwaan village, Mahua block, Banda District, Uttar Pradesh on issues pertaining to water scarcity in Banda with Shri Laxman Prasad, Gram Pradhaan (Village Head) and Village Community

Shri Ashok of NGO Abhiyaan addressing the village community of Mau Girwaan village regarding importance of water conservation

Shri Akhilesh (Atal Bhujal Yojana Representative) addressing the village community of Mau Girwaan village about Atal Bhujal Yojana

Global Water Partnership South Asia

India Water Partnership

ielo indian environment law organization

Towards a Multi-stakeholder Assessment of Atal Jal:

Anchoring Integrated Water Resource Management through the Participatory Groundwater Conservation and Management in Uttar Pradesh

28.12.2023

Annual General Meeting

India Water Partnership

Anchoring IWRM through PGWM: sharing the journey

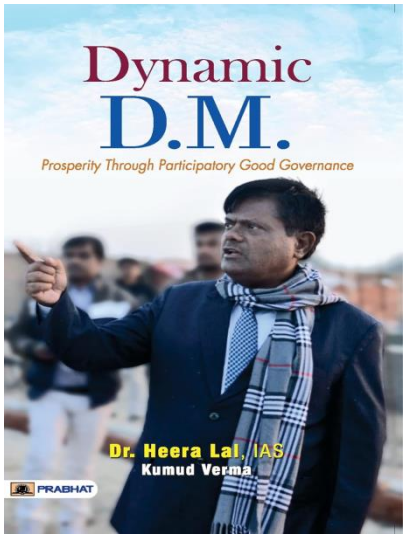
2021: Research and Engagement → **Paradox on Two accounts:** → **2023: IWP-IELO zoomed into Banda Model (Bhoojal Badhao, Peyjal Badhao)** → **Impressive numbers; Whether Policy Lessons and GW reforms?**

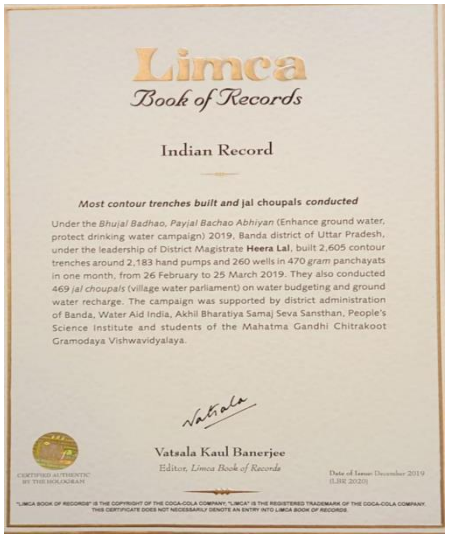
Lucknow Resolution on Groundwater

The UP Groundwater Management and Regulation Act, 2019 and Rules 2020

Atal Bhujal Yojna rollout in UP – PGWM

Evidenced by Arti Vs Central Groundwater Authority, NGT: 2022





Process, Policy Lessons and Way Forward

Analysis: Deep Dive Comparative Perspective of Atal Jal, UP Framework and Banda Model

(Draft) Framework of Policy Issues

Engagement and Capacity Enhancement

Policy Recommendations and Policy Brief

- **Lessons:**

❖ Banda Model (Bhujal Badhao-Peyjal Bacho) is a individual stewardship driven model – its not been institutionalized but success story on community mobilization

❖ Non-convergence of financial schemes ails groundwater conservation efforts (disbursement linked indicators of ABY)

❖ Leadership role of Panchayats on Groundwater is not activated – rights without duties

❖ Village water budgets is a useful tool/works

❖ Groundwater laws have no ground level impact

- **Way Forward**

❖ Iron out the Friction, overlap and cross-purposes of policies (Usar Yojna- use of gypsum/soil improver)

❖ Interlinking of Water sector schemes which are delinked with soil, agri, forestry and horticulture schemes both structurally and financially (MNREGA rate increased)

❖ Institutional strengthening of GPs at all levels

❖ State wide support Preparation of proposals by the Pradhan for the ABY

❖ Incentives under the UP Groundwater Act, 2019 to the villages with GW improvement works.

❖ Gradient leveling, Med bandi and community farming – Legal intervention

Way Forward: The Groundwater Policy Assessment Criteria

- Elements that inform the Framework

Policy/Goals adopted based on the Societal Challenges identified by the Governments

Policies/Goals are translated into objectives

Criteria to be put in place for assessing effectiveness of a groundwater policy/law

- Inferences

- **Formal statement** of Long term desired results/achievements. Ex. Having 33% of the TGA under forest and tree cover

Ex. To have increased carbon sequestration, livelihoods, biodiversity benefits so forth

Effectiveness: extent of the area benefitted?
Cost: investments required to achieve?
Technical: existing and required capacities
Political: Public acceptance and long term benefits, trade-offs
How these objectives can be achieved?

Criteria is a measurable dimension of an objective

Annexure 5: Comparative Evaluation of Bhujal Badhao Payjal Bachao Abhiyaan and Atal Bhujal Yojana

Heads	Atal Bhujal Yojana Guidelines	Bhujal Badhao Payjal Bachao Abhiyaan	Implementation Aspects/ Difference/Similarities
Institutional Arrangements	A four-tier institutional mechanism at National, State, District and Gram Panchayat levels with necessary linkages has been envisaged under the scheme. **State Inter-Departmental Steering Committee** is to be formulated at the state level for overall administration, management and coordination of Atal Bhujal Yojana in respective States. **State Level Inter-Departmental Steering Committee would include** regional Directors of Central Groundwater Board and is supposed to render technical support to SPMU as well as District Program Management Unit (DPMU) including sharing of NAQUIM data and information for effective implementation of the scheme. Within the program implementation unit, will be constituted / arrangement made, which will be referred to as **State Program Management Unit (SPMU).** The SPMU shall be headed by an officer of the rank of Commissioner/Chief Engineer/Director. The head of the SPMU shall be nominated as Project Director and will be the Nodal officer for the scheme in the State. SPMU will have posting/deployment of 4-5 officers from the state on full time basis which will form the Core Staff. Each State shall establish a **District Program Management Unit (DPMU),** responsible for planning and supervision of implementation of the scheme at the District level. The DPMU will be responsible for planning and supervision of implementation of the scheme at the District level. DPMU shall be headed by the District Collector/CEO Zilla Parishad who shall directly report to the Project Coordinator and work in consultation with SPMU. U.P has formulated **State Level Inter-Departmental Steering Committee; State Program Management Unit (SPMU); and District Program Management Unit (DPMU**	The campaign involved the **District administration** who had complete leadership, over the campaign covering all of different departments for planning, progress and review and leverage financial resources for programme activities. **Rural development department**: Converged funds from MGNREGA for the cleaning and digging of the pond under the scheme and incorporating National Rural Livelihood Mission for focusing on maximum women participation for their benefits and involving them in water activities pro-actively. **Agriculture Department**: Implementing of departmental Khet Talab Yojana. **Panchayati Raj Department**: For the implementation of Jal chaupal at grassroot level and for awareness activities involving GPs Pradhans (GP Heads), GP Sachivs (GPs Secretaries) and GPs Lekhpals (GP Land Accountants) and Village Level Workers (VLWs). Repair, care and development of new water bodies with Gaon Sabha Fund under written direction of DM and as mandate. **Wateraid & Akhil Bhartiya Samaj Seva Sansthan, Banda**: For the technical support and innovation planning of the activities, monitoring and advises changes required. **Minor Irrigation**: For technical guidance in the construction activities and care, repair and development of new ponds from departmental budget. **Information Department**: For providing information using social media, newspaper, digital media and other media so community can get information and can be part of campaign.	**<u>In Atal Bhujal Yojana Guidelines:</u>** • The DPMU is constituted under District Magistrate on 21.05.2020 in Uttar Pradesh and includes District Agriculture Officer; Executive Engineer, Irrigation Department; District Horticulture Officer; Divisional Forest Officer; Executive Engineer, Uttar Pradesh Jal Nigam; District Panchayat Raj Officer; Block Development Officer related to the project; Gram Panchayat Officer related to the project; Regional Director, Central Ground Water Board nominated representative. DPMU is responsible for implementation of the scheme at the district level. • The SPMU is headed by Project Director and Director of Ground Water Department is heading it wherein Executive Engineer/Senior Hydro-geologist, of Ground Water Department is hired as a technical head; Assistant Engineer/Hydrologist of Ground Water Department is hired as assistant to technical head of the district that includes Banda; and Finance and Accounts Officer of Ground Water Department is hired as Finance and Accounts Officer. The SPMU is also formulated in the State of Uttar Pradesh. **<u>In Bhujal Badhao Payjal Bachao Abhiyan:</u>** • Dr. Heera Lal had constituted the District Level Water Committee headed by District Magistrate, Dr. Heera Lal himself and included Water Aid for technical support; Panchayati Raj Department for the implementation of Jal chaupal at grassroot level; Minor Irrigation: For technical guidance in the construction activities and care, repair; and Rural Development for converging the schemes such as NRLM and MGNREGA. • Moreover, Dr. Heera Lal had undertaken a different approach of implementation wherein by his order, he either directed a team of liaison officers to be formulated to supervise the successful events as part of the campaign or directed the formulation of nodal officer for each scope of work within the event. Such orders were issued for event like Jal Hasya on 15.01.2020; and Khichdi bhog(Feast) on 8.01.2020 wherein team of liaison officers was formed and, he had also constituted a nodal officer for each scope of work for event of Ken Aarti on 23.11.2019.

Heads	Atal Bhujal Yojana Guidelines	Bhujal Badhao Payjal Bachao Abhiyaan	Implementation Aspects/ Difference/Similarities
Activities at Gram Panchayat Level	Important activities at the **GP level** will include: i) ensuring community participation in planning sustainable management of ground water, ii) development of GP level water budgets and iii) preparation of GP-level Water Security Plans (WSPs). iv) Assistance in implementation of WSP; v) taking part in social audit and vi) Utilization and management of Assets created in the Scheme. **Water Management Committees / Village Water and Sanitation Committees-** Every GP may strengthen the Village Water & Sanitation Committees that already exist with additional co-opted members including women. This strengthened VWSC will function as the Participatory Groundwater Management Committee (PGWMC).	• Influenced and encouraged Uttar Pradesh's gram sabhas to make plans for water conservation activities and also monitor progress every six months. • Involved NRLM, focusing on maximum women participation for their benefits and involved them in water activities pro-actively.	Herein, the focus of Dr. Heera Lal was on Supply Side Interventions such as rejuvenating ponds and cleaning rivers like Ken and Baghain. Jal Choupal model of water aid was utilized to generate awareness. However, scientific knowledge regarding the depleting status of ground water was not known to the community of Banda. Moreover, the community was mobilized to improve the surface water structures.
Reuse of wastewater	• The guidelines excludes 'Major industrial wastewater collection, treatment, and recharging the same through injection' from potential investment'. • However, it emphasizes upon use of recycled / reused water for irrigation, water collection ponds between agricultural fields to trap excess water/rainwater for reuse of same for micro-irrigation and Use of recycled / reused water for irrigation. • Other activity excluded from potential investment is construction of major dams and new largescale irrigation systems and; any investments that could fall under paragraph 9 of the PforR Policy as "Activities that are judged to be likely to have significant adverse impacts that are sensitive, diverse, or unprecedented on the environment and/or affected people are not eligible for the Financing and are excluded from the Scheme"	Emphasize upon water conservation techniques and recharge of water bodies via community participation, targeting demand side interventions. Does not talk about reuse of waste water for irrigation. Engaged Dept. of Minor Irrigation for technical guidance in the construction activities and care, repair and development of new ponds from departmental budget.	• Major industrial wastewater collection, treatment, and recharging the same through injection is excluded from the funding within the guidelines. However, 'minor industrial wastewater collection, and treatment, is not dissuaded and is considered for investments. • Dr. Heera Lal's Campaign does not address reuse or recycling of water for irrigation.
Disbursement of incentives	DoWR, RD & GR, will hire/engage a suitable Government agency, Third Party Government Verification Agency (TPGVA) to verify the achievements of identified predefined targets to assess the performance of implementing agencies, which will, in turn, trigger payment of incentives to them. The verification shall measure and provide statistically representative estimates for progress made by all States/Districts/Blocks/GPs against DLIs. The agency shall present verification reports to DoWR, RD&GR that will form the basis for disbursement of Incentives to States.	-	Third Party Government Verification Agency (TPGVA) to verify the achievements of identified predefined targets to assess the performance of implementing agencies whereas during in Dr. Heera Lal's work, Irrigation Department identified the achievements via measuring the ground water level. However, it needs to be verified on ground.

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Convergence	• The Scheme will necessarily converge with other programs that strengthen water conservation and use, such as the Jal Jeevan Mission, the Swachh Bharat Mission, MGNREGS, PMKSY, state level schemes etc. • Funds under the incentive component of Atal Bhujal Yojana will be released to states as incentive for ensuring convergence among various schemes of the central and state governments as well as taking up activities /interventions that promote sustainable groundwater management through community participation. • The disbursement under this component will be linked with performance of states against the identified Disbursement Linked Indicators (DLIs) which will be independently verified and reported by a third party.	Funds from public schemes like MNREGA were utilized by Gram Pradhans to clean the kuan's and desilt the talab's.	Funds under the incentive component of Atal Bhujal Yojana will be released to states as incentive for ensuring convergence among various schemes of the central and state governments as well as taking up activities /interventions that promote sustainable groundwater management through community participation. In Bhujal Badhao Payjal Bachao Abhiyaan, the funds from MNREGA were converged. Atal Bhujal Yojana supports convergence whereas Bhujal Badhao Payjal Bachao did utilize funds from MGNREGA.

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Disbursement Linked Indicators	**Five DLI are provided:** 1. Public disclosure of groundwater data / information and reports: Data from all participating GPs in a block will be collected, compiled, collated and brought out as a report at the block level. Thus, this DLI consists of two sub-indicators measuring (a) the number of GPs for which periodic water-level data is available and (b) the number of block-level reports on groundwater quantity and quality data made available online in the public domain. The collected data need to be disclosed to the general public in an appropriate way. The disbursement of incentive under the DLI is subject to performance of the states to be verified by the Third-Party Government Verification Agency (TPGVA) as per the standard protocol developed for the purpose. 2. Preparation of Community-led Water Security Plans (numbers): This indicator incentivizes bottom-up planning of groundwater interventions through preparation and up-dation of water budget and Water Security Plans (WSP) that have been formulated by the community following the standard templates created under the MIS of Atal Bhujal Yojana Portal. The Participation of women in the planning process is a prerequisite under this DLI. Various supply and demand side interventions will be detailed in the Water Security Plans which will be implemented through convergence of funds available under Central / State schemes. Necessary hand-holding and guidance will be provided to the community through activities undertaken in the Institutional Strengthening & Capacity Building component. 3. Public financing of approved Water Security Plans through convergence of ongoing /new schemes: Provides an incentive to shift public financing on groundwater to priority measures identified through the bottom-up groundwater planning process i.e. the water security plans. This will help align the implementation of various government programs and improve the effectiveness of public financing on groundwater by moving to more coordinated investment in sustainable groundwater management. The DLI is defined as the aggregate amount of funds (excluding Atal Bhujal Yojana) spent in a selected state in a given Year for implementation of approved WSP activities. 4. Adoption of practices for efficient water use (hectare): The DLI will incentivize measures that reduce water consumption, including the introduction of efficient micro-irrigation systems and a shift in cropping patterns away from water-intensive crops including promotion of rain-fed horticulture and feeder separation. Disbursements will be based on the area (in hectares) or the number of blocks (in case of feeder separation) benefiting from these measures. 5. Improvement in the rate of decline of groundwater levels: A block is verified to have achieved the DLI if there is an improvement in the declining trend of groundwater levels (rainfall and Trend corrected in at least 50% of the observation wells in a given block as compared to the baseline trend. The disbursements for DLI #5 are scalable based on the level of achievement of the DLI. The disbursement of funds under this DLI will be linked with achievement of the Program's ultimate aim, that is, to stabilize or reverse the declining trend in groundwater levels. The states will be rewarded for stabilizing or improving groundwater conditions through interventions supported under the scheme and other related programs. DLI will be based on a measure of groundwater levels in the selected blocks.	DLI -1: Jal Chopal Model of Wateraid was utilized to disseminate the disclosure of data related to water. Awareness campaigns were held in jal chopals for sensitizing the public regarding the ground water information. DLI -2: The campaign encouraged the gram panchayat to make water security plans. DLI- 3: Public funds from MGNREGA were converged to implement the campaign. DLI- 4: Focuses on reducing demand for water. Herein, Trench digging; Rejuvenation of old water sources; Creation of new ponds and building Rain water harvesting structures was undertaken. DLI -5: Herein, the irrigation department verified the improvement in the water table.	The focus of Dr. Heera Lal was on Supply Side Interventions such as rejuvenating ponds; desilting rivers like Ken and Baghain; creating other surface water storage structures; and undertake large scale forestry for the purpose of Medbandhi. Jal Choupal model of water aid was utilized to generate awareness. However, scientific knowledge regarding the depleting status of ground water was not known to the community of Banda. Moreover, the community was mobilized to improve the surface water structures. During his tenure the water level rose by 1.34 meters. In regard to lack of scientific knowledge of ground water, other relevant interventions such as recharging aquifers of stressed areas with huge quantity of water were not the focus of Bhujal Badhao Payjal Bachao Abhiyan.

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Performance Grants	• Various activities and indicators linked to DLI, will be incentivized by disbursements as 'Performance Grants. <u>Key Activities under strengthening of institutional framework for effective groundwater data monitoring and disclosure includes:</u> • Improvement in monitoring of groundwater related data Groundwater data reporting, including its public disclosure (water quality and groundwater levels) by the states which includes preparation and implementation of Water Security Plans (WSPs)incorporating water budgets by each gram panchayat, community participation, Preparation and submission of WSPs by the GP to the DPMU for approval; Updating and Implementation of WSPs year-on-year, Adoption of participatory groundwater management practices by GPs. • The actual/measured impact on groundwater levels from the institutional strengthening/ capacity building /management actions implemented in line with the approved WSPs. • Non-disbursing indicators that will track progress in achieving the results include Persons benefiting from improved groundwater management; Persons benefiting from interventions (total beneficiaries including women); The number of WUAs/User Committees having representation of women; and Introduction of metering of groundwater and energy usage by way of availability of data at the GP level. <u>Key Activities under Improved planning and implementation of groundwater management interventions (Incentive Component):</u> Positive performance/achievement by the states will be rewarded with disbursements on the following criteria: (a) Extent of convergence for supply-and demand-side measures under ongoing and new schemes from central and state governments in the approved WSPs. (b) Increase in area with improved water efficient irrigation systems or using recycled waste water / reused water, crop diversification, or feeder separation. (c) Non-disbursing indicators that will track progress in achieving results include, but are not limited to, (i) Additional state-level groundwater quality labs accredited with National Accreditation Board for Testing and Calibration Laboratories (NABL); (ii) Procurement of necessary equipment, works, goods, and services (for example, groundwater quality monitoring systems, Digital Water Level Recorders (DWLRs), water/energy/flow metres , rain gauges, water-level measuring tapes, computers and peripherals, software, micro-irrigation systems /sprinkler/s, other efficient irrigation equipment / systems /measures, construction of Piezometers, and so on) so that the various entities involved in implementing the scheme can fulfil their mandates.		

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Training, Capacity Building & Awareness Creation	• Capacities required at GP/Block level include skills in community mobilization, data collection (both technical and non-technical), water budgeting and preparation of Water Security Plan (WSP). Key persons at this level include elected members of GP/Block, Water Management Committee (WMC) / Village Water and Sanitation Committee (VWSC), Water User Association (WUA). Women drawn from the existing Self-Help Groups (SHGs) would constitute a substantial number of the WMC/VWMC. • At District/Division level, capacities required at this level include skills in data compilation (both technical and non-technical), review of GP water budgets, review of GP level WSPs, preparation of District level plans for implementation of WSPs and preparation of District Annual Work Plan (AWP) and Budget. Staff of DPMU will need to be trained formally in various aspects of water budgeting and WSP compilation, lest they will not be able to review and approve GP level WSPs. Convergence is another key area where DPMU is expected to play a key role by roping in funds from other ongoing Central / State Sector schemes. Thus, knowledge of ongoing programs is essential for the DPMU functionaries. • Cable TV would be utilized to create awareness and messages on cable TV will be more detailed, focusing on issues relevant at the GP level. Broad themes for short-films at GP level could be needed for stress on GP level action, learning from successful experiences in other areas, information on Schemes/ Programs through which linkages and convergence can be facilitated, etc. These short films can also be screened at KVKs, CSCs, etc. The messages should be placed at GP office, post office or at similar places for spreading the awareness about the program.	• Established Jal Chaupal's to spread awareness regarding water conservation measures. • Organized Jal par Kavita & Mushaira Sammelan, which was a dedicated Kavi sammelan and mushaira on 'water' to deliver the message of water conservation to a large number of people in an engaging manner	Jal Choupal's were established to provide awareness.
Training Institutions	• Linkages would be established with pioneers of participatory groundwater management (Hiware Bazaar, Pipalantri, MARVI) as well as with the Implementation Support Agencies (ISA) operating under the Jal Jeevan Mission so that local stakeholders form Atal Bhujal Yojana areas can interact with local farmers and field staff to gain insights for implementing participatory groundwater monitoring and management. • The responsibility of training/capacity building at the district level would lie with the District Implementing Partner (DIP). Inputs and experiences gained through the Public Interaction Programs (PIPs) being organised by Regional offices of CGWB as part of the National Aquifer Mapping and Management (NAQUIM) program would play a crucial role in sensitization, training and capacity building of stakeholders at this level.	Does not address it.	
Budgeting	As per revised fund flow guidelines for Central Sector Schemes, the SPMU of the Implementing Agency under Atal Bhujal Yojana are designated as Central Nodal Agency (CNA) under the Central Sector Scheme "Atal Bhujal Yojana (Atal Jal)". Eg: For U.P., "State Program Management Unit, *Namami Gange and Rural Water Supply Department* of Uttar Pradesh" is designated as Central Nodal Agency.	Nodal persons were appointed for scope of work of each event such as Jal Hasya; Jal March; Ken Arti.	

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Financial Management Framework for Gram Panchayats	For the GPs participating in Atal Bhujal Yojana: The SPMUs shall ensure that the following FM framework is implemented/applied to the participating GPs. (a) SPMU will set up a mechanism for effective coordination between DPMUs and the GPs. (b) Before release of scheme funds in the first year, the selected GPs will provide audited accounts of at least the last but one fiscal year and such audit reports must not have 'adverse' comments or 'disclaimers'. The SPMU will ensure compliance to this condition along with other criteria. (c) The GPs receiving Scheme funds will be subject to annual audit following the existing auditing arrangements (local fund audits/AG audits—as applicable). (d) GPs will follow all prevalent operational procedures and/or those amended from time to time by the GoI and/or those applicable in respective states.		
Internal Controls and Internal Audit	At State Level, Delegation of financial powers as prescribed by the State Finance Department shall be followed. Internal controls will include reconciliation of bank accounts in case of the SPMUs and the SPVs. All payments for scheme expenditure will be made through electronic transfers only to the respective bank accounts of the recipients. For petty cash payments, the existing procedures may be followed. The SPVs being societies/companies will follow their own systems defined in the memorandum, byelaws rules and regulations, and the Companies Act. Adequacy and effectiveness of internal controls in relation to the Program will be reviewed by internal/external auditors		
External Statutory Audit	The AFS for the entire Scheme will be audited by the C&AG and the DoWR, RD&GR will be responsible for coordinating the audit. The audit will be completed and AFS along with the audit report will be shared with the World Bank by December 31 each year. The scope of audit will be as per the ToRs issued by the MoF (Department of Economic Affairs) vide their Office Memo F. No. 17/7/2006-FB-II on March 20, 2009, prescribing 'Terms of Reference' to be adopted for all audits conducted by the C&AG.		
Disbursements under PforR by the World Bank	• The World Bank support to the Atal Bhujal Yojana will be through the PforR financing mechanism. Under the PforR approach, disbursements are made upon achievement of verified results which are specified as DLIs in the Scheme. • The DoWR, RD&GR may request advances up to an aggregate amount of 25 percent of the World Bank financing, that is, Rs. 750 crore(equivalent to US$112 million) upon loan effectiveness.		
Fiduciary Manual	DoWR RD&GR had prepared a Program Fiduciary Manual and similar manual reflecting the Program Fiduciary Manual has been prepared by each State nodal agency consistent with Atal Bhujal Yojana Scheme guidelines and the respective state's own rules and regulations GFR. The manual prepared by NPMU and SPMUs shall be made available online and will continue to be adopted/applied for procurements under Atal Bhujal Yojana by the nodal agency's SPMU, DPMUs, in the respective state.		
Monitoring and Evaluation	The M&E system will be developed in consultation with the SPMU teams at the state level and will compile information at GP, block, district, line department, and state levels through the MIS developed for the Program. As one of the advance actions, the NPMU shall develop detailed ToR for developing an M&E system and provide on-site training support for use of the system. Care will be taken to avoid duplication of data collection and feeding into the system. Where M&E systems already exist, the Atal Bhujal Yojana M&E system will be interfaced for integration of data and monitoring. All existing M&E mechanisms, including field equipment and labs, will be used for data collection and feeding into the system.		
Implementation Completion Report	At the end of the scheme, a final evaluation will be conducted. Each participating state shall prepare an ICR and a consolidated ICR will also be prepared by the DoWR, RD&GR to assess its own performance of the scheme which will be incorporated into the ICR prepared by the World Bank after closure of the Program. The ICR for the Program will be completed within three months of project closure.		
Environmental and Social Management	• NPMU/SPMU will ensure periodic and regular environmental monitoring of Atal Bhujal Yojana (including monitoring of hotspot areas) in coordination with SPMUs; and to ensure that comprehensive information on environmental management procedures is available and updated as part of the MIS. • NPMU/SPMUs/DPMUs will ensure, Dedicated, accessible, and responsive Grievance Redressal System.		