

Need for Convergence between different organs of Government for better water management

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Water the life sustaining Resource Base

- Water is most precious life sustaining resource on the planet. Water supply is necessary to sustain human life, agriculture and many industries.
- Its management is a big challenge for India a tropical country with 140 crore population and with a huge variation in the rainfall -100 mm in Western most regions to 11000 mm in Eastern most region. Average annual rainfall varies from 1100 mm to 1300 mm.

Water the life sustaining Resource Base

- Conservation and optimal utilization of water resource is extremely important for economic development. Target Green, Blue and Grey water management.
- The management of hydrological cycle is key to adapt to climate change, and have implications for fresh water supply for drinking water, rain-fed agriculture, ground water supply, forestry, biodiversity, and sea level.

Water the life sustaining Resource Base

- India though has only 4 % of world water resources it is among the top 10 water rich countries with 4000 Billion Cubic Meter of water availability- sufficient for 4 times of population
- Yet 256 Districts of the Country are facing acute water crisis and 70% blocks are water deficient.
- Per capita availability of water is only around 1400 Cum.
- Due to Riparian water rights water management has both national and international dimensions.

Need for Convergence between different organs of Government for better water management

- Climate change and global warming is impacting the water availability and the activities of primary sectors impinge on each other and hence holistic and integrated management of natural resources is absolutely necessary both at the national as well as global level.
- Some of the issues we are facing today are : Floods and draughts, Melting of glaciers and the snowfields in the Himalaya, depletion of forests, Water Logging, contamination and poor recharge of Groundwater, Poor Watershed Management: and Rainwater management, poor sanitation and safe drinking water.

Jal Jeevan Mission and Public Utility Approach

- Jal Jeevan Mission one of the finest intervention of the government in many years in providing safe drinking water a precursor for better healthy life to rural people initiated by the Prime Minister in 2019. Around 3.50 Lakh crore will be spent on this yet another gender sensitive scheme of the Government till 2014.
- Out of 19,36 crore house holds in the country only 3,23,crore (17%) as on 15th August 2019 were having tape water connections.
- Now 7,61,crore (47.22%) House holds (HH) have been provided tape water connections since 2019. By no means a great achievement. So out of 19.36 crore HH 10.85 lakh HH have now tape water.

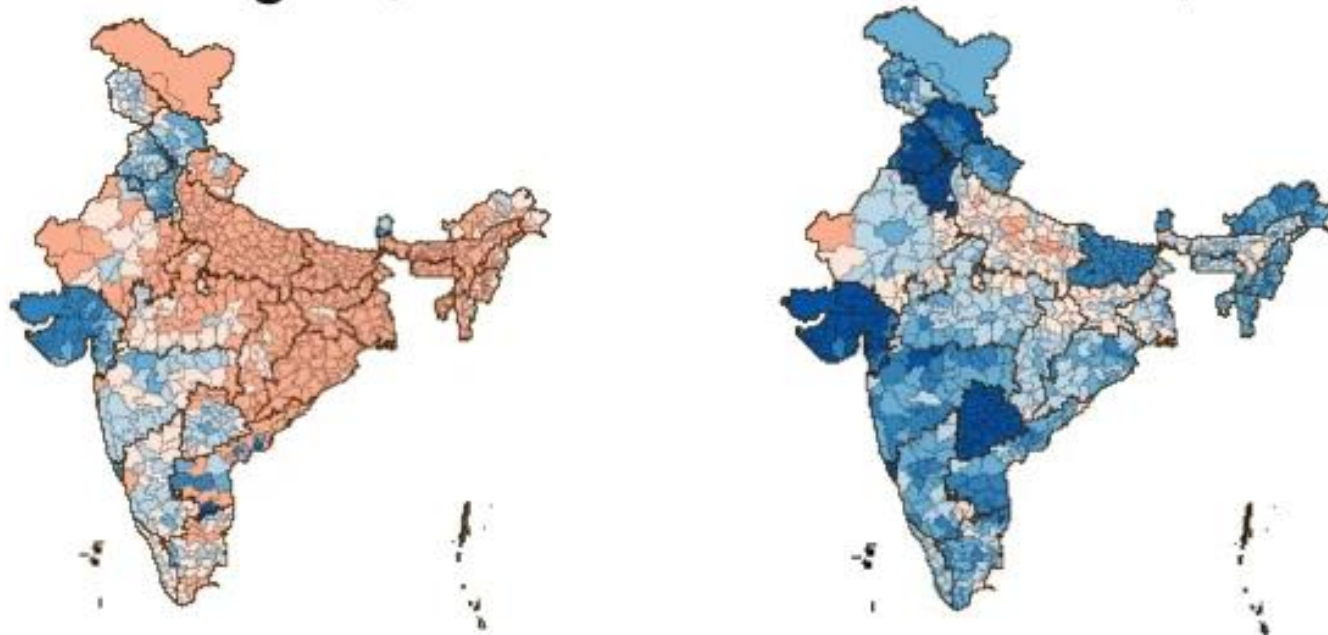


Har Ghar Jal
Jal Jeevan Mission

TAP WATER SUPPLY IN HOUSEHOLDS OF INDIA

On 15th August, 2019

On 13th October, 2022



0%-10% 11%-25% 26%-50% 51-75% 76%-<100% 100%

Percentage of households with tap water supply

Jal Jeevan Mission and Public Utility Approach

- In a study by Nobel laureate Michael Kremer reported that the Jal Jeevan Mission will save from death 1.36 lakh Children and lakhs of people from water born diseases.
- One of the causes of its success was shifting focus from village common water supply point to house hold water supply with full community participation and real time monitoring.
- Women, SHGs, weaker sections and Panchayats and participation and control is key to implement the scheme as it ended their drudgery specially of women for sourcing drinking water.

Jal Jeevan Mission and Public Utility Approach

- There is Emphasis on 'service delivery' & 'functionality' by making the Panchayats and its water sub-committees as Public Utility.
- It is a demand driven community based ownership for long term sustainability.
- Latest technologies being utilized for ensuring transparency, accountability and for the redressal of public grievances.
- Digital Governance, decentralization and partnership

Why need for Convergence and Synergy

- For the long term sustainability of the programme the skill development and capacity building of the partners and all stakeholders specially the Public Utility groups as also of the various government departments is essential.
- After 2024 one of the key areas for action shall be to ensure that the tapes do not run dry like previous hand pumps/ projects.
- One of the threat that needs to be dealt with across many departments and individuals is making Jal Jeevan Mission **Climate Resilient**. Very important.

Why need for Convergence and Synergy

- We need to take lessons from the Integrated Watershed Scheme in which the watersheds had to be treated on 'ridge to valley' concept. However, lack of sequential implementation of the scheme in forest and non-forest lands had resulted in its failure in the past.
- The National Rainfed Area Authority created by the then Prime Minister in 2006 for boosting stagnating agriculture proposed the new watershed guidelines in 2008 for implementation by the Department of Land Resources focusing on convergence and integrated approach in dealing with natural resources management in an holistic manner.
- **Convergence is essential** to get people out of their silos and the paucity of water should not become a limiting factor in development.

Why need for Convergence

- The role of Forest, Panchayat and Minor Irrigation and Public Health Engineering departments is very crucial in achieving convergence for long term success of the Har Ghar Jal scheme. Apart from this Geology, Planning, Agriculture and allied and Revenue departments also need to be converged for ensuring success.
- For long term success preparation of a village/ block and District level Management plan is necessary for maintaining and regulating/ creating the water sources/ springs/ sub-surface water and rain water harvesting and linking it with productivity enhancement of primary sector activities. **Setting Common Goals is a must for success !**

Why need for Convergence and Synergy

- The Jal Jeevan Mission should also be linked to livelihood opportunities by convergence with other schemes specially the Watershed Development, MGNREGA and other scheme like National Livelihood Mission, agriculture, forests and animal husbandry schemes.
- Forest Department should change its afforestation scheme to tailor them for yield of Blue water and support the hydrology down under. The forest and other relevant departments should also undertake soil moisture conservation works including constructions of check dams/ lakes etc . Every drop of rain water is to be used i.e. Infiltrate all Green water in the soil. Run off to be regulated.
- Panchayats and SHGs to act for channelling the Grey water for better use.

A case study on Convergence – How water conservation can promote income and productivity

- NRAA created by the then Prime Minister for integrated and holistic management of natural resources to boost agriculture productivity had implemented the Bundelkhand package.
- Bundelkhand spread over 70,000 square kilometres of land area supporting 22 million people in MP and UP. It is vulnerable, Rainfed and considerably backward compared to other regions. It has hard rock with limited ground water resources
 - 13 districts having 18.5 million population;
 - Total budget was Rs. 11,866 crore;
 - Investment @ Rs. 6,413 per person;

Activities implemented for rainwater management & soil conservation

		Number of Projects / schemes		
Sr. No.	Item	M.P.	U.P.	Total
1	Minor Irrigation Projects	167	71	238
2	Renovation of Existing Structures	4	17569	17573
3	Dug Well Construction	0	7793	7793
4	Deepened Existing Wells	0	6942	6942
5	Recharged well	0	6931	6931
6	Stop Dams / Check Dams	350	900	1250
7	Lift Irrigation Project	0	1	1
8	Barrage	0	1	1

Livelihood support and drinking water activities

Sr.	Item	MP	UP	Total
1	Artificial Insemination centres	110	120	230
2	Murrah Bulls inducted	2403	340	2743
3	Goat Units (10 female +one male)	5296	410	5706
4	Main milk chilling plant	1	1	2
5	Milk Bulk Coolers	10	1	11
6	Dairy Societies	500	500	1000
7	Warehouses special / main markets mini markets / Hat bazaars	135	140	275
8	Storage Capacity (Lakh metric tons)	6.10	1.67	7.7
9	Drinking Water: Hand pumps	0	2800	2800
10	Drinking Water:Pipe system	0	61	61
11	Drinking Water :Tube well based	1,287	0	1,287
12	Degraded forest treated (Lakh Ha)	2.0	0.6	2.6

- Phase 1 DPR of Inter-basin transfer of 1074 MCM water through 2 km tunneling and 119 km long canal of Ken-Betwa River linking project was
- A recommended central university has been set up at Jhansi.

Irrigation Outputs

- **Irrigated area increased by 5 Lakhs HA (4 Lakhs by canals and 1 lakh HA by others).**
- **Per farmer irrigated area increased by 34% by canals and 62% by dug wells .**
- **Cropping intensity improved by 46% in MP and 18% in UP.**
- **There was significant diversification in favour of wheat and vegetables at the cost of pulses.**
- **Wheat productivity increased by 27% in MP and 36% in UP.**
- **Productivity of dug wells irrigation was double of canal irrigation and improved household income by 60%.**
- **Very interesting water markets are evolving.**

***Beryarpur (Kutni) Dam (MP)
Completed in 3 years***



Beryarpur (Kutni) Reservoir (MP)



Lined Main Cannal



***Field Channels all completed
simultaneously***



Singhpur Barrage Reservoir (MP)



Lined Main Cannal



Lift Irrigation, Banda (UP)



Resin DAM Chitrakoot, UP

These projects were completed end to end within 3 to 4 years of first release of funds.

THANA DY. KM. 4.750



Linning of the old canals, repair and renovation of already existing system was also invested to realise higher efficiency of the limited water resources in the Bundelkhand region.



Dug Well 8000 in UP & 50000 in MP



Check Dams



Conveyance Pipes VIII: Sakrarpur (UP)



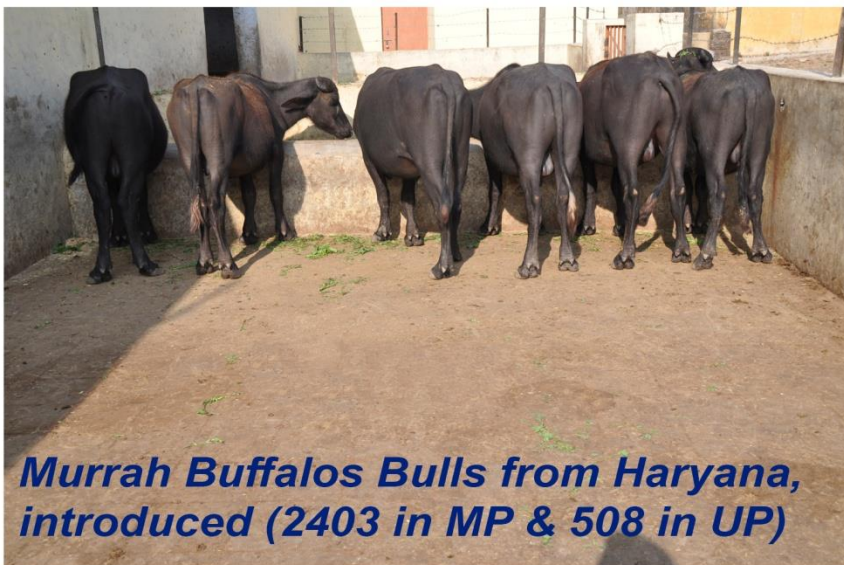
In situ Water Conservation



For drinking water 2725 hand pumps were installed in UP and 12 Cistern Storage projects were completed in MP.

Travel time for fetching water was reduced by 55%.

Water supply was improved from 31 LPCD to 55 LPCD.



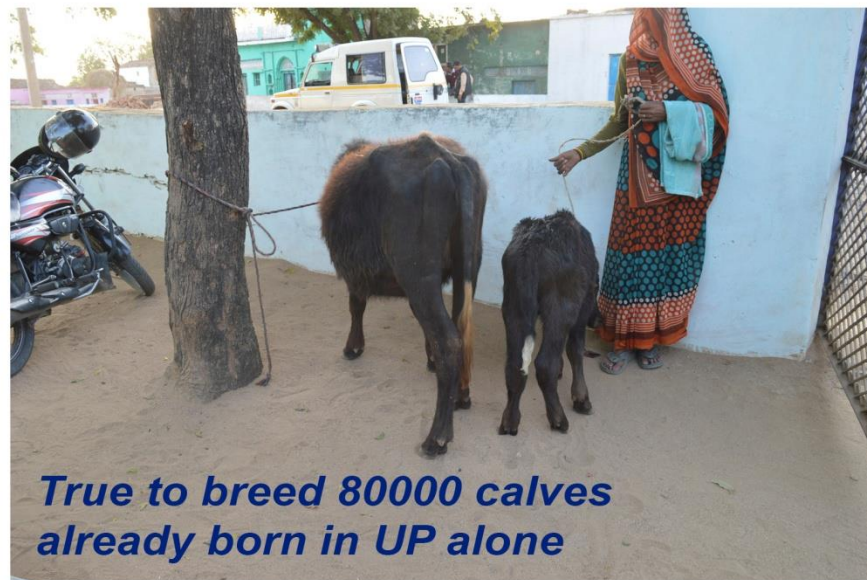
Murrah Buffalo Bulls from Haryana, introduced (2403 in MP & 508 in UP)



120 Artificial Insemination Centres in UP & 100 in MP



HF Calves



True to breed 80000 calves already born in UP alone

Milk Collection in Bundelkhand

1. 520 Milk Co-Operative Societies in MP and 560 in UP were established

2. Loan for purchasing 25-100 animals is in place and interest is being paid by UP Government.

3. There was significant improvement in price realisation and generated additional income of Rs. 8,200/- per family

***District level marketing and
Whare-housing infrastructure in
Bundelkhand region.***



Lalitpur Market located on Highway

***District level markets constructed
on 66 to 100 acres plots***



***Administrative block, farmer's hostel,
bank.***