PRIME MINISTER AWARDS 2020

WATER CONSERVATION - INNOVATION (GEN.)
DISTRICT BANDA, U.P.

PRESENTED BY: DR. HEERA LAL (EX. DM, BANDA)

PMA ID : INNO/00178
Water Crisis Intensifies in Urban as Well as Rural UP

RESEARCH & STUDY

MAJOR CHALLENGES

DEFEATIST MINDSET
INADEQUATE RESOURCES
HIGH RUN-OFF RATE
LOW RECHARGE RATE

INNOVATIVE APPROACH

DIG/RECHARGE WATER SOURCES
UNIQUE PEOPLE ENGAGEMENT

BANDA WATER STRESS
NO WATER IN CAPE TOWN
Steps to Success
- Inter-departmental
- Jal Choupal + Water Budgeting
- Trench digging
- Rejuvenation of old water resources
- Creation of new ponds
- Rain Water Harvesting
- River Ken, Bage & Yamuna Aarti
- Jal March
- Deep Daan
- Tree Plantation & Bedbandi
- Jal Par Kavita & Mushaira
- Jal Hasya Charcha
IMPLEMENTATION

BHOOJAL BADHAO.
PEYJAL BACHAO.

MASS TRENCH DIGGING + JAL CHOUPALS + WATER BUDGETING

- 2605 trenches built around 2443 hand pumps & wells.
- Conducted in all 471 gram panchayats.
- 34732 direct villagers' participation.

3930 k.l. conserving capacity, saving 110001 k.l. water annually.

JAL SE JAN AANDOLAN

START OF CAMPAIGN + TRAINING

WATER HARVESTING
MAY 2019

572 old ponds revived
2233 new ponds created
Medbandi at 1311 locations

10K+ people participated in the march & Oath for 'Water Care' resonated across Banda.
INTERVENTIONS

1. Jal choupals in 471 gram panchayats. 34732 villagers benefited directly; 15 lakh indirectly.
2. 2605 trenches around 2443 hand pumps & wells.
3. 572 old ponds revived; 2233 new ponds created.
4. 82 rain water conservation structures built.
5. 1536 recharge pits in schools; Medbandi at 1311 locations.
6. Mass awareness program in 130 villages targeting 6,50,000 villagers located on the banks of rivers Ken, Yamuna & Bage.

IMPACT

GROUND WATER LEVEL INCREASE
Badokhar --> +1.88 m
Mahua      --> -0.22 m
Kamasin    --> +1.67 m
Vissadda   --> -1.30 m
Jaspura    --> +2.69 m
Tindvaari  --> +2.01 m
Nairaini   --> +1.92 m
Baberu     --> +2.12 m

*Data from Minor Irrigation Department.

HIGHLIGHT RESULT

<table>
<thead>
<tr>
<th>Block Name</th>
<th>2017 Pre Monsoon (in metres)</th>
<th>2018 Post Monsoon (in metres)</th>
<th>Difference (in metres)</th>
<th>2019 Pre Monsoon (in metres)</th>
<th>2018 Post Monsoon (in metres)</th>
<th>Difference (in metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jaspura</td>
<td>19.21</td>
<td>19.31</td>
<td>-0.1</td>
<td>20.08</td>
<td>20.48</td>
<td>-0.4</td>
</tr>
<tr>
<td>Tindwari</td>
<td>16.48</td>
<td>17.04</td>
<td>-0.56</td>
<td>17.54</td>
<td>17.82</td>
<td>-0.28</td>
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</tbody>
</table>

It is assumed and expected that after rainy season, ground water level will increase rather than decrease. Ironically, in two blocks Jaspura & Tindwari water level fell-down consecutively in 2017 and 2018 (post monsoon ground-water level decreased as compared to pre-monsoon level). But, our efforts reversed the trend and brought amazing results in 2019. In 2019, we saw a quantum-increase by 3.1m in Jaspura and 2.43m in Tindwari respectively, because we increased recharge potential in our water conservation initiative. This reversal from negative to positive surpassed people’s assumptions and expectations.
<table>
<thead>
<tr>
<th>Crop</th>
<th>2018</th>
<th>2019 - Increase (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHAAN</td>
<td></td>
<td>24.7</td>
</tr>
<tr>
<td>JOWAR</td>
<td></td>
<td>33.76</td>
</tr>
<tr>
<td>BAJRA</td>
<td></td>
<td>80.89</td>
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<tr>
<td>MAKKA</td>
<td></td>
<td>20.95</td>
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<tr>
<td>MOONG</td>
<td></td>
<td>3.46</td>
</tr>
<tr>
<td>URAD</td>
<td></td>
<td>24.95</td>
</tr>
<tr>
<td>TIL</td>
<td></td>
<td>62.50</td>
</tr>
<tr>
<td>ARHAR</td>
<td></td>
<td>4.62</td>
</tr>
</tbody>
</table>

**Net average increase in Kharif crop productivity is 18.48% (w.r.t 2018)**
VILLAGE GHARODA, TEHSIL ATTARA

- Water table increased by 2.5m.
- Dhaan plantation increased from 150 bheegha to 1300 beegha.
- Gehun plantation increased from 400-500 beegha to 1400 beegha.
- Mass reverse-migration due to better agricultural prospects; boosts local economy.
- Sowing of multiple crops a year now possible.
- Vegetable & fruits farming now possible due to increased water level.

GOVT. SCHOOLS OF BANDA

- 1536 rain-water harvesting structures built in all government schools.
- Idea to build responsible citizens of tomorrow.
- Approaching students had multiplier effect as the message reached the entire family and the whole neighborhood.

VILLAGE MAHUE, TEHSIL BANDA

- No drying up of ground water and ponds.
- Drinking water crisis reduced manifold.
- Approx. 20ft water level has increased in reported areas.
- Increase in agricultural activities and corresponding produce.
- Black deers had deserted the block due to lack of drinking water. They have now started visiting again due to abundance of water.
- Overall lifestyle has improved and mindset has shifted towards more scientific management of water.
AWARDS & RECOGNITION

22 CRORE ADDITIONAL FUND SANCTIONED BY MINOR IRRIGATION DEPT.

PHYSICALLY AUDITED & ENCOURAGED BY:

Sh. U P Singh - Sec. Jal Shakti Ministry, GoI
Sh. Mahendra Modi (Consultant to GoUP - Urban Development) Known as 'Jal Guru'
Sh. L Venkateshwarlu - Then CEO, U.P
Sh. S R Bhoosreddy - Addl. Ch. Sec. GoUP
SKOCH (Leading think-tank on socio-economic issues & inclusive growth)
INNOVATIONS

MESSAGING
Reconnecting with natural water bodies - a fresh approach.

PROJECT DESIGN
The project was designed in a community-collaboration format.

LOW-OR-NO-COST MODEL
Implementation encouraged 'Shram-Daan' and resource pooling.

WATER BUDGETING
First time in U.P., concept of Water Budgeting was introduced.

ACCOUNTABILITY
Our approach was to make people responsible & accountable for reducing water crisis.

PEOPLE ENGAGEMENT
Mass participation through innovative people engagement.
MINDSET
Bridging the people-administration gap.

RESOURCES
Strategic pooling of resources in a channelised manner.

BASIC KNOWLEDGE
Revisiting childhood life experiences to explore optimum solutions.

APPROACH
Don’t limit your challenges. Challenge your limits.

MULTIPLE ROLES
Officially I was the DM. Unofficially, I played multiple roles.

HIERARCHY DIVIDE
Valuing ideas & hard work. Not designations.

THE HUMAN TOUCH
This was not an administrative campaign. It was a people’s movement.

DIFFERENTIATORS: We developed both - Software (Water Governance) & Hardware (Water Management) of water bodies.
हीरा लाल
निवर्तमान जिलाधिकारी, बांदा