Providing Safe Water
Fluorosis Mitigation Program

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Fluoride contaminated groundwater adversely affects the health as well livelihoods of millions of Indians today.

230 districts across India are suffering from a fluorosis endemic.

60 million+ suffer from dental and skeletal fluorosis.

This scourge will continue to spread...
Available techniques

- Bone Charcoal
- Electrolytic Defluoridation
- Activated Alumina
- Reverse Osmosis

Our Initial Approach

2005 - 2008

- Activated Alumina Kit
- Fluoride Mitigation Plans
  (41 villages across five states)

Challenges

- Operation and Maintenance
- Accessibility
- Acceptance
- Affordability
- Sludge generation and disposal

Several challenges with techniques existing today
Community-based Integrated Water Resources Management

Sustainable and equitable solution implemented in **17 villages** (1,348 HHs) of Dhar district, MP during 2013-18 for safe water with support of Frank Water @ ₹9700/HH ~Rs. 1,500/capita)

- Surveys for Situation Analysis
- Collection of Scientific Evidence
- Approaches for Community Mobilisation
- Development of Village Level Institutions
- Agreements and Documents
- Implementation through Institutions
Significant improvements seen on-ground

"My life is almost over but at least there is some hope for my children and grandson. They will be able to use safe water and lead a healthier life."

- Bandu Singh, Kalapani, Manawar block of Dhar district

Health improvements: Reduction in human urinary fluoride

Noticeable straightening of legs after consuming fluoride safe water for 18 months

Name: Santosh
Age: 8 years (2014)
Village: Kalapani

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<tr>
<th>Beneficiaries</th>
<th>Before Implementation</th>
<th>After Implementation</th>
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<tbody>
<tr>
<td>Name: Santosh</td>
<td>Age: 8 years (2014)</td>
<td>Village: Kalapani</td>
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<tr>
<td>Urinary Fluoride in mg/l</td>
<td></td>
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<tr>
<td>0</td>
<td>1</td>
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Major Achievements

- Community-managed drinking water supply systems
- Sharing of water sources within village and trans-boundary
- Increased accessibility to safe drinking water
- Groundwater recharge
- Increased WASH awareness
- Convergence with MGNREGS
Way forward for scaling up

Integrated approach of safe drinking water supply, WASH and groundwater recharge along with defluoridation techniques needs to be adopted at a cluster level with following components:

- Nutritional interventions
- Rooftop rainwater harvesting
- Capacity building of stakeholders
- Local water governance
- Convergence with govt. programs

Adoption of this approach will help reach out 70-80% of fluoride affected areas.

Manpower, training & implementation costs (@ Rs. 10 lakhs/village ~ Rs. 12K/household) required
To know more, you can contact us!

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