



2017-18

# INREM Foundation Annual Report



INREM Foundation  
Anand, Gujarat



**Above Photo:** A village meeting to discuss Water contamination issues

**Cover Photo:** Testing water in a hand pump in Jhabua, Madhya Pradesh

## PREFACE

I introduce this annual report of INREM proudly, with a growing organization on ground and recognition of its work within India and externally. As the same time, what also bewilders me is the mission in front of us, which only seems to be growing every year. The crisis of public health due to water contamination is facing us starkly as a huge disaster globally and INREM is one of the organizations which is helping to show glimmers of hope. At a time when Water crisis is getting reported widely and the impact on people is being appreciated, INREM is coming out as an organization which is at the centre of positive change. We talk about the problems, but we also try and show directions to solve them, on the way catalyzing Everyday Heroes who become change agents. That has always been our strength and it continues to remain that way.

Some highlights from this year 2017-18 follow:

- INREM is now leading one of our biggest ever programmes, being supported by the European Union (EU) to act on fluoride and arsenic problems in 6 states of India. This is a major recognition for our work and it gives as a solid foundation to build upon
- Our longstanding work from Jhabua (MP) on saving malnourished and crippled children with Safe drinking water and nutrition is now getting wider visibility with the UNICEF publishing a chapter within the publication "Forest Lanterns"
- A new emerging partnership called SAFEbillion with Sattva media and Piramala Sarvajal is helping INREM address the technology needs of water quality problems
- More children are recovering in Jhabua every year and we continue our long journey there

We wish you enjoy reading this annual report and be with us together in this exciting journey!

April 1, 2018

Sunderrajan Krishnan

Executive Director , INREM, Anand

## Contents

	Page no
Preface	3
Healing children and women with Safe water	6
Ripples from our network	8
Publications and Information products	9
Assignments and Partnerships	13
The People Behind the Screen	15
Priorities for the coming year	17
Nuts and Bolts of the Finances	18
Supporting INREM	19
About INREM	21





## Healing children and women with Safe drinking water



Our stories of hope of children healing from crippling Fluorosis continue with Vanti from Jhabua being one of the latest such cases. When we first met her, she was unable to walk and gradually, with Safe drinking water and nutrition, Vanti is now able to carry on daily activities. She and others like her give us more hope for the future.



The Jivan Physiotherapy centre in Thandla, Jhabua

On World Water Day, March 22, 2017, we initiated the Jivan Yoga and Physiotherapy centre in Thandla of Jhabua for the benefit of fluorosis affected children. The space was donated by the local media office and the equipment was donated from individual donors. This space is already becoming another way for children and woman from nearby villages to come together and find a way of healing from fluorosis.

## **Ripples from our Network**

In this year, we held a series of regional meetings to discuss among members of the Fluoride Knowledge and Action Network, an initiative of INREM which brings together people across the country on fluoride issues in drinking water. These Ideation meetings happened in Bangalore, Hyderabad, New Delhi and Nalbari during November 2017. The consequence of these meetings was the consensus of having a common Water quality network on these issues across India. The culmination was in the form of the Annual meet held in New Delhi during March 15-16 at the Constitution Club. This meeting also has a group of 19 Members of Parliament (MP) discussing with us on Water quality of concern to them. Following this, we had a two day discussion about the Water quality network and new information technology platforms that can help solve these problems at scale.

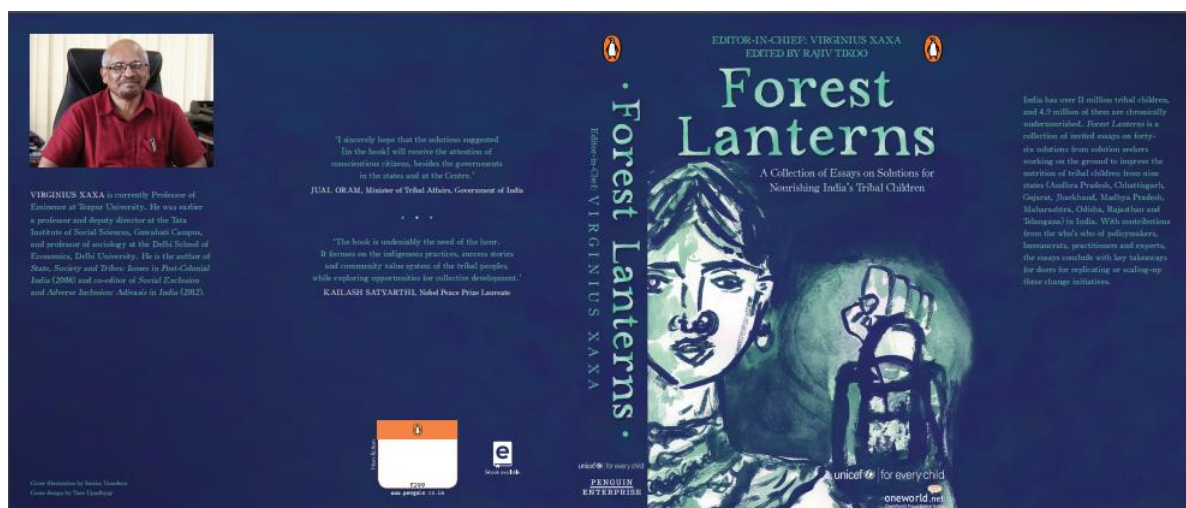
The pinnacle of our year was the acceptance of INREM's proposal jointly submitted with SaciWATERS to the European Union (EU) for working on fluoride and arsenic issues across India. This four year grant support worth 1 Million Euros helps to consolidate the network on ground and take action to the district level in 8 districts across 6 states. The final objective of this programme is also to present a working model to the country, on mitigating fluoride and arsenic issues, that could then be replicated across the country.



## Our Knowledge and Information Products

Our continued work on knowledge and information products in Water had led to different directions in this year.

The UNICEF published a chapter about our work in Jhabua under the title 'Treating fluoride toxicity', in the book called 'Forest lanterns'. This book focused on efforts in tribal regions of India where commendable work has been done on improving the condition of malnourished children. Our work on healing such children who are doubly affected with fluorosis and malnourishment is one of its kind and we are glad to see this recognition coming for us.



Forest lanterns book published by UNICEF with a chapter on INREM's Jhabua work



## Groundwater Quality in India Distribution, Social Burden and Mitigation Experiences

Sunderrajan Krishnan<sup>1</sup>, Rajnarayan Indu<sup>2</sup>

### Abstract

A variety of quality issues affect groundwater in India. The reasons for these quality problems are rooted to groundwater exploitation, external contamination from point/non-point sources and natural geogenic processes. Biological and chemical contamination of water account for a massive disease burden on society leading to child mortality, labor loss due to recurring disease, chronic ailments, etc. The impact of some of these problems is exacerbated due to current hygiene, malnutrition and poverty status of the people.

The key problems can be pointed out as – biological contamination, fluoride, salinity, nitrate and iron problems, and industrial contamination. Apart from these, other quality problems such as strontium, heavy elements, etc., also exist and interact with these wider-spread problems. One of the main challenges we face is the lack of good and vast geological understanding of the distribution of these contaminants. Since the current network of quality measurements is highly insufficient, numerous civil society initiatives have emerged attempting to involve community in monitoring water quality. Some understanding has emerged out of this, but the quality of these measurements and kits are sometimes in question.

The social burden of some of these quality problems has been documented by research studies. Problems such as fluorosis impose a massive social cost which can be a significant part of the income. On an already malnourished population, fluorosis and arsenicosis add to health complication leading to severity which otherwise would not be observed in healthy individuals. The loss to agricultural productivity from water quality problems arises especially in salinity affected areas. In iron-affected areas, pipes and wells can be affected. Kidney stone, a root cause of which is poor hydration, is also a major health burden.

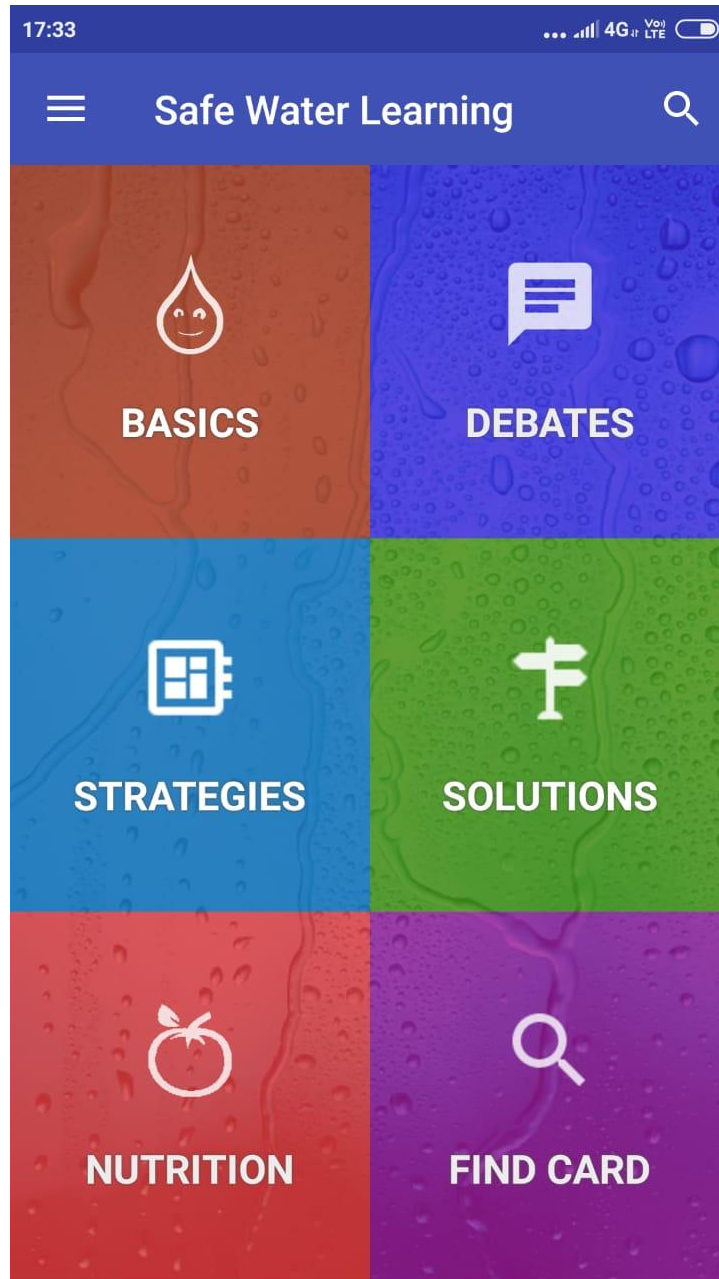
Mitigation measures are possible for each of these quality problems. In many cases, however, there is interaction between quality problems such as those with iron-arsenic-fluoride (Assam), salinity-fluoride (Saurashtra, Gujarat) and say, biological-arsenic (WB). Therefore, we need a region-specific typological approach that considers the particular characteristic problem of the area. There are good successful cases for several of these mitigation issues – watershed-based measures along the coast for salinity in Saurashtra, RO plants in affluent areas across the country, rain water harvesting for assuring safe drinking water, referral hospitals for particular problems such as fluorosis, low cost filters for fluoride, arsenic, etc.

As a good response to all these problems, what we need is integration of efforts – across different disciplines such as geology, health, technology and management; across different departments such as public health, water supply, education, rural development; across tiers of the government and Panchayati Raj institutions (PRIs), across public and private institutions. Water quality management needs to enter

Paper published by us in Epidemiology International

Our invited review paper on ‘Groundwater quality in India’ was published in Epidemiology International in their March 13, 2018 issues. This was following an invitation by Govt of India to a workshop on public health issues held in Pune during September 2017. The publication of this paper now helps us communicate about these issues to a wider audience , especially those comprising of public health professionals.

Our system of Safe water learning cards has now expanded into 10 languages and an Andriod application called Safe water learning has now been released. This now helps the cards to be available to anyone with a phone, as well as to be able to operate in multiple Indian languages. Further, we plan to extend these cards to multiple water issues over the coming year.



Safe water learning Android application released by INREM

Our knowledge building in the online domain also got a thrust with the release of a “Learn” page of the fluoride network. This Learn page brings in thousands of research material, case studies, films and a body of rich knowledge that helps right from basic understanding to problem solution. Already the page is getting wide visibility and is becoming an excellent resource for online learning on the issue.

## Online LIVE

FLUORIDE KNOWLEDGE & ACTION NETWORK

HOME LEARN **LIVE** ABOUT JOIN BLOG CONTACT

See what's happening live!

Select your state

maps... reports... news...

**Live reports**

Is Fluorosis on the wane in Nalgonda. We have to ask ourselves this question

Commitment and camaraderie not in the dress but in heart.

The District Fluoride Monitoring Centre are nominated for SCOH Awards for governance

Nalgonda Collector Gaurav Uppal Talk about Fluoride Awareness Programme

TELANGANA

TELANGANA

TELANGANA

TELANGANA

An online platform “LIVE” released by the FKAN

## **Assignments and Partnerships**

A fresh three year partnership was formed with the Aga Khan Development Network (AKDN) on Water contamination issues linked with Sanitation programmes. This research is linked with AKDN's work on ground in northern part of Bihar in eastern India. This research has now completed the first six months of field work and a first report has been prepared from this on ground study. We expect this partnership to continue for the next 2 years with the AKDN.

Our partnership with the Water Aid in Uttar Pradesh (UP) for the Jal Choupal initiative concluded in December 2017. With this partnership, INREM contributed as a knowledge resource agency taking part to produce knowledge products and conducting training on ground for the purpose of Water security planning. This project covering three countries has gone a long way to showing how water can be managed through local discussions and working closely with communities.







## The People Behind the Screen

We have a remarkable group of Governing Board members for INREM composed of highly recognized social workers, researchers, academics and public health professionals. They guide the organization team and help govern and promote the organization.

Dr Katar Singh, Chairman	Dr Tushaar Shah, Vice- Chairman (IWMI)	Mr Harnath Jagawat (Sadguru Foundation)	Prof Rakesh Saxena, IRMA
Prof R S Pundir, Anand Agricultural Univeristy	Dr S Kalamkar, Agro economic Research Institute	Dr Parthasarathy Ganguly, Indian Institute of Public Health	Dr Sunderrajan Krishnan, Executive Director, INREM

## Team

Dr Sunderrajan Krishnan, Executive Director

Dr Rajnarayan Indu, Director

Mr Vikas Ratanjee, Policy Advocacy and Communications

Mr Sachin Vani, Ms Kalpana Bilwal – Jhabua team

Mr A B Paul is our regional director of Assam state

Mr Harsh Dave, our Documentation and Reporting officer

Mr Pritesh Patel and Mr Manhar Upadhyay – Admin and Accounts Team

Mr Arvind Singh leading our Dungarpur team

Mr Shreyas S leading our Chikballapur team with Manjunatha and Manjulamma

Mr Ghanshyam Sheet leading our efforts in Balasore

Our Community Resource Persons in Jhabua are our asset, prime among them , Mr Jitendra Pal.

### **Highlight**

#### **Ms Kalpana Bilwal**

We are glad to highlight Ms Kalpana Bilwal as a changemaker from INREM. Kalpana comes from a village called Kalapan of Jhabua district in Madhya Pradesh. She started working with INREM in 2010-11 as a young field officer interacting with village communities. Over the years, she has become the backbone of the organization with respect to healing children affected with disabilities.

Kalpana's growth over the last 8 years gives us hope that INREM can act as a body for young women and men who can steer their careers in meaningful directions, very valuable to society.

We wish her all the success and hope that we are able to produce more such Kalpanas across India !

## **Priorities for the Coming Year**

In the coming year 2018-19, we plan to focus on the following aspects of the organization and beyond:

1. To strengthen our team building efforts across the country since we have several new faces within the organization. So it will become essential for everyone to imbibe common values and align towards the central mission
2. Bring in more of information technology and related tools to streamline activities of the organization in all aspects of work
3. Initiate steps towards corpus development for the organization and governance of that fund
4. Develop more formal partnerships of the organizations with the government in all levels of systems across the country
5. Expand our work into other Water quality problems and have a framework for this direction

## Nuts and Bolts of the Finances

In the year 2017-18, we received a total of INR 2.29 crores (INR 22.9 Million) from grant sources and INR 10.88 Lakhs (INR 1.088 Million) in consultancies. In the coming year, we plan to expand both on Donations and Consultancies, to have a more balanced fund dependency for the organization.

Source of Funds	Opening balance	Received during the year	Total funds in the Year	Expenditure during the year	Closing Balance
European Union	0	18693286	18693286	716170	17977116
Donation Fund	124273	0	124273	57824	66449
Fluoride Knowledge and Action Network (Arghyam)	1206778.88	2592840	3799618.88	2548964	1250654.88
SWaCHA centre in Assam (Arghyam)	1319644	42746	1362390	1308723	53667
Fluorosis in Nalgonda (State of Telangana)	23623	555307	578930	528184	50746
The Nalgonda Collaborative (Arghyam)	572033	14108	586141	584638	1503
Grant Fund - Nudge Foundation	0	1000000	1000000	489876	510124
Fluorosis Mitigation in Jhabua (Tata Trusts)	1552503	47099	1599602	1502235	97367
Neeranchal Groundwater Programme (UNDP)	3286.9	0	3286.9	3286.9	0
People's Contribution Fund	46430	0	46430	0	46430
AKDN	0	450000	450000	184632	265368
Sadguru Foundation	0	588000	588000	68371	519629
ACWADAM	0	50000	50000		50000
<b>Grand Total</b>	<b>4848571.78</b>	<b>24033386</b>	<b>28881957.78</b>	<b>7992903.9</b>	<b>20889053.9</b>

## **Supporting INREM**

There are many ways in which you can make a difference. Resources are needed for different types of activities, and we list some of these here.

### **1. Community support**

INREM works on community programmes that are of direct benefit to people across rural India.

You support can help communities get better access to Safe drinking water, get better resistance to water borne diseases with better nutrition, and coping mechanisms for mitigating the risk of these problems.

You can also support in building the strength of local institutions such as schools, Panchayats, women nutrition centres, and help build their capacity to cope with the problems that we work on.

### **2. Organizational Support**

Endowment / Corpus Fund: INREM is embarking on developing an endowment/corpus fund for long term needs of the organization. This would go a long way towards fulfilling our dream of becoming a Water and Health Institute (WAHI) and becoming an organization that serves this much needed gap. This year, we would like to make a beginning in this regard and seek your support for this endeavour.

### **3. Infrastructure**

Laboratory: Our increasing work is requiring the need for an in-house laboratory that will help us to test water and other samples for a basic set of parameters. Especially, when validating technologies, we feel the need to have such a facility available ready-hand. With a facility of a laboratory, we would also be able to serve the growing needs for testing and thereby be able to sustain it.

Space: Quite importantly, for future needs, we are in need for ample space and a separate campus. This is a long term need and one that is much required for the organization. Our dream is to build a small but effective energy, water and environmentally sustainable campus that helps the organization serve its vision.

INREM Foundation thrives with all your continued guidance and help. We hope these will continue and together we weave a common dream !



INREM and its Network getting together in Hyderabad during November, 2017



### **About INREM Foundation**

INREM Foundation is a not for profit, research and social work organization established in 1994, working on issues concerning environment and natural resources. It has a specialty in dealing with problems concerning issues of poor water quality and their effects on human health. INREM works from Anand in Gujarat, has another office in Madhya Pradesh and associates in Assam, Telangana, Odisha and Karnataka. It promotes the body known as the Fluoride Knowledge and Action Network, that brings together people across India working on the water quality issue of high Fluoride in water.

One primary focus of INREM is within the area of Water quality management, and especially devoted to the linkages with public health issues. In this area, INREM's goals are:

- a) To carry out community based research on Water quality and health issues, that bring out positive measurable outcomes and establish standard mitigation procedures, which can then be replicated
- b) To educate and communicate stakeholders such as Government bodies, Non-profits, research organizations and others, on issues of Water quality and health, for creating a wider discourse on these issues
- c) Design and support large scale interventions in the area of Water quality and health, in partnership with government programmes, social enterprises and others, based on tested models from the ground

### **Contact**

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