It is a great pleasure to present you with this Annual Report of WASH Institute 2015-16. This year has been a very special for WASH Institute, as it opened a sea of opportunities, and the Institute was recognised for its service to the Water, Sanitation and Hygiene Sector across the Country. WASH Institute already has the privilege of being the ‘National Key Resource Center’ of Ministry of Drinking Water and Sanitation, and this year WASH Institute was engaged to provide Technical Assistance to Ministry of Urban Development for effective implementation of Swacch Bharat Mission by August, 2015. The project is being co-funded by BMGF and USAID.

WASH Institute began its services as a training and capacity building organization, to provide skilled manpower to WATSAN sector, and has diversified its activities in recent years based on demand from different stakeholders. During this year, the WASH Institute offered technical assistance and trainings to various stakeholders, ventured into research on faecal sludge management, as well as continuing to offer its regular informal and formal training services.

Technical assistance is provided for improving the capacity of state and central government stakeholders for effective implementation of Urban Sanitation, evolving an effective communication strategy and creating a proper monitoring system for SBM (urban). The faecal sludge management research carried out by WASH Institute is unique, aiming at Onsite disposal of fecal sludge which will provide a permanent solution in long run to manage the large volume of faecal sludge produced locally, the details of which are presented in this report.

WASH Institute has established a Sanitation Park and a Modular toilet production center at Reddiarchattiram, Dindigul, this year which was well appreciated by trainees and visitors to the center. This year through its regular capacity building training programs, WASH Institute was able to reach around 6,000 people directly and 1,80,000 indirectly.

WASH Institute takes this opportunity to thank BMGF, USAID, Plan India, Water For People, PSI, IRC and other stakeholders for their support, guidance and patronage which remained crucial for our endeavour to provide solutions to the Water, Sanitation and hygiene problems faced by Indian communities. WASH Institute hopes that in near future India will transform its image and be seen as a Clean and Green country, meeting the sustainable developmental goal to ‘Ensure availability and sustainable management of water and sanitation for all’.

Governing Council
WASH Institute
Introducción

WASHi ha diversificado sus actividades desde el comienzo y ahora está activamente implicado en la provisión de servicios de asesoría técnica, investigación y advocacy y también en la implementación de programas a nivel de base, así como en el desarrollo de capacidades y entrenamiento.

The Water, Sanitation and Hygiene Institute (WASHi) was established in 2008 and is a non-profit training and development organization dedicated to strengthening the capacity, skills and knowledge among the stakeholders involved in the water and sanitation sector across India, by providing practical solutions to a wide range of issues in water, sanitation and hygiene by engaging experts in relevant fields. The Institute’s mandate is to train and groom professionals and other functionaries engaged in the sector.

WASHi has also established itself as an academic center by offering two job oriented courses: A Post Graduate Diploma course on Environmental Sanitation Science (Sanitary Inspector’s Course); and a Certificate course for Health workers. The courses are affiliated to Madurai Kamaraj University, Tamil Nadu. These courses help to create trained human resource capacity in the Sanitation and Health sector, which is largely inadequate across South Asia.

The Institute has been widely recognized by various Government departments, INGOs and NGOs as a National Level Key Resource Centre approved by Ministry of Drinking Water and Sanitation, GoI and as an Academic Institution. The Institute provides technical assistance to Ministry of Urban Development, GoI for effective implementation of SBM (Urban) project with fund support from USAID and Bill Melinda Gates Foundation.

WASH Institute Thrust areas

Technical Assistance
Capacity Building and Training Services
Academic course
Research and Advocacy
Grass roots Programme Implementation

The boundaries shown on this map do not imply official endorsement or acceptance.
Activities during the year

Technical Assistance to Governments and Corporates

Technical Assistance to MoUD for SBM (U)

Wash Institute provides Technical Assistance to the Ministry of Urban Development, Government of India, to facilitate the implementation of the Swachh Bharat Mission (Urban). Assistance includes capacity building support in program management, information, Education and Communication (IEC), M&E, sanitation technology evaluation, behavioural change to enable various national, state & city agencies to implement Swachh Bharat Mission initiatives and ensure long-term the sustainability of sanitation solutions & services. The project is co-funded by the Bill & Melinda Gates Foundation and United States Agency for International Development (USAID).

Some of the major activities completed this project during the year are:

- City Ranking Survey in 73 selected cities was completed and published as a report
- Establishment of CSUs in six cities
- Ganga avahan- a swimming event in Ganga, Varanasi
- 1 lakh hand program to involve school children
- The development of toilet locator app.

Hydrogeological Survey for RAMCO Cements

WASH Institute was engaged by RAMCO Cements, Tamil Nadu to conduct a detailed Hydrogeological Study in their Alathiyur factory and mines area and also surrounding villages to know the ground water potential in the area, water levels in bore wells, suitability of water for drinking and for plant use, evolving an effective strategy for proper utilization of ground water, including recycle and recharge of ground water through appropriate rain water harvesting measures, plans for judicial usage of water by the resident colony inside the factory premises, water quality analysis etc., Vertical electrical sounding to identify potential ground water and pumping tests to measure to yield of bore wells were also carried out as part of the study and the report was submitted to RAMCO.

Training and Capacity Building Programs

WASH Institute organized a series of training programs this year with the support of the Ministry of Drinking Water and Sanitation (MDWS), Plan India, Water For People, PSI and other organizations/stakeholders. Around 6,000 people were trained directly on our ToT training programs, and 1,80,000 people indirectly benefited.

The training on Water Security Plans and PRA tools helped the Government Engineers and officials in Lucknow, Uttar Pradesh to gain first-hand knowledge of PRA through field visits and enriched their knowledge on how to develop a water security plan. The training on Water Quality Monitoring and Management focused on basic parameters to be ensured for safe drinking water and for effluent discharge, the different options of treatments available, recycling of waste water and practical training on water testing in fields which enriched the knowledge of the participants from Ranchi, Jharkhand. Training on strategies to achieve ODF status was given to Plan India staff and focused on the practical aspects of involving the community in the process. The staff said that the trainings will help them to improve their performance in field. The School WASH Module Development Workshop enabled the staff of Water For People staff to develop a module based on local context of Sheohar.

Overall feedback of participants on our training programmes

Excellent 21
Good 33
Average 21
Poor 0
Our trainings to Masons under the 3SI project facilitated construction of quality toilets by Population Services International. Supportive supervision was also provided during April-May 2016 to ensure the quality of toilets constructed. The trainings on Modular toilets to Master Masons helped to disseminate the technology of Ferro-cement toilets, which has the possibility of being replicated throughout the country, owing to its simplicity, cost effectiveness and durability. The orientation training on modular toilet technology to DRDA/PudhuVazhvu staff/SHG members in Dindigul District was well received and created demand for such toilets.

Pretests and Posttests were conducted and feedback from participants was obtained during each training, which revealed that most of the trainees appreciated the quality of trainings and the skill of the resource persons who were engaged for the trainings.

Field Visit to Vattavada during School WASH Module Training, Munnar, Kerala

Exposure visit organized for Water for People to Community Managed Sanitation system, Trichy

Water quality Monitoring Training, Ranchi, Jharkhand

Mason training at Patna under PSI-supported project, Bihar

Training programs organized during the year- at a glance

Jharkhand

- Capacity Building Training to Plan India/ Plan PU Staff on Sanitation Strategies to Achieve ODF Status (Batch III)
- MDWS Supported Training on Water Quality Monitoring and Management
- Training on Water Quality Monitoring and Triggering Approach to WV staff
- Training program for the staff of Water for People-Training on Integrated WASH to WFP New Recruits

Bihar

- Capacity Building Training to Plan India/ Plan PU Staff on Sanitation Strategies to Achieve ODF Status (Batch IV)
- Skill building training to 254 master masons on construction of sanitary toilets in association with SWSM Bihar and GSF
- Training on Solid and Liquid Waste Management to Annap Trust, Sheohar, Bihar
- WFP One day training for Teachers on School Water Sanitation and Hygiene-4 Batches
- WFP- Training on Integrated WASH for Water For People Staff and Partner Organizations
- PSI-3SI Project-Mason Training to 4199 Master Masons on construction of Sanitary Latrines
- WFP- Training to Masons on Modular Toilet Technology

Tamilnadu & Kerala

- One day training Cost effective Modular Toilet Construction to SHG members/PRIDRDA and PudhuVazhvu Officials
- National Seminar on ‘Bridging the Knowledge gap in Sustainable Community based solutions in WASH’
- WFP- Exposure visit to Community Sanitation Management System
- WFP Workshop for Development of module on School WASH
- WFP- Team Building and Communication Training for WFP all staff

Uttar Pradesh

- MDWS Supported Training on Community based Water Security Plan and PRA tools

Madhya Pradesh

- Training on School WASH and Sanitation for ITC, Bhopal

Rajasthan

- MDWS supported Training on Water Quality Monitoring and Management

West Bengal

- WFP- Training on Integrated WASH for Water For People Staff and Partner Organizations

Delhi

- Training program for the staff of Water for People-Training on Integrated WASH to WFP New Recruits

Participants:

- Jharkhand: 88 Participants
- Bihar: 5233 Participants
- Tamilnadu & Kerala: 476 Participants
- Uttar Pradesh: 31 Participants
- Madhya Pradesh: 46 Participants
- Rajasthan: 30 Participants
- West Bengal: 34 Participants
- Delhi: 30 Participants
WASH is the only organization in India offering Formal and Non-formal courses in Water, Sanitation, Health and Hygiene sector throughout the year. In order to facilitate the development of skilled professionals in WASH sector with a community perspective to address the growing need of trained human resources, two formal courses are conducted by WASH Institute in affiliation with Madurai Kamaraj University Government of Tamil Nadu:

1. PG. Diploma in Environmental Sanitation Science and
2. Certificate course on capacity building for Health Workers.

So far 5 batches of students passed out successfully with 100% result. The past students have been well placed in Government of India Departments, State Government Urban Local Bodies, Corporates and Leading Private Sectors.

Course modules have been designed in collaboration with expert individuals and organizations in the sector from around the world. All courses combine theory with real life experience, using teaching methods including classroom sessions and interactive sessions.

The subjects offered are water management, sanitation, hygiene, waste management, waste water management, integrated water resource management, ecological sanitation, water security, rain water harvesting, gender in water and sanitation, menstrual hygiene, water sanitation for the disabled, innovations in projects, climate change adaptation, water sanitation in urban context, water quality, water and sanitation in emergencies and others.

Sanitation Park and Modular toilet Production Center

The Course Center also has a well-designed Sanitation park, which houses different models of toilets super structures, leach pits, septic tanks, soak pits, low cost wash stations, waterless urinal and sanitary napkin disposal units. In addition a modular toilet production unit was also established through which pre-fabricated super structures, leach pit rings and septic tanks based on ferro cement technology can be made. The advantages of modular toilets are that they are cost effective, prepared with standard specifications which do away with the need of skilled masons for installation and above all - durable in the long run.
Faecal Sludge Management Research

Faecal sludge management is one of the most neglected areas in the country, and a growing problem. 70% of the total faecal waste generated is left untreated, and connecting all toilets in the country to a common sewer system for treatment in Sewage treatment plants is an uphill task. Many studies reveal that the tankers which are presently in service for cleaning of septic tanks often do not carry the septage to the sewage treatment units, undermining efforts to reduce water body pollution through other Swachh Bharat initiatives. Decentralized treatment of the waste is the best option left and keeping this mind WASH Institute ventured into research on onsite treatment and management of faecal waste with the support of Water for People. The result is three successful models:

i) Leach pit life extender which is a cost effective compact unit that can be installed in a leach pit to segregate liquid waste and treat it, so that the life of leach pit extended. The model is most suited for high water table areas and which are prone to frequent floods.

ii) A mobile on-site treatment unit based on membrane technology, capable of treating 3000 litres/hour.

iii) Electro chlorination unit for treatment of septic tanks in large apartments.

The basic models of the above had been evolved and found to be effective. However further improvisation is needed and the model has to be tested in different geological conditions. It maybe possible to make them commercially viable products through further research and validation.

Adoption of Kathirinampatti Village

The success of ODF project at Vattavada, Kerala prompted WASH Institute to take up more such field projects. WASH Institute adopted the village Kathirinampatti, where the course center is located to make it an Open Defecation Free village. The students of the Course Center interacted with the villagers and local leaders and collected the baseline data on the sanitation status of the village. Door to door campaign advocating the need of toilets was also done. WASHi also has tied up with the local Block Development Office to facilitate construction of toilets under SBM project.

School WASH Project at Munger District, Bihar

WASH Institute tied up with ITC and the Village Welfare Society (VWS) to implement a School WASH (SWASH) project in Dec. 2015 to March 2016. WASHi with the support of VWS organized a series of orientation training to school children on SWASH from 14th March – 17th March, 2016 in 10 schools through which 733 students benefited. WASHi also suggested the local NGO partner VWS to install ‘Swachhta Monitoring Board’ in each school where number of hygiene activities were listed like hand washing before meal, hand washing after defeaction, Nail cutting etc., The entire activity / process has been facilitated by the Sanitation Ministers of the Child Cabinet in presence of WASHi resource persons. The children were encouraged to update the board on a regular
Documentary film on Making Vattavada ODF status

WASH Institute produced an 11 min documentary film on its experience of making Vattavada an Open Defecation Free panchayat with the support of Water For People. The film captures the role of each and every stakeholder in making a panchayat to attain ODF status.

Desk top Calendar and year planner 2016

WASHi as during the earlier years came out with the Desk top Calendar and Year planner for the year 2016 on WASH themes.

Visits by External persons

Ms. Meena Narula, Plan India, visited Vattavada Panchayat, Kerala to see the transformation of the panchayat to ODF status.

Basis. WASH Institute also provided technical assistance for constructing Sanitary Complexes in 10 Schools. A preliminary visit was conducted to understand the existing WATSAN situation in the selected 10 schools and availability of space for construction of sanitary complexes. Based on the situation report on the WATSAN facilities WASHI prepared the design and cost estimate (single storied school sanitary complexes consisting of latrines, urinals, change room, incinerator, hand washing stations and drinking water stations) for all the ten schools and provided the same to VWS for execution. In addition to the design and estimate WASHI also shared all the technical details with the VWS team related to the design, before starting the work in field.

The activity will go into full swing in the next financial year, and a number of other CSR projects will be implemented in the next financial year at Kolkata, Madurai and Dindigul.

Other Salient Activities during the year

Documentary film on Making Vattavada ODF status

WASH Institute produced an 11 min documentary film on its experience of making Vattavada an Open Defecation Free panchayat with the support of Water For People. The film captures the role of each and every stakeholder in making a panchayat to attain ODF status.

Desk top Calendar and year planner 2016

WASHi as during the earlier years came out with the Desk top Calendar and Year planner for the year 2016 on WASH themes.

Visits by External persons

Ms. Meena Narula, Plan India, visited Vattavada Panchayat, Kerala to see the transformation of the panchayat to ODF status.

The team from Water For People Comprising of Mr. Steve Sugden, Mr. Sampath, Mr. Saurya Paul Sekar and Mr. Samrat from Water For People and Mr. Sanjay Singh from PSI visited the FSM research project sites at Trichy and Dindigul.

Efforts taken for placement of students in State Governments

Based on the judgement W.P.No. 3301 delivered on 07.02.2014 by High Court Chennai, WASHI continued to lobby the Government for the issue of a Government Order. This resulted in formation of a committee of senior IAS officers vide GO. MS. No 91 Municipal Administration and Water Supply Department Dated 11.02.2015 to formulate a new GO. In order to expedite the process of getting approval, WASHI again approached the High Court and got another favourable judgement in W.P No 2015 of 2016 staying the recruitment of Sanitary Inspectors in Chennai Municipal Corporation till WASHI students are appointed. This is very promising and WASHI Institute is hopeful of getting the Government orders for appointment in State Government controlled Urban Local Bodies.

Flood Impact Survey in Chennai

A team from WASH Institute visited Chennai, Tamil Nadu which got devastated by floods that occurred due to torrential rains during Nov-Dec, 2016 and made an assessment of the impact of the survey for possible interventions. The team comprised of Mr. A. Kalimuthu, Managing Trustee, Mr. Velusami, Principal/Program Coordinator, WASHi and Mr. S. Ramesh, Training.

WASHI Participation in trainings and meetings

Mr. S. Ramesh, Training coordinator underwent training on testing the bacterial contamination of water on-site using Tryptophan sensor from 16th –24th April, 2015 at Patna, Bihar, organized from Water for People. Water samples were collected from leach pits and analyzed for the tryptophan content in it, which indirectly denotes the extent of bacterial contamination of water. Mr. James from the British Geological Society facilitated the training.

Mr. A. Kalimuthu, Managing trustee and Mr. S. Ramesh participated in the meeting organized by Sphere at World Vision Office, Chennai on 14.12.2015, and shared the Flood Impact Assessment made by the WASHI team to facilitate possible course of action.
### General Council

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name</th>
<th>Address</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. T.T. Ranganathan</td>
<td>Prof. of Agriculture, Gandhi Gram Rural Institute, Gandhi Gram, Dindigul</td>
<td>Trustee - President</td>
</tr>
<tr>
<td>2</td>
<td>Mr. Arumugam Kalimuthu</td>
<td>Program Director, Swachh Bharat Mission (Urban) Technical Assistance Program WASH Institute, New Delhi</td>
<td>Managing Trustee</td>
</tr>
<tr>
<td>3</td>
<td>Mr. L. Peter</td>
<td>Executive Secretary, Rural Education and Action Liberation (REAL) 624 008, Tamil Nadu</td>
<td>Trustee - Treasurer</td>
</tr>
<tr>
<td>4</td>
<td>Mr. Tom Palakudiyil</td>
<td>Interim Director of International Programmes, Water Aid, London</td>
<td>Member</td>
</tr>
<tr>
<td>5</td>
<td>Mr. R.K. Srinivasan</td>
<td>Technical Adviser – WASH Plan India, E-12 Kailash Colony, New Delhi 110048</td>
<td>Confirmation awaited</td>
</tr>
<tr>
<td>6</td>
<td>Dr. Subbiah Ponnuraj</td>
<td>Senior WATSAN Specialist, Gandhiagram, Tamil Nadu. Member, National Sanctioning Committee for NBA and Research Advisory Committee, MDWS, GoI</td>
<td>Member</td>
</tr>
<tr>
<td>7</td>
<td>Mr. D. K. Manavalan, IAS (Retd)</td>
<td>Executive Director Action for Food Production (AFPRO), New Delhi-110 058</td>
<td>Member</td>
</tr>
<tr>
<td>8</td>
<td>Mr. S. Paramasivan</td>
<td>Country Director, Wherever the Needs (UK) Cuddalore, Tamil Nadu</td>
<td>Member</td>
</tr>
<tr>
<td>9</td>
<td>Mr. Neeraj Jain</td>
<td>Country Director, Water Aid India - Country office, New Delhi</td>
<td>Member</td>
</tr>
<tr>
<td>10</td>
<td>Mr. P Uday Shankar</td>
<td>Regional Director – Water.org India Country Office, Chennai, Tamil Nadu</td>
<td>Member</td>
</tr>
<tr>
<td>11</td>
<td>To be recruited</td>
<td>Chief Executive Officer, WASHI</td>
<td>Ex-officio member</td>
</tr>
</tbody>
</table>

### Advisory Committee

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name</th>
<th>Address</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. Ian K Smout</td>
<td>Director WEDC, Loughborough University (UK)</td>
<td>Member</td>
</tr>
<tr>
<td>2</td>
<td>Ms. Ingeborg Krukkert</td>
<td>Lead Asia programmes at IRC Sanitation and hygiene specialist International Resource Centre, The Hague. The Netherlands.</td>
<td>Member</td>
</tr>
<tr>
<td>3</td>
<td>Ms. Jenny Gronwall</td>
<td>Manager (capacity building) SIWI, Sweden</td>
<td>Member</td>
</tr>
<tr>
<td>4</td>
<td>Ms. Verity Corbett</td>
<td>Independent Consultant New Delhi</td>
<td>Member</td>
</tr>
<tr>
<td>5</td>
<td>Mr. James Wicken</td>
<td>WASH Specialist, U.K.</td>
<td>Member</td>
</tr>
<tr>
<td>6</td>
<td>Mr. Ned Breslin</td>
<td>Global WASH Specialist</td>
<td>Confirmation awaited</td>
</tr>
<tr>
<td>7</td>
<td>Mr. Frank Odhiambo</td>
<td>UNICEF WASH Specialist, New Delhi, India</td>
<td>Member</td>
</tr>
</tbody>
</table>
Water Sanitation and Hygiene Institute sincerely thank our General Council, Advisory Council and Executive members for their continued support and guidance which helped greatly in enhancing the quality of our services and in the growth of the organisation. WASH Institute is also very much grateful to its partners and donors viz., Ministry of Urban Development, Ministry of Drinking Water and Sanitation, State Governments, BMGF, USAID, Water For People, Plan India, PSI, NRMC, RAMCO Cements Ltd., ITC Ltd., and other stakeholders for their continued support and patronage. We also thank our bankers Canara Bank, Kodaikanal and our auditors Annamalai Associates, Chennai for their valuable services. Above all we thank the community for their interest and enthusiasm in associating with us which is what stirs us forward to realize the goals before us.

Acknowledgement