



Annual Report 2009-2010



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ACRONYMS

| | | | |
|--------|-------------------------------------------------------|---------|--------------------------------------------------------|
| ACT | Arid Communities and Technologies | MGNREGA | Mahatma Gandhi National Rural Employment Guarantee Act |
| ASHWAS | A Survey of Household Water and Sanitation | MLD | Million Litres per Day |
| BWSSB | Bangalore Water Supply and Sewerage Board | MHRD | Ministry of Human Resource Development |
| C&A | Communications & Advocacy | NFI | National Foundation of India |
| CBSE | Central Board of Secondary Education | NGP | Nirmal Gram Puraskar |
| DDWS | Department of Drinking Water and Sanitation | PRI | Panchayati Raj Institutions |
| DSERT | Department of State Educational Research and Training | R&D | Research & Development |
| ECOSAN | Ecological Sanitation | RTI | Right to Information |
| F&A | Finance & Administration | SANDRP | South Asia Network on Dams, Rivers and People |
| GWM | Groundwater Management | SC/ST | Scheduled Castes and Scheduled Tribes |
| HDI | Health & Development Institute | SEI | Stockholm Environment Institute |
| HSS | Himalaya Seva Sangh | SSF | Slow Sand Filters |
| IDWM | Integrated Domestic Water Management | TMC | Town Municipal Council |
| IISc | Indian Institute of Science | TSC | Total Sanitation Campaign |
| ILCS | Integrated Low Cost Sanitation | UNDP | United Nations Development Program |
| IMD | India Meteorological Department | VWSC | Village Water and Sanitation Committee |
| IUWM | Integrated Urban Water Management | WATSAN | Water and Sanitation |
| IWP | India Water Portal | WEAP | Water Evaluation and Planning |
| JNV | Jawahar Navodaya Vidyalaya | WNNS | Ward <i>Neeru</i> and <i>Nirmalya Samiti</i> |
| KLD | Kilolitres per Day | WOTR | Watershed Organisation Trust |
| KV | Kendriya Vidyalaya | WQ | Water Quality |
| O&M | Operation and Maintenance | WS | Water Security |
| OD | Open Defecation | | |

CONTENTS

| | | |
|----|---|-----------------------------------|
| 04 | – | Chairperson's Note |
| 05 | – | CEO's Message |
| 06 | – | About Arghyam |
| 10 | – | Grants |
| 18 | – | Integrated Urban Water Management |
| 22 | – | India Water Portal |
| 26 | – | Research & Development |
| 28 | – | Communications & Advocacy |
| 34 | – | Technology |
| 36 | – | Finance & Administration |
| 38 | – | Arghyam Team |

CHAIRPERSON'S NOTE



The completion of five years is a good milestone in the journey of a small organisation – a time to look back honestly, to reflect, a time to re-imagine the work ahead. Arghyam celebrated five years of work in the water sector on April 3, 2010. It has been an incredible journey and we look forward to many more years.

When Arghyam moved into the water space, the first Indian foundation to focus exclusively on the sector, it was with good intention but perhaps insufficient knowledge about the sector in our small team.

Five years later, we have immersed ourselves in the water and sanitation domain, learning every day about the nuances and complexities in dealing with water issues. Our growing team is passionately committed to the vision we have put out. We are not afraid to make mistakes and to learn from them. In fact, we believe a foundation like ours must take on the risk in trying out new approaches and ideas that the state or business cannot take on for fear of financial or political failure. So we have taken on tough challenges, especially in our urban project. It has taught us much humility, as the ground reality is much more difficult than we had imagined. Yet, if this drawn out process is successful, it will enable a small town like Mulbagal to look at its water security in an integrated manner, from source-to-sink, and show the way to hundreds of such towns across the country.

There is a long way to go, and many structural and policy issues to be tackled before the integrated management of urban water can become a reality. However, we believe there are moral and strategic imperatives to rethink municipal water in India. The current models are socially unjust, economically ineffective and ecologically unsound. As millions move into our cities and towns in the coming years, we have to create new sustainable

models to provide water for all citizens. Arghyam hopes to be part of a deepening national discourse on urban water in the days to come, which is also critically linked to the discourse on decentralisation in the true spirit of the 74th amendment to the Constitution.

There is a similar need to focus on completing the decentralisation of functions, finances and functionaries in the rural sector in the spirit of the 73rd amendment. When it comes to rural water, we again see a gap between the obligation of the local government to provide safe, predictable water to people and their capacity to do so, given the number of constraints. Compared to the needs of agriculture, industry and urban areas, the rural domestic water demand is a small fraction. But it is critical to the well-being of a majority of our people and none of us can afford to take our eye off this ball.

Meanwhile, our continued grant-making, the expansion of the India Water Portal, the completion of the household survey ASHWAS and its follow-up work have all been part of last year's achievements that are highlighted in this annual report. We hope readers will provide us with feedback and suggestions, which are most welcome. On behalf of the Board and the whole team, I take this opportunity to thank all the individuals and organisations, as also government representatives with whom we have worked.

As always, we use this time to re-commit ourselves to enabling safer and more sustainable water for all.

Rohini Nilekani

CEO'S MESSAGE



At a national consultation on sustainable sanitation that we organised last September, Planning Commission Member, Dr. Mihir Shah, emphasised a point often made by other experienced NGO leaders. While many field organisations routinely implement small-scale projects with high quality, there is little opportunity to leverage that experience as it often remains a story or a case-study. Instead, their collective knowledge must be translated to specific processes for project planning and implementation. These can then be adopted more easily by Government or other institutions wishing to scale up the programme.

This point strikes a powerful chord with us. This past year, we collated such knowledge from the field and developed two process documents (or how-to manuals) on Sustainable Sanitation and ASHWAS – A Citizens' Survey. These included the different phases of such a programme, typical activities that need to be carried out, along with the time-frame and resource requirement for each. Similar effort for Participatory Groundwater Management guideline with a consortium of practitioners has been initiated. Across Arghyam, the discussions have been around internalising and institutionalising knowledge.

Last year Arghyam continued to experience rapid growth and reported a significant achievement against plan and budget. The work supported by Arghyam through its partners now touches the lives of more than 500,000 people in more than 1000 villages across 18 states; last year, more than 40 projects were supported and our overall budget climbed to ₹ 11.03 crore against ₹ 7.87 crore the previous year. The team has grown to 31 employees, a 100% growth from last year. 4 new members got added to our Board, bringing with them decades of cumulative experience and wisdom. A challenge we faced last year was managing the rapid growth and the associated changes. A significant proportion of the effort last year went into systemic changes; processes for compliance, financial, administrative and management were put in place. A five-year strategy for Arghyam was developed to guide us in planning our programmes upto 2015.

The India Water Portal team migrated to a content management system, Drupal, to enable more user interaction and easier management. In March, for World Water Day, the Portal Team conducted a competition for Bengalureans to chronicle the lost lakes of the city through film. This saw a range of creative

responses including a silent film, some on myths and folklores and a story about generations of families dependent on a lake.

Our rural Grants team put considerable effort into knowledge-sharing and capacity-building last year. Trainings and workshops were held where partners working on different themes from around the country were invited to facilitate cross-learning. ASHWAS, the citizen survey report was launched and the results were taken back in the local language, Kannada, to each of the communities in which the survey was conducted. Those *gram panchayats* then engaged in developing action plans based on the survey results. This 'closing the loop' on a survey exercise by taking it back and using it for local planning was appreciated widely, and it was gratifying to receive an award last year for Excellence in Information Integrity by the Information Integrity Coalition. There has also been interest from several quarters in incorporating the ASHWAS methodologies into other surveys.

The complexity of the Integrated Urban Water Management (IUWM) initiative in Mulbagal offers both a challenge and an opportunity. This is an ambitious programme where we're trying to bring in stakeholders from different backgrounds and interests to align efforts for long-term sustainability. Last year we completed several in-depth scientific studies, and implemented small projects to address the problems revealed by those studies. We are now gaining traction with the Municipal Council and the community. A key milestone would be achieved in 2010–2011 with people's participation for the development and implementation of an integrated plan for the town's water management.

One of the challenges facing the sector today is to make a compelling case for participatory approaches and smaller, decentralised interventions so that they can be seen as viable options for our towns and villages. Weak local capacities for implementation and lagging sanitation performance continue to be causes for concern. As we enter our next year, we're conscious of these looming challenges and are designing our activities in this context. Having completed five years in the sector, we also plan to undertake an independent review of our efforts so far.

We take this opportunity to thank all those numerous individuals and organisations who have been with us on this journey and look forward to continued collaboration and mutual learning in the future.

Sunita Nadhamuni

MISSION

To partner with individuals, organisations and governments to create, promote and sustain ideas and efforts towards achieving the vision

VISION

SAFE, SUSTAINABLE WATER FOR ALL

Arghyam's focus is on domestic water which is the small but critical amount of water needed by every individual to meet their basic daily needs. It includes:

- The daily human functions of drinking, cooking, cleaning, washing, sanitation and bathing.
- Water that is vital to village-based livelihoods like livestock, subsistence cropping and household crafts.

ABOUT ARGHYAM

Arghyam is a public charitable foundation set up in 2001 with a personal endowment from Ms. Rohini Nilekani. The objective of Arghyam is to support sustainable efforts that enhance equity in access to water for all.

APPROACH

- Arghyam will design its initiatives through the lenses of social, institutional, technical, environmental and financial sustainability.

VALUES

- Arghyam is an open learning organisation driven by the spirit of service and compassion, functioning in a professional manner with an emphasis on working through partnerships.
- As an independent and flexible funding organisation, Arghyam will continue to be open to absorbing risks.

GOALS

- Increase the number of people especially the poor and vulnerable who have access to safe drinking water and sanitation.
- Develop sustainable water management practices, models, tools, and processes.
- Use information and knowledge to impact policy and practice.

STRATEGY

- Integrated management of water at a local level by ensuring sustainability, good governance and empowerment of the local government.

In 2009-2010, Arghyam experienced rapid growth and reported a significant achievement against plan and budget

500,000 +

people in 1,000 villages enabled to access water and sanitation

40 +

projects supported in 2009-2010; across

18 states

with an our overall budget of

₹ 11.03 crore

against ₹ 7.87 crore in the previous year



By the people:
Towards domestic water security



GRANTS

Arghyam supported 21 new grants across 15 states amounting to ₹ 6.36 crore in Water Security, Integrated Domestic Water Management, Sanitation, Groundwater Management, Water Quality, Capacity Building and Advocacy.

WATER SECURITY

Water security in drought and flood-prone, as well as urban and rural areas can be achieved through the promotion of sustainable, indigenous, scientific methods of water harvesting. It entails engaging with communities and/or the government to build capacities and/or promote the effective planning and management of water resources.

A multi-pronged approach to water security has been adopted in a flood-ravaged village in North Karnataka including the repair of hand pumps, construction of toilets, bathrooms, drains, soakpits, and kitchen gardens. In Uttarakhand, the focus has been on the rejuvenation of traditional water sources in the Himalayan region through *chaals* (recharge pits/small ponds), *naula* and *chashma* (water spring), and the construction of slow sand filters (SSF) (see Box: Rejuvenating traditional water structures in the Himalayan region).

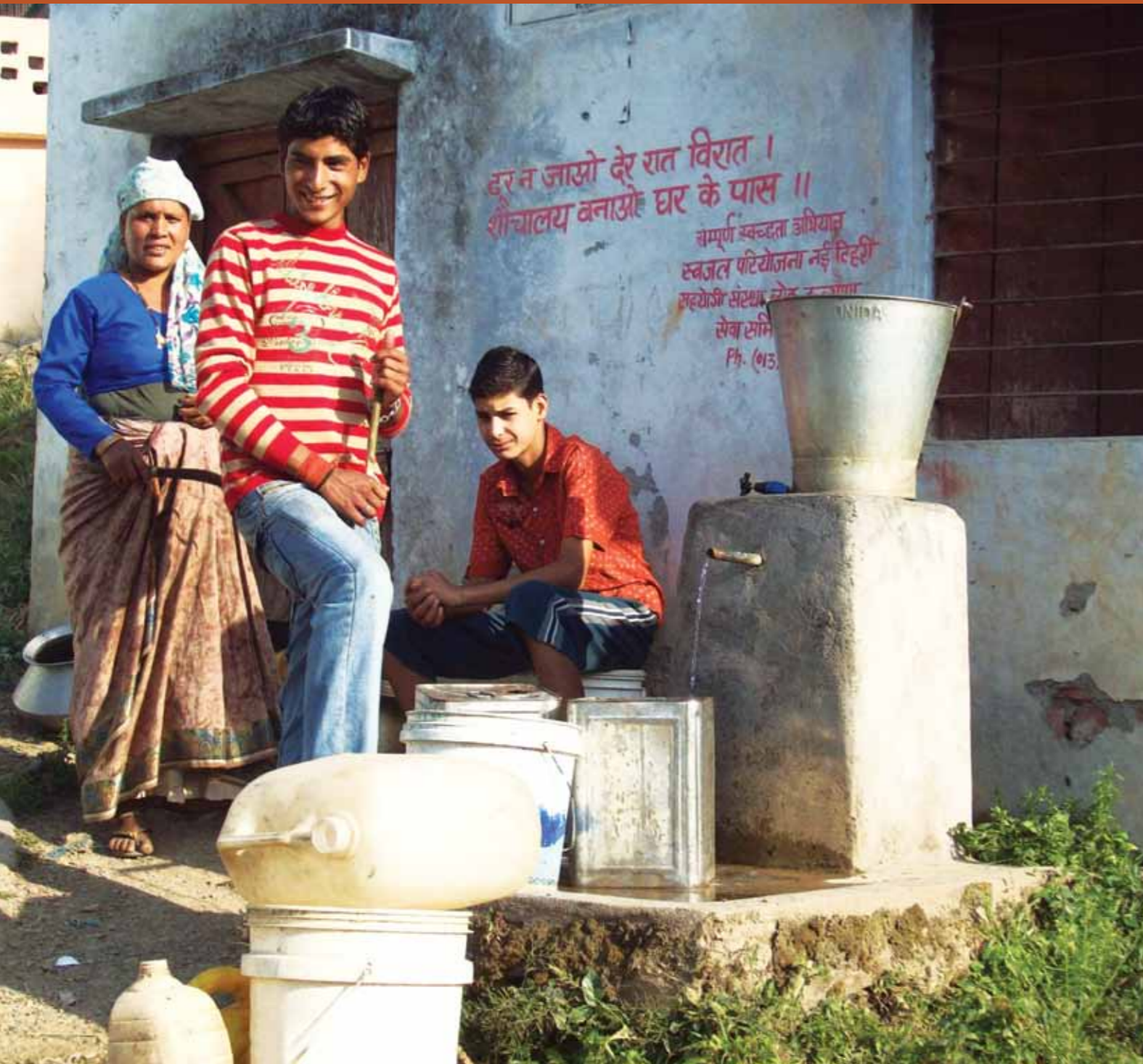
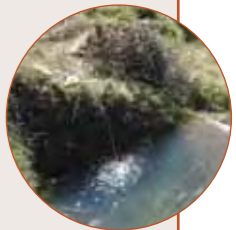
Let this water be ours



REJUVENATING TRADITIONAL WATER STRUCTURES IN THE HIMALAYAN REGION

Arghyam supported the Himalaya Seva Sangh (HSS) for the provision of drinking water in 36 villages of Tehri Garhwal and Uttarkashi districts, Uttarakhand. Through its network of partners, HSS facilitated weeklong women's camps to revive existing *chaals* and construct new ones using their traditional knowledge through *shramdan*. "Unlike the concretised *chaals* constructed through the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) which retain water only during the post-monsoon period, *chaals* constructed with local raw materials are easier to maintain reducing the dependence on the government departments for repair," says Gulab Singh of Chopriali village in Tehri Garhwal district. The community contribution to the *chaal* construction was 75% while the organisational contribution was 25%; a portion of the latter was allocated to the *gram kosh* (village fund) for drinking water projects. These 150 *chaals* help to recharge groundwater, and provide drinking water for cattle.

Moreover, the *chaals* constructed on the upper reaches serve as a watering hole for wild animals and help to keep them away from the agricultural fields. HSS is seeking to collaborate with the Gobindballabh Pant University to conduct geo-hydrological studies that would provide scientific evidence regarding the ideal location for a *chaal*, as well as its impact on recharging the groundwater and increasing the stream flow.



INTEGRATED DOMESTIC WATER MANAGEMENT

Integrated Domestic Water Management (IDWM) aims to provide safe, sustainable water for all in a rural setup. It lays emphasis on community-owned, managed systems with appropriate institutional mechanisms to ensure inclusion and equity. The idea is to manage water locally, by closing the water loop, thereby, reducing vulnerability.

The IDWM model works towards establishing linkages between water resources, water supply systems and infrastructure, access to water and its usage, and sanitation [treatment and safe disposal or reuse of wastewater] within a system. A draft checklist of indicators on water supply, sanitation and governance for IDWM projects, has been prepared and is currently being shared with our partners for feedback.

Arghyam is supporting its partner NGO, Seva Mandir in the implementation of models for the integration of water sources, supply, usage, sanitation, and wastewater disposal in 12 villages of Udaipur and Rajsamand districts of Rajasthan. Arghyam's ongoing IDWM projects in 4 villages of Karnataka with MYKAPS and MYRADA (see Box: Demonstrating IDWM in Karnataka), 10 villages in the Bundelkhand region of Madhya Pradesh and Uttar Pradesh with Development Alternatives and 10 villages in Maharashtra with Watershed Organisation Trust (WOTR) attempt to demonstrate how integration brings in synergy and prevents programmes from becoming counter-productive to each other.

Building local capacity for uninterrupted water supply



DEMONSTRATING INTEGRATED DOMESTIC WATER MANAGEMENT IN KARNATAKA

Arghyam has supported MYKAPS in HD Kote taluka since 2006 for an IDWM project in the village of B. Matagere. The SC/ST Colony in the village has 184 households and a population of 864. It demonstrates a model that would make water and sanitation accessible and sustainable for every household for drinking, cooking, bathing, toilet, washing utensils and clothes, cleaning the house and its surroundings. This is enabled through socio-technical interventions and an institutional system for operation and maintenance (O&M), namely, the village water and sanitation committee (VWSC). Through a process of substantial awareness-raising including exposure visits to a decade old community-managed watsan system, and capacity building programmes, the village now has a robust water and sanitation committee.

Water: The village has piped water supply with a water meter for every household on payment of ₹600 deposit. The committee has appointed a water woman from the village to ensure a daily and timely supply of water to all the households for which she collects a tariff of ₹30 per month. The VWSC is negotiating with the community for a tariff structure based on consumption. The village has 75 household-level rainwater harvesting structures constructed with a 10% contribution from each household. These serve as a supplementary water source that helps to reduce the extraction of groundwater for non-potable purposes.

Sanitation: With the incentives leveraged from the Total Sanitation Campaign (TSC), Arghyam funds and *shramdan* (voluntary labour), 75 ecosan and 60 single pit toilets were constructed. High usage of these toilets has been reported. Similarly, school water supply and sanitation has also been addressed.

The VWSC leveraged *gram panchayat* funds which Arghyam topped up to ensure 100% street drainage. The households are encouraged to maintain and clean their street drains.



SANITATION

Providing sanitation facilities and bringing about behavioural change are directly linked to improving the quality of life through positive effects on health, water quality and the number of available working hours (see Box: Spreading the word on sanitation). Hence, Arghyam's sanitation programme concentrates on building knowledge and capacities of various stakeholders, facilitating the use of the technically right option for the area, enabling cross-learning of experiences and influencing policy change. Arghyam's support to sanitation includes community-managed water and sanitation facilities in the slums of Tiruchirappalli, Tamil Nadu, creation of demand for and construction of household toilets in Gujarat, Karnataka and Tamil Nadu, and rebuilding the water and sanitation systems in a flood-affected village in North Karnataka. Partners are encouraged to leverage funds from the Total Sanitation Campaign.

GROUNDWATER MANAGEMENT

Arghyam is concerned with developing complete solutions for groundwater management that integrate the supply-side solutions with demand management, based on a thorough understanding of groundwater resources. This is done by facilitating participatory decision-making and management to ensure equitable impact.

The Grants Team extended support to remote habitations in South and East Sikkim to address the drinking and domestic water scarcity through user groups in collaboration with the government. It also supported the district administration in Thrissur district, Kerala on an open well recharge programme (see Box: *Mazhapolima – Bounty of Rain*). The issue of groundwater is also embedded in water security, water quality and IDWM that the Grants Team supports.

SPREADING THE WORD ON SANITATION

Having benefitted from Gramalaya's loan to build a toilet, Anna Lakshmi is keen to motivate others to do the same. "It is a strong sense of wanting other people to have the hygiene that I have now, and to have the empowerment that I have because of my work... Since it does not pay anything, sometimes my husband gets a little agitated because there is work to do in the field, yet, he supports me. He enjoys the fact that I am able to spread this message to people because when we wanted to build a toilet, we had no money to build one..."



MAZHAPOLIMA – BOUNTY OF RAIN

A community-based and decentralised open well recharge programme was initiated by the District Collector, Thrissur district, Kerala in collaboration with the *panchayatiraj* institutions. An impending drinking water crisis was in store for Thrissur with a declining water table and the ingress of salinity. In response, a programme to recharge all the open wells in the district was conceptualised so as to reduce dependence on a tanker-based supply of water. The revival of approximately 4.5 lakh open wells would require expertise and handholding. Therefore, Arghyam pitched in to support the *Mazhapolima* Monitoring and Co-ordination Unit to generate data and strengthen the research component of the programme. So far, *Mazhapolima* has helped recharge 2,536 wells in Thrissur district; this is an example of decentralised groundwater management at an impressive scale!





WATER QUALITY

Surface and groundwater become unfit for consumption due to poor water quality and contamination. Thus, understanding water quality standards and creating low-cost, effective, large-scale water-purification systems, which provide safe drinking water for communities, is a priority area for Arghyam.

The strategies to address poor water quality include rainwater harvesting (RWH), percolation tanks for dilution of fluoride, household defluoridation filters, arsenic removal units, etc. It also promote community-level interventions like water quality monitoring through capacity building in Andhra Pradesh, Bihar, Gujarat, Karnataka and West Bengal (see Box: When watsan promotes safe drinking water and menstrual hygiene). In Orissa, support has been extended to establish a regional resource centre for sustainable and cost-effective watsan solutions.



CAPACITY BUILDING

Education and capacity building play a key role in Arghyam's efforts to improve water management practices and scale up solutions, especially at the individual and community level. By doing this, Arghyam aims to address the issues of low capacity at the grassroots level. For instance, Arghyam supports an initiative called Parab, a Kachchhi word denoting a water service centre, which seeks to build local capacities for groundwater management and extend its services to local people (see Box: *Parab – building local hydro-geologists*).

Across North, Central and East India, Arghyam has established a *Fellowship Programme on Building and Nurturing Leadership* that seeks to develop leadership in water and sanitation at the grassroots by proactively engaging with inspired individuals (25 fellows will be identified) across the country.

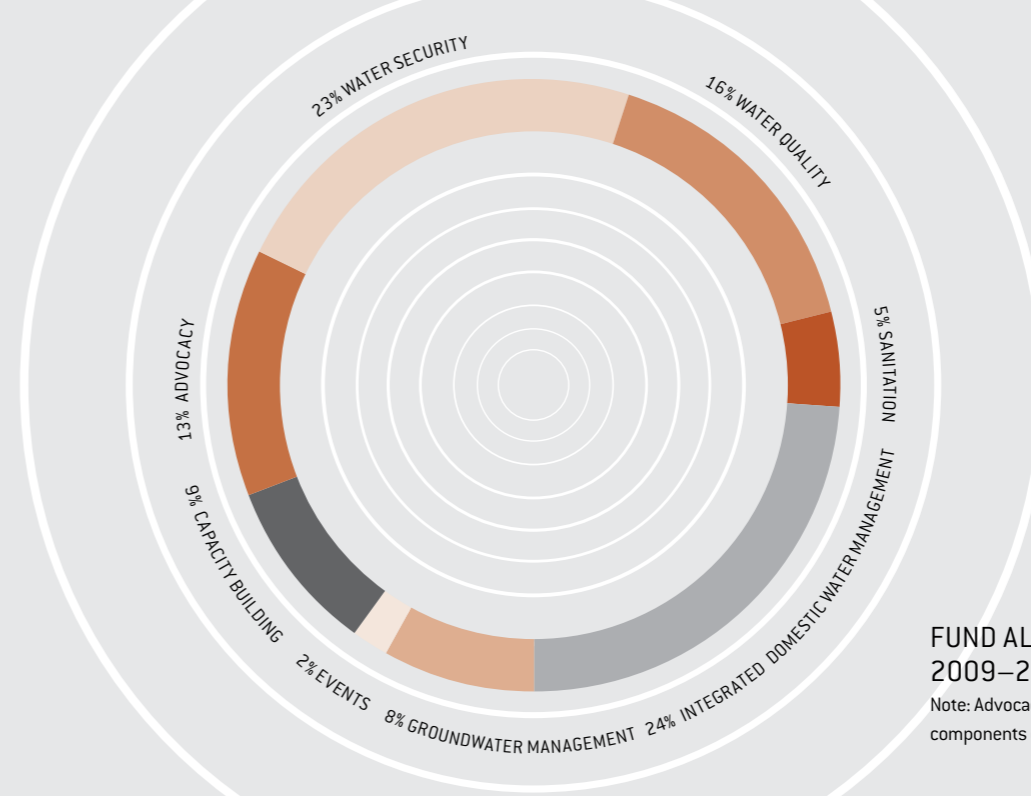
WHEN WATSAN PROMOTES SAFE DRINKING WATER AND MENSTRUAL HYGIENE

This donor convergence programme between Water For People India Trust and Arghyam, working with grassroots partners (SATHEE and Naihati Prolife) in 6 high schools in the arsenic-affected Habra-II block, North 24 Parganas, West Bengal has provided arsenic-free, safe drinking water with AMAL Arsenic Removal Units. The sanitation intervention has created facilities for menstrual health and hygiene management among adolescent girls. Thus, 6,803 young girls and boys have benefitted from the provision of safe drinking water and access to well-maintained toilets.



PARAB – BUILDING LOCAL HYDRO-GEOLOGISTS

When Chandrasinh Jadeja's mother died, he stopped going to school. With no formal education he worked as an assistant to a truck driver, earned a meagre wage and little respect from his family. Inspired by an "educated man" in the village, he began to work with various NGOs in his area and learnt of Arid Communities and Technologies (ACT). During the Arghyam-supported *Parab* internship programme at ACT, Chandrasinh's excellent performance got him through to the advanced training programme. His passion for groundwater led to his recruitment by a nationally renowned NGO – VRTI. *Parab* has been established to enable youth, even those with little education, to develop expertise in groundwater management. The programme envisages supporting 18 students to study water management issues in the semi-arid area of Kachchh. After their graduation, they serve as resource persons to state and non-state actors in the natural resource management programmes. The aim is to use their knowledge to help plan the wise use of water.



FUND ALLOCATION 2009–2010

Note: Advocacy and capacity-building are also components of all the thematic areas

ADVOCACY

Arghyam's advocacy efforts accord a pivotal role to on-the-ground learning. Through these, they seek to influence policy-level interventions so as to scale up successes in water and sanitation at the local level. Furthermore, an immediate need that has arisen from Arghyam's work in the water sector is to facilitate cross-learning between the various practitioners.

Arghyam currently works with 6 partners in a variety of advocacy efforts. Arghyam has sought to raise awareness on water and environment-related issues through support for the screening of films and documentaries across cities and towns in Karnataka and the adjoining states, as well as a quarterly newsletter in Kannada. It has also supported a policy initiative on water law reforms in Delhi, Karnataka and Uttar Pradesh that is dialoguing with *panchayati raj* Institutions (PRI) and communities to understand impediments to decentralised water governance. The Arghyam-supported State Resource Centres in Kerala and Orissa are concerned with mediating and resolving conflicts in the water sector (see Box: Forum for Policy Dialogue on Water Conflict).

Arghyam has been at the forefront of water dialogues through its support for the United Nations Development Program (UNDP) Solution Exchange meet of water sector actors in Kolkata, dialogues on groundwater contamination from radioactive substances in Punjab, and the acclaimed Water Film Festival in Karnataka – *Voices from the Waters*. Arghyam has been an active participant in conferences on learning from the Total Sanitation Campaign, groundwater quality, and the state of water resources and the environment.

FORUM FOR POLICY DIALOGUE ON WATER CONFLICT

The Forum for Policy Dialogue on Water Conflicts in India, is a collective of academics, activists, civil society groups and media persons who work in the water sector. It works on documenting, mediating and preventing conflicts around water. As a part of its effort to engage in and enable policy dialogue, the Forum is bringing out position papers on 2 critical themes in the space of water conflicts – water entitlements and allocations for livelihoods and ecosystem needs, and the legal-institutional framework for conflict resolution. Key people in the sector were identified to contribute chapters on important topics under each theme. A draft version of the position papers was prepared and shared with a larger group of experts from the water sector in a National Workshop held in Pune, 25–26 February 2010. The workshop provided several new perspectives and comments on the drafts; these are now being incorporated and the final position papers are being prepared. The Forum disseminates its work through regional outreach meetings, network meetings, publication of proceedings, water conflict portlet, etc. The Forum has identified new areas of documentation on conflicts around water in the North-East and on floods. It also seeks to engage itself in training, capacity building and sensitisation for conflict resolution in the coming years.



WAY FORWARD

CAPACITY BUILDING








The complexity of the water and sanitation space requires a range of experts – social, technical and institutional – to work on sustainable solutions. Citizens governed by *gram panchayats* have to contend with the absence or sub-optimal availability of basic facilities, which is further complicated by the issues of decentralisation, especially inadequate capacity to plan and deliver. In order to raise the level of performance among organisations created for providing these facilities, an emphasis needs to be laid on building their capacities. Given the limited availability of such expertise, the capacities of civil society institutions as well as *panchayati raj* institutions need to be built.

There is a need to harness the potential of technology and communication to enable civil society to build its capacity to explore, document and share sustainable watsan solutions. In the coming years, the Grants Team looks forward to building the knowledge and skill sets of its partners and itself. It would require strengthening the existing interventions with critical gap supports to enhance outcome sustainability, as well as strengthening documentation, communication and dissemination of supported projects to share learning.

NURTURING SYMBIOTIC PARTNERSHIPS

- The pulls and pressures that confront programme partners during implementation need to be addressed, especially when their broad development agenda encompasses more than the donors' thematic focus.
- The partnerships with government organisations are vulnerable to changes in leadership, and delays in fund releases that impede work at the grassroots.
- Arghyam's visibility generated considerable expectation on its financial and human resources from civil society organisations and other institutions. The challenge for Arghyam is to select the projects which are best aligned to its vision and mission.

LEGEND

- Indian states covered by Arghyam projects
- Indian states not covered by Arghyam projects
- New partners, 2009 – 2010
- Continuing partners
-  Integrated domestic water management
-  Water security
-  Sanitation
-  Groundwater management
-  Water quality
-  Advocacy
-  Capacity building

- The varying positions on aspects of the water sector are often polemical; this requires an investment in dialogue so as to incorporate the nuances into Arghyam's watsan approaches and strategies.
- The external reviews on impacts and outcomes will aid the Grants team to make informed decisions on partnerships. Regions with acute development needs such as Bihar, Chhattisgarh, Jharkhand and Uttar Pradesh will be prioritised for partnerships with civil society and government organisations.

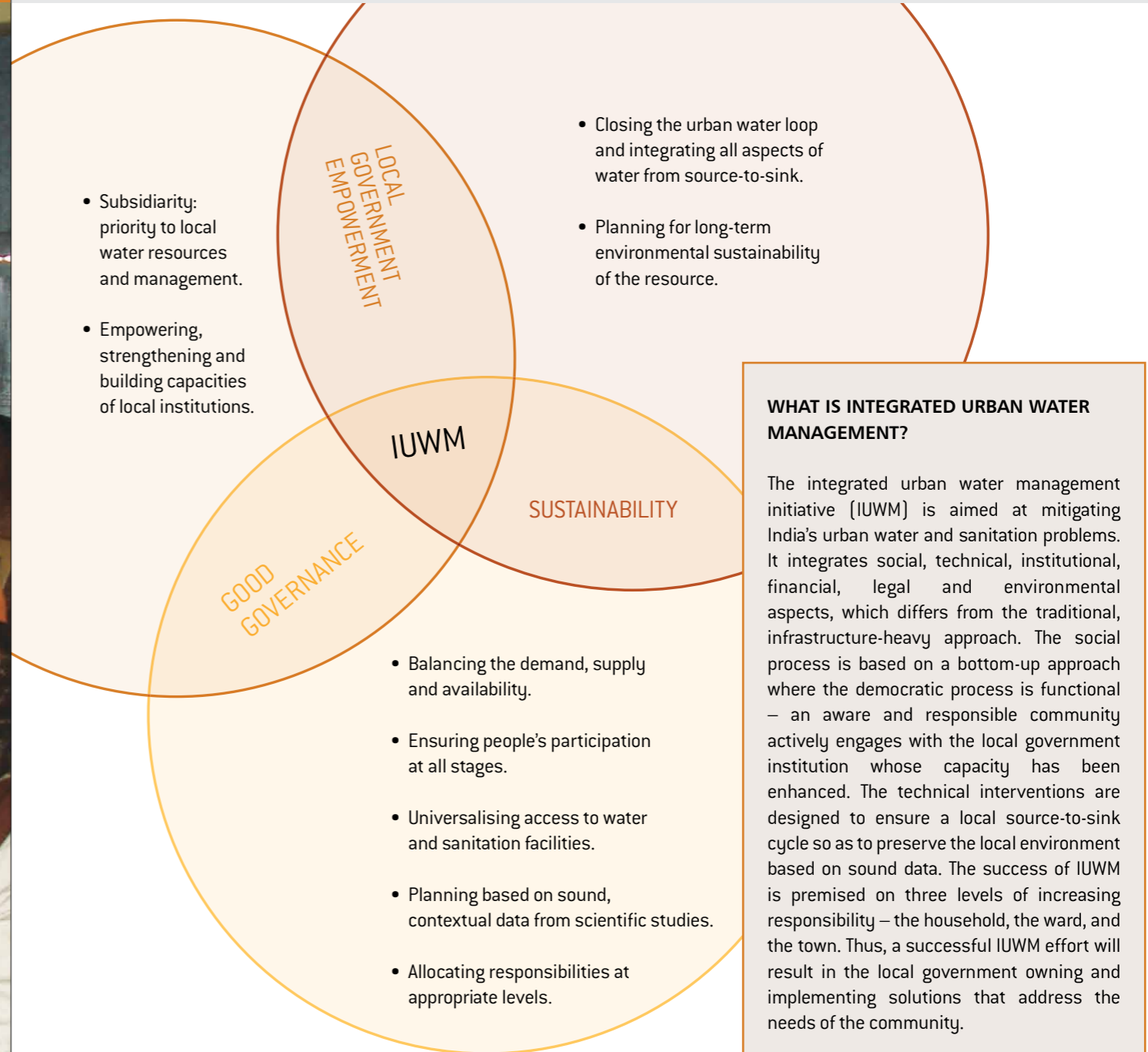


Managing water:
Voice mechanisms in an urban space



INTEGRATED URBAN WATER MANAGEMENT

Arghyam, in partnership with state, district and local governments, experts and NGOs, initiated an Integrated Urban Water Management demonstration activity in 2008 in Mulbagal (70,000 population) a small town in Karnataka.

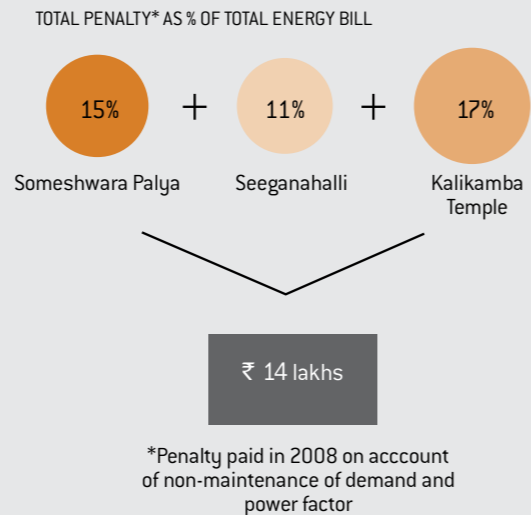
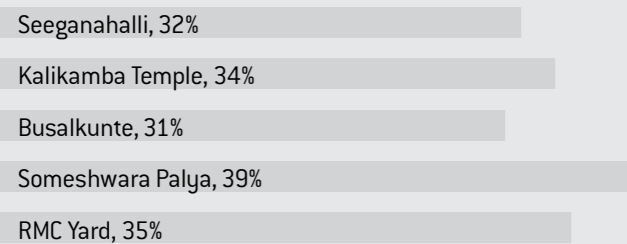


MULBAGAL ENERGY STUDIES: PUMPING INEFFICIENCIES RESULTING IN AN INCREASED ENERGY COST

OPTIMAL RANGE OF EFFICIENT OPERATION



PUMPING STATION-WISE EFFICIENCY OF OPERATION, %



MULBAGAL STUDIES

IUWM relies on the use of scientific methods and data-based decision-making (see Box: What is IUWM?). Hence, baseline data collection studies were undertaken. The process of data analysis, problem identification, and finding innovative solutions is in progress.

Groundwater study: In the absence of data at a micro-watershed level, Arghyam partnered with the Indian Institute of Science (IISc) to study 250 observation wells in Mulbagal. The groundwater levels were found to be shallow throughout the year despite groundwater extraction. The findings of the study will enable the Mulbagal Town Municipal Council (TMC) to manage the groundwater recharge and sustainable pumping, and assist in exploring and designing interventions independent of external sources.

Water Evaluation and Planning (WEAP): Data-based planning is one of the key aspects of IUWM. WEAP is a software package from the Stockholm Environment Institute (SEI), which has been explored as the planning tool for projecting and simulating various scenarios with regard to the demand and supply over the long-term for Mulbagal.

Energy: The Mulbagal Town Municipal Council (TMC) has five pumping stations providing a daily water supply of 2.27 million

DEVELOPING A PARTICIPATORY PLAN FOR IUWM, MULBAGAL

Scientific studies have been conducted to understand the water situation in Mulbagal town. The community has been mobilised, ward-level groups have been formed and the capacities of local municipal staff and the council have been strengthened. A participatory plan for water management in the town is being developed by the people and the Council to reflect the actual needs of the people as well as the unique situation of water in the town. The plan is guided by IUWM principles of sustainability, efficient management of local water, access to water for all citizens. The TMC will present this plan to the state-level bodies for funding and implementation. The town council and citizens' groups will be involved in monitoring the projects being implemented, and the operation and maintenance thereafter. The entire process will be repeated every year in an incremental progression towards IUWM.



litres per day [MLD]. The TMC incurs a high expenditure on electricity due to inefficient motor pumps. An energy audit was conducted, to understand the state of energy efficiency in the municipal water system. This study recommended a series of interventions including replacement of the old pumps and revamping the electrical installations. As a follow up, one of the pumps was replaced to demonstrate energy efficiency, thereby, resulting in a monthly saving of ₹ 35,000.

Water assets: An inventory of Mulbagal's water and sanitation assets were developed by Trenchless Technology International (TTI). This database is available on a geographical information system, which can be used for day-to-day operation and maintenance, permission for road cutting, history of repairs, etc.

MULBAGAL DEMONSTRATION ACTIVITIES

A few small-scale, short-term activities were undertaken to ensure continuing stakeholder engagement:

- Rainwater harvesting in two schools to benefit students.
- Sanitation *saptah* (week) to educate the community about sanitation through improved garbage collection and sanitation services.
- Exposure visits to Udipi and Kundapur for TMC councillors to understand successful urban water and solid waste management practices.
- Replacement of dysfunctional public water taps with new ones as a public service initiative.
- Replacement of one pump to demonstrate cost saving from energy efficient pumps.

MULBAGAL INSTITUTION-BUILDING

Several initiatives were undertaken to increase the capacity of the institutions including:

- Formation and meetings of the community-based Ward *Neeru* and *Nirmalya Samiti* (WNNS) to discuss and disseminate information on water-related issues.
- Establishment of the Project Site Unit in Mulbagal to assist and build capacity of the TMC in IUWM programme management.
- Conducting workshops for TMC members to disseminate information from the IUWM studies.
- Conducting regular meetings with the State-Level Co-ordination Committee, District-Level Co-ordination Committee and other partners.

OTHER INITIATIVES SUPPORTED

NFI: Arghyam has extended financial support to the National Foundation of India, New Delhi to partner Health & Development Initiative, (HDI), Cuttack, Orissa. HDI is implementing the social aspect of IUWM in two wards of the Cuttack municipality. The focus is on community-based initiatives to address the water and sanitation problems of the urban poor.

Bringing water to a city: This film on the urban water supply in Kannada and English, directed by Swati Dandekar, dissects the reasons for Bengaluru's unprecedented growth and its inability to plan and manage the city's water supply. The film screening are aimed at creating a wider dialogue to solicit the means and methods pertinent to a secure water supply for Bengaluru.

SOCIAL MOBILISATION PROCESSES UNDER IUWM

Community participation is the cornerstone of IUWM in all its technical and non-technical processes. Social mobilisation activities in 2010–2011 will focus on strengthening the Ward *Sanghas* to participate actively in the preparation of an integrated plan and implementation of field projects. This will entail articulating their individual and common needs, identifying localised solutions, as well as demand-side management responsibilities, such as water conservation and waste management.



WAY FORWARD

In 2010–2011, five projects will be undertaken in Mulbagal including rainwater harvesting in schools, revival of community toilets, construction of household toilets under the government-sponsored Integrated Low Cost Sanitation (ILCS) scheme, solid waste management, and energy efficiency improvements in pumping stations. Simultaneously, capacity building of TMC staff, strengthening of people's groups, building awareness and ownership amongst Councillors and adopting best practices are some of the key support activities that will be undertaken.



India Water Portal:
Innovating and expanding the resource base

INDIA WATER PORTAL

The India Water Portal (<http://indiawaterportal.org>) is an open-source, open-to-all, rich on-line knowledge resource base and virtual community on water receiving more than 1,200 visits on an average per day.

INDIA WATER PORTAL 2.0

The India Water Portal in its new avatar using Drupal, a content management system, allows portal users to add content directly to the website including case studies, research documents, policy critiques, campaign or event details, discussions, blogs, expert advice, and job postings. IWP was awarded the Certificate of Appreciation (Environment Category) at the NASSCOM Social Innovation Honours, 2010 in recognition of the use of web technologies to create an important network of users and for providing a larger community with access to valuable content.

Channels: In April-May 2009, the Portal conducted a comprehensive user survey to understand the expectations and perceptions of the water community on the India Water Portal. Based on the feedback, the water categories have been organised into 13 different channels: Rainwater Harvesting, Agriculture, Drinking Water, Water Bodies, Urban Water, Groundwater, Watershed Development, Wastewater, Water Quality, Water for Industry, Rivers, Climate Change and General. Each Channel retains existing features like Case Studies, Movies, Courses, Media, Data and Statistics, and Research, while introducing new sections like Downloads, News and Campaigns. Each of the 13 channels has a section called “Get Started” to introduce and orient beginners to water sector issues. Also, every content piece has been classified into three categories, namely, beginner, intermediate and expert for easier navigation.

Ask-the-Experts: This free question-and-answer service connects citizens with water experts. A total of 848 questions and about 3,200 answers have been posted on this service until March 2010.

Directory: The Portal team has added to the existing directory of water organisations, which now total 1,300. A directory of 205 water experts searchable by geography, and area of expertise has also been added.

Meteorological data: The existing 100 year (1902–2002) meteorological data for India based on the extrapolated CRU TS2.1 data set (Tyndall Centre for Climate Change Research) enables free access to the data on IWP. Arghyam’s support to the right to information (RTI) application by the South Asia Network on Dams, Rivers and People (SANDRP) helped ensure that the past 5 years of data from the India Meteorological Department (IMD) is now made public. Similarly, the Rajasthan Meteorological Data 1973–2008 (station-wise, daily rainfall data) has been converted into a downloadable format.

Notable content: The team has sourced the entire archive of the National Institute of Hydrology, a premier government research laboratory, from 2002–2007. An extensive sample of water quality in every taluka and district of the state by the Government of Karnataka in 2003 serves as an excellent source of baseline information for an understanding of the groundwater in Karnataka. Two books by Shri Anupam Mishra – *Rajasthan Ki Rajat Boonde*, and *Aaj Bhi Khare Hain Talaab* have been digitised on the portal. The results of ‘A Survey of Household Water and Sanitation (ASHWAS)’ conducted by Arghyam is available on the IWP. Greater publicity was provided to events and campaigns organised on World Water Day (March 22) by visualising these events on Google Maps.

Lost Lakes Contest: In February-March 2010, India Water Portal organised a video contest to document Bengaluru’s many tanks and lakes which have vanished with unplanned urbanisation and growth. The contest received 38 entries of short films (upto 10 minutes) in the general citizen and student categories. All the videos can be viewed at <http://indiawaterportal.org/lostlakes>

The video “*Err-bane*” truth – *Dharmabudhi Tank*, by Badekklila Pradeep and Nishant Ratnakar, on the disappearance of the tank, which is now the site of the Kempegowda Bus Station, Bengaluru, received the general category prize. The student category witnessed a tie between *Doddabommasandra lake of Vidyanayapura* by Ganesh Kathare and Ahmad Sha Azlan, and

The screenshot shows the India Water Portal website interface. At the top, there are language options (Hindi, Kannada, Conflicts, Schools, Sanitation), user actions (Why sign up, Sign Up, Login, Sign in), and a search bar. The main navigation menu includes HOME, CHANNELS, COMMUNITY, DIRECTORY, BLOG, UPLOAD, and CONTACT US. Below this, there are tabs for General, Rainwater Harvesting, Agriculture, Drinking Water, Water Bodies, and Urban Water. The left sidebar features an 'ASK THE EXPERTS' section with a question about overhead tank temperature control, a 'WATERCUBE.TV' section with a video player, and social media icons for Twitter, Facebook, YouTube, and Flickr. The main content area is divided into 'Featured', 'Latest', and 'Most Read' sections. The 'Featured' section highlights a book review of 'Water Governance in Motion' by R. Maria Saleth. The 'Videos' section shows a video titled 'Shekhar Kapur at the Voices Fro...'. Below the main content, there is a 'BULLETIN BOARD' with news items and a 'CALENDAR' with upcoming events.

SOCIAL MEDIA

We routinely add water-related content on social media platforms

like the YouTube channel **195 videos**, SlideShare **63 presentations**, **23 documents**, Flickr Channel **2,563 photographs**.

Our water updates on Twitter and Facebook are quite popular.

We have ensured integration between the water portals and these social media websites.



Mathikere – The resurrection by Mohan Krishna, Nandan S. S., Nayana R. K., Nishith Bolar and Nithin M. Thomas, which draws on the memories of local people.

World Water Day: In association with the Bangalore Water Supply and Sewerage Board (BWSSB), Arghyam organised a Rainwater Harvesting Mela on 20 March 2010 in which the major rainwater harvesting service providers in Bengaluru set up information desks. It provided a platform for people to explore various methods to implement rainwater harvesting in their homes given the impending BWSSB regulation that makes rainwater harvesting mandatory for existing buildings. The event was a huge success with capacity attendance of more than 1,500 people; it received excellent media coverage.

HINDI WATER PORTAL

The Hindi Water Portal, (<http://hindi.indiawaterportal.org>) was launched in November 2008 and has been receiving about 200 visits on an average per day. Arghyam's partner, Water Community, India, has been managing the Hindi Water Portal since its inception and won the NGO of the year award in the 'Water Education' category of the Water Awards organised by the Water Digest magazine.

The Hindi Water Portal has added more than 4,000 water stories, 1,000 books/documents, regular updates as well as new sections on MGNREGA and climate change.

The 'Ask-the-Experts' section was also started on the Hindi Portal in June-July 2009. The Hindi Portal has established itself as the leading source for all Hindi news related to the water sector in India. More than 50 news items that had appeared on the Hindi Water Portal have been picked by the mainstream media (Jagran, Amar Ujala, Raj Express, Bhaskar, Focus TV, India News, Aaj Tak – Delhi).

India International Trade Fair (IITF): The Hindi Water Portal was invited by the Ministry of Water Resources to set up a stall at the IITF Water Pavilion in November 2009, which received thousands of visitors. As part of the outreach efforts, two electronic quiz kiosks were installed at the stall, and certificates were awarded to school children.

Media training workshop on water: The Hindi Team conducted the workshop in January 2010 along with the Makkanlal Chaturvedi Journalism and Mass Communication University, Bhopal. An impact of the workshop was that a leading Hindi newspaper, Naji Duniya, began to dedicate one-full-page every week to water issues.

Radio programmes: To celebrate World Water Day in March 2010, the Hindi Water Portal created a 6-episode daily interview with water experts, which was broadcasted across 12 FM Rainbow stations (102.6 Mhz) including Delhi. The interviews were conducted on good practices in Water Management; Groundwater Management; the Sanitation Situation in India; Waterless Urinals; Rivers, Pollution and Culture; and Rivers, Dams and People.

SCHOOLS WATER PORTAL

The Schools Water Portal (<http://schools.indiawaterportal.org>) was created in January 2009 for sharing learning resources on water amongst educators, students, school management and parents. Primarily, the focus has been on providing the busy teacher with a variety of teaching aids and ideas on water education within the curriculum.

Content: The Portal team has reviewed the NCERT curriculum for all the subjects and wherever there was a mention of a water-related topic, the team has custom-created material (presentations, games, and activities, puzzles, plays, etc.) that would enhance teaching. It motivates the students to learn through projects and interesting hands-on activities. The Schools portal also produced a CD on "Children Thinking on Water" based on the 17th edition of the National Children's Science Congress, Ahmedabad in December 2009, and the Jawaharlal Nehru National Science Fair, Kolkata in September 2009. Our video captured all the water-related projects done by students and is available on the Schools Water Portal and the IWP YouTube channel.

Through a joint partnership with one of the leading textbook publishers – Goodluck, the Portal team created 16 flash cards with material from the Schools Water Portal for use in two Environment Education textbooks for Standards IX and X. School projects related to water were also incorporated into the textbooks.

Teacher training workshops: One of the challenges for the Schools Water Portal has been the teachers' lack of familiarity with computer usage. The Schools Water Portal conducted teacher training workshops in Bengaluru, Coimbatore, Dehradun, Delhi, Hyderabad, Pune and Saharanpur to acquaint the teachers with the content on the Schools Water Portal, and to discuss ways to make water learning fun.

Government recognition/support: The Ministry of Human Resource Development (MHRD) sent out a memo to the Central Board of Secondary Education (CBSE), Kendriya Vidyalaya (KV) Sangathan, Jawahar Navodaya Vidyalaya (JNV) Samiti, and Department of State Educational Research and Training (DSERTs) about the Schools Water Portal. CBSE sent out an advisory to all schools on the Schools Water Portal, recommending its use to over 8,000 schools. The KV Sangathan, apart from displaying the Schools Water Portal link on its website, has ensured that a module on the

Schools Water Portal will be included in the regular-in-service training programmes across 981 schools starting April 2010.

INDIA SANITATION PORTAL

The Sanitation Portal (<http://indiasanitationportal.org>) was conceived as a collaborative effort between several organisations in the water sector (Arghyam, WaterAid, WASH Institute, WES-Net, UNICEF, Wherever the Need, Water for People, SEI, PLAN International, Water and Sanitation Program). The Department of Drinking Water and Sanitation, Government of India had also endorsed the Sanitation Portal, through the launch at the Third South Asian Conference on Sanitation (SACOSAN-III), November 2008.

India Water Portal along with WaterAid India is working towards re-launching the portal in June 2010 with greater functionalities, contemporary technology, better design, and distribution of responsibilities.

THE MAIN FUNCTIONS OF THE WATER PORTAL

- Provide news, knowledge, applications, and data on water issues in India.
- Solve water problems through increased citizen's interaction with experts.
- Enable discussions and exchange of ideas among water-experts.
- Increase publicity for events and campaigns by water-focused organisations.



WAY FORWARD

The focus remains on deepening the community of users by increasing the number of visitors and participants of the portal. The plan is to significantly increase the content on the portal including lucid and simple content for beginners. There is also a plan to improve the functionality of the website by introducing better search engines, creating mapping and data visualisation platforms.

Taking science to the people:
Towards cost-effective and user-friendly technologies



RESEARCH & DEVELOPMENT

The Research & Development initiative at Arghyam focuses on water related processes and technologies that are low cost, efficient, and easy to use; therefore, sustainable for the benefit of a larger population.



CENTRE OF EXCELLENCE IN ECOLOGICAL SANITATION

Research on anthropogenic liquid waste (ALW): Since 2008, Arghyam, UNICEF and SEI have co-funded the Centre for Excellence in Ecological Sanitation at the University of Agricultural Sciences (UAS), Bengaluru. This Centre of Excellence was set up to evaluate anthropogenic liquid waste, i.e. human urine, as a fertiliser for crop production, its impact on soil properties; to assess cost economics as well as to develop a protocol for application. The results of the human urine application experiment were remarkable in terms of size, yield, maturity and vegetative growth of bananas, capsicum, maize, leafy vegetables and radish compared to those treated with chemical fertiliser. A combination of human urine and farmyard manure was found to be the best fertiliser for agricultural production over various combinations of chemical fertiliser, human and cow urine.

Ecological sanitation (ecosan) at the Krishi Mela: The Centre of Excellence in Ecological Sanitation organised an exhibition and demonstration on ecosan and crop production at the Krishi Mela, UAS, in November 2009. It was one of about 600 stalls visited by 50,000 farmers from different districts of Karnataka. The stall displayed the ecosan toilet pan and compost. More importantly, the farmers visited a demonstration plot of 1 acre with 6 different crops grown by applying different doses of human urine, combinations of human urine with cow urine, chemical fertiliser and farm yard manure. This led to an increased interest towards ecosan amongst farmers.

Ecosan pit opening: Ecosan toilets were constructed as part of an Arghyam-supported Integrated Domestic Water Management project implemented by MYRADA, an NGO in Kolar district. After a 6–12 month compost storage period, some pits were opened in Kongarahalli village in February 2010 to harvest the compost. The pit opening provided the villagers

The focus for 2009–2010 areas were ecological sanitation (ecosan), which explores the value of human urine and composted human waste as fertiliser, as well as domestic wastewater treatment.



an opportunity to interact with ecosan experts from UAS to understand the scientific knowledge and the procedure for using human urine and ecosan compost in agriculture.

Consultation on Sustainable Sanitation, Bengaluru: Dr. Mihir Shah, Member, Planning Commission of India, requested Arghyam to organise a consultation to learn from civil society experiences on sustainable sanitation in order to solicit inputs for the mid-term review of the Eleventh Five-Year Plan. The consultation was organised with the participation of representatives from various government, and non-governmental organisations. A report was submitted to the Planning Commission which formed a part of its Mid-Term Appraisal (MTA) report.

ACTION RESEARCH ON SOIL BIOTECHNOLOGY

Soil Biotechnology (SBT), an invention of Professor H.S. Shankar et al, IIT, Mumbai, is a wastewater treatment process, which combines biological metabolism and the geological process of soil formation. Arghyam is piloting a SBT project with a capacity of 15 kilolitres per day (KLD) in ACCEPT Society, an AIDS care hospice in Bengaluru. The objective is to conduct a detailed independent evaluation of the SBT to assess its social, technological and environmental feasibility in an urban set up.

ASHWAS:
Catalysing change



COMMUNICATIONS & ADVOCACY

The Communications & Advocacy team was set up in 2009 to advocate Arghyam's philosophy and grassroots models so as to influence policies and practices at the state as well as national levels in the water sector.



ASHWAS

Background: Arghyam spearheaded A Survey of Household Water and Sanitation (ASHWAS) in partnership with 15 NGOs involving more than 300 people over 40 days, between December 2008 and January 2009. ASHWAS was conducted across 17,200 households across 172 gram panchayats in 28 districts of Karnataka. The survey reflected upon the state of water supply, sanitation, health and hygiene, and governance issues.

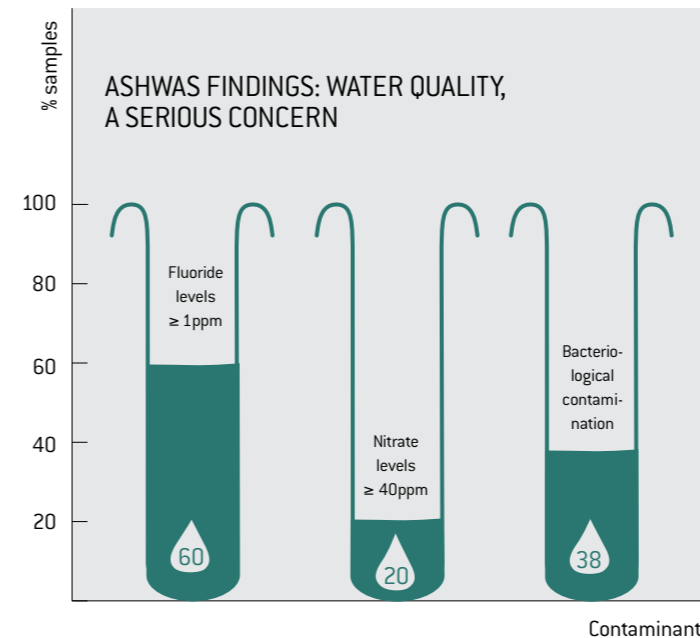
The key objectives of ASHWAS were threefold:

- To generate structured data that could be analysed for assessing the ground-level situation.

While the team was able to take ASHWAS to its logical end, on the advocacy front it has initiated small but firm steps to ensure engagement with the government on policy matters.



- To collate and present data in a simple manner and take it back to the people so as to present the ground realities and facilitate discussion on solutions.
- To collate, analyse and take data to the policy makers so as to address the information needs at that level.



Thus, ASHWAS was designed to deepen the discourse and catalyse action at various levels to address watsan problems.

Closing the loop: The survey findings were presented in a State report including a separate section for each of the 28 districts. It was released by Shri H. R. Bharadwaj, Governor of Karnataka on 20 July 2009. In line with Arghyam's belief in community participation and ownership, the results of the survey were taken back to the participating *gram panchayats* for which a set of customised *gram panchayat* reports were prepared in Kannada. After rigorous training on information presentation and communication, Arghyam along with its partners organised dissemination and action planning meetings in 150 out of 172 *gram panchayats* from September 2009 to January 2010. This process was also aimed at strengthening the capacity and skills of individuals and institutions to use the survey as a tool to enhance the understanding of watsan issues, and to help people to see themselves as part of a solution.

The issues highlighted by the report are very delicate. Karnataka was one of the first to introduce the Panchayat Raj system. State governments are not happy to part with powers and give them to gram panchayats. But gram panchayats are the best to implement such programmes as they are the ones facing the problems.

HR Bharadwaj, the Governor of Karnataka

This survey, by an independent agency, gives the government a different perspective – from the user's point of view. The government will act on it.

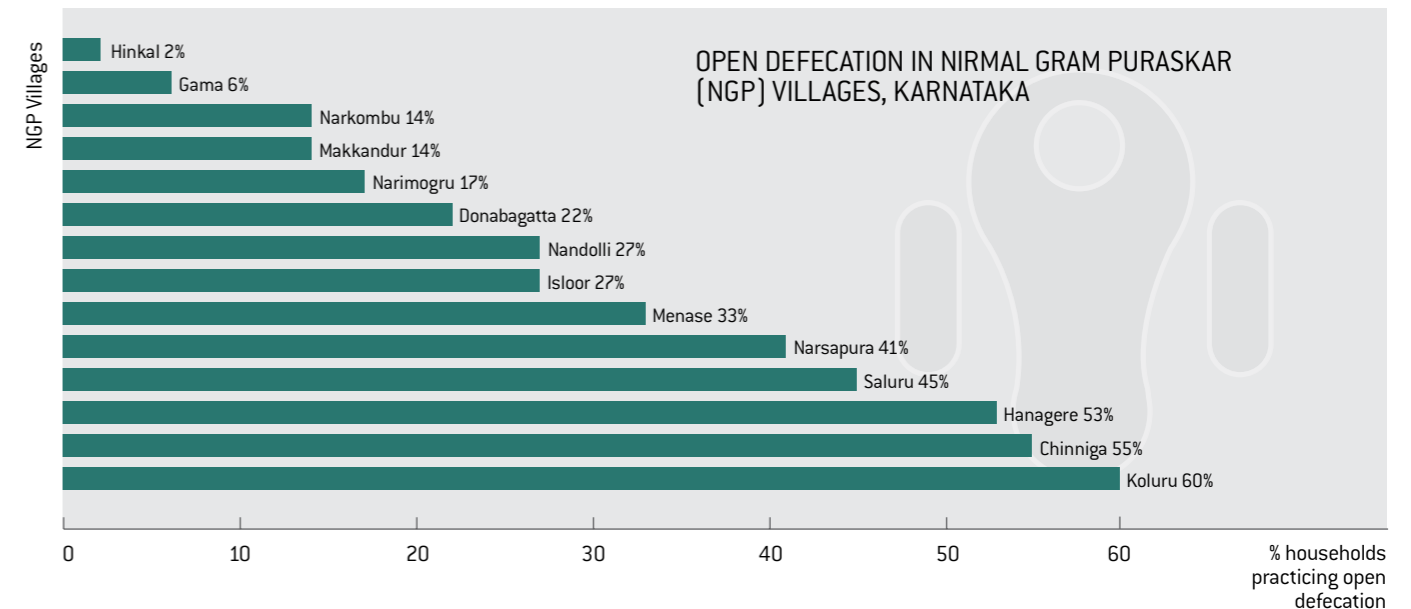
Ravi Kumar, Secretary, Rural Development and Panchayat Raj Department, Karnataka

Men are not worried about our problems with respect to defecating in the open. We never discussed these things collectively. Our SHG is ready to take things forward and mobilise funds.

K Manjullamma, Anganwadi staff and SHG member, Kurubarahalli gram panchayat, Chitradurga

We have had many surveys in the past. At least ASHWAS has come back to us to discuss the results. ASHWAS provided us not only the basic information but also a forum to discuss and plan. If we think and act collectively we can really make a difference.

Nadaf, President, Naregal gram panchayat, Haveri



During the meetings, ASHWAS gram panchayat report cards in Kannada were formally handed over to the panchayats, the key issues discussed and watsan action plans drawn up (see Box: How gram panchayats prioritised action). Focused discussion with women and school children formed an essential part of the meetings. The village-level action plans were consolidated and submitted to the Rural Development and Panchayat Raj (RDPR) department on 24 March 2010, thereby, closing the feedback loop. The meetings in 22 of the gram panchayats were cancelled due to the devastation by floods in North Karnataka. Arghyam is working with NGO partners in some of the affected areas to support flood relief efforts.

KEY FINDINGS OF ASHWAS

ASHWAS findings reflect serious issues regarding source sustainability, reliability of water supply, quality of water accessed by people and its inevitable impact on public health. The government watsan service delivery systems fail/falter in the absence of effective decentralisation and capacity building of the gram panchayats.

The reach of the water delivery system, in line with the focus on coverage by the Government of India, is better than many other states in the country. However, water quality and water management systems need urgent attention.

Water supply: 87% of the Karnataka's rural water supply is groundwater dependent. Lack of recharge and source protection has jeopardised source sustainability due to source depletion and contamination.

Water quality: About 60% of water samples tested exceeded 1 mg/l (milligrams per litre) as per the Bureau of Indian Standard for fluoride, 38% had bacteriological contamination and 20% had nitrate levels higher than 40 mg/l. However, 58% respondents were fully satisfied with the water quality indicating low levels of awareness. ASHWAS found that only 42% of the gram panchayats received water testing kits and of this only 49% used it (See Graph: ASHWAS Findings: Water quality, a serious concern).

Sanitation: About 72% of the populace in rural Karnataka still practice open-defecation [OD] (98% in Raichur district). Only 13% of low-income households have access to toilets as against 56% of high-income households. Affordability (59%) and space (29%) emerged as the two major reasons for the high OD rates.

Only 42% rural population had access to drains and most of these were not cleaned regularly.

The *Nirmal Gram Puraskar* [NGP] is awarded by the Government of India to OD free villages with presence of toilets, drains and clean environment. However, usage of toilets emerged as a challenge; 14 NGP-awarded villages that were surveyed reported open defecation [see Graph: Open defecation in Nirmal Gram Puraskar Villages, Karnataka].

Women's issues: Menstrual hygiene emerged as a key issue with 94% of rural women reporting the use of a cloth for menstrual hygiene. There is a complete absence of any menstrual hygiene facilities for adolescent girls at schools.

Governance: *Gram panchayats* are responsible for the maintenance of water and sanitation systems and services but lack the capacity to do so. This is reflected in the ASHWAS findings that 73% of disruption in water supply is due to operation and maintenance problems, 50% of the committees related to water, sanitation, health and hygiene existed only on paper. Furthermore, there is a lack of awareness and attention to water quality testing.

HOW THE *GRAM PANCHAYATS* PRIORITISED ACTION

Water: 37% actions for improving water availability focus on new systems; 35% on recharge measures, rainwater harvesting systems and repairs. 23% actions focus on water testing and purification.

Sanitation: Coupled with intensive efforts of the TSC, 41% of actions by *gram panchayats* are related to sanitation.

Governance: Several *gram panchayats* sought awareness-raising programmes for their citizens and training for their members so as to facilitate behaviour change and better management of watsan systems.



Release of ASHWAS Report

In November 2009, Arghyam received the Excellence in Information Integrity (EII) Award (bronze) in the non-profit category for ASHWAS. The award has been instituted by the Information Integrity Coalition (IIC) for accuracy, consistency and reliability of the information content, and associated processes, systems and environment.



POLICY ADVOCACY

There was greater engagement with the Government both at the central and state levels. A report titled *Step by Step: Achieving Sustainable Sanitation* compiled by Arghyam in partnership with field level partners to assess the time, human and financial resources required to infuse sustainability into the sanitation campaign was submitted to the Planning Commission of India in December 2009.

This year, 2009–2010, different arms of the Government of India – Department of Drinking Water and Sanitation (DDWS) the Planning Commission and the Thirteenth Finance Commission sought inputs from Arghyam. Several Parliamentarians also approached Arghyam for knowledge inputs. Arghyam was requested by the Department of Drinking Water and Sanitation to verify a sample of Nirmal Gram Puraskar-nominated villages in Karnataka.

Team Arghyam participated in several conferences on watsan issues such as the *National Workshop and CSO meeting on Independent Regulatory Authorities and Related Institutional Reforms in the Indian Water Sector*, the *National Conference on Urban Water Management*, and the *International Conference on Water Harvesting, Storage and Conservation* to share its experiences.

ARGHYAM'S PRESENCE IN POLICY-MAKING

Several of Arghyam's senior members have been invited onto committees on water and sanitation by the Government of India. Sunita Nadhamuni, CEO, Arghyam and Ravi Narayanan, Advisor, Arghyam were invited to be a part of the Advisory Committee on monitoring and evaluation constituted by DDWS. Arghyam Advisor, S. Vishwanath is on the Subcommittee – Interventional Strategy Building for *Winning, Augmentation and Renovation (WAR)* for water programme of the Department of Science and Technology, Government of India. Arghyam is also on the Steering Group on Water and Climate Change, Asia Pacific Water Forum.



WAY FORWARD

Scaling-up ASHWAS: Civil society and policy makers are beginning to appreciate the positive impact of citizens' audits and assessments such as ASHWAS, which allow for a nuanced understanding of people's satisfaction levels about public services, their survival or coping strategies and the quality they can expect from public service providers.

Other civil society groups and State governments have expressed interest in undertaking similar studies. Therefore, Arghyam has prepared a tool kit designed as a how-to manual for conducting ASHWAS. As a continuation of ASHWAS, Arghyam will also explore capacity building of *panchayati raj* institutions in watsan.

Dissemination of learning: Arghyam is poised to share its learning from tried and tested watsan models, which it has supported through a series of theme-based learning documents, brochures and public service advertisements. Moreover, capacity building of GOs/NGOs, researchers, media is on the anvil to expose them to alternate paradigms of sustainable water management.

Arghyam plans to proactively participate in policy debates, meetings, conduct policy reviews, prepare position papers and presentations so as to communicate and advocate on the basis of its learning.



Application of technology in ASHWAS:
Translating data into usable information



TECHNOLOGY

The Technology team explores and develops appropriate information technology tools that are usable with the communities and the groups with whom Arghyam works to make the sector interventions more effective.

ASHWAS

Technology played a significant role in this citizens' survey on water and sanitation. The team was involved in ensuring quality data, providing the right database design for appropriate analysis and dealing with the operational aspects of co-ordinating with partners, volunteers and the Arghyam team.

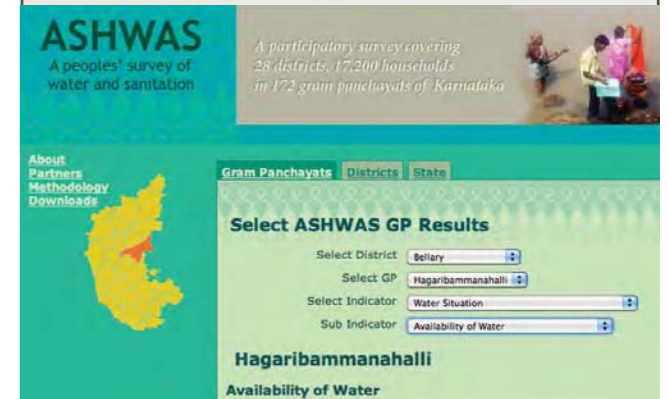
The ease and flexibility of data extraction was considered paramount since the experts need to mine the data for which two customised multi-user software applications were developed using PHP and POSTGRES along with analytical software.

Since every *gram panchayat* surveyed was to be provided a report, the Technology team used collaboration tools like Google Docs and experimented with Google SMS channels to enable the volunteers, partners and the Arghyam team to work together. The results were made available to the public through an interactive interface on <http://ashwas.indiawaterportal.org/> so that interested citizens could view the report based on their desired parameter for a specific *gram panchayat* or district in Karnataka.

RESEARCH ON IT FOR THE WATER SECTOR

The Technology team initiated research on the existing and prospective role of Information Technology in the water sector in the areas of information, operation and planning. An attempt was made to map and analyse technology tools against users and its possible applications in the water sector. An output of this research was a document with high-level recommendations on the potential of IT in the water sector.

In 2009–2010, the team engaged in technology development for ASHWAS and research on IT for the water and sanitation sector.



KNOWLEDGE MANAGEMENT

In addition to what is seen on the India Water Portal, the Grants team gathers a lot of knowledge from their partners and projects. Knowledge-sharing within Arghyam required knowledge management. Hence, "OpenKM" was implemented to enable the staff to easily share/search for documents with proper versioning and tagging. The Technology team sought to enhance Arghyam staff productivity through facilities such as the intranet, contact database utility, and setting up of Tally Multi User Client Server Access, etc.

CAPACITY BUILDING

Arghyam staff was trained on off-the-shelf as well as custom implemented software applications, specifically, ArcGIS and OpenKM.

FINANCE & ADMINISTRATION

AUDITORS' REPORT

M/s. Singhvi,
Dev & Unni
Chartered Accountants
6th Floor, Trade Centre,
29/4, Race Course Road,
Bangalore 560 001,
Karnataka.

To the trustees of Arghyam, Bangalore,

1. We have audited the attached Balance Sheet of Arghyam as at March 31, 2010, the Income & Expenditure Account and the Receipts & Payments Account for the year ended on that date annexed thereto. These financial statements are the responsibility of the trustees. Our responsibility is to express an opinion on these financial statements based on our audit.

2. We conducted our audit in accordance with auditing standards generally accepted in India. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by trustees, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

3. Further to the above, we report that:

- We have obtained all the information and explanations which to the best of our knowledge and belief, were necessary for the purpose of our audit;
- In our opinion, proper books of account as required by law have been kept by the Trust so far as appears from our examination of books;
- The Balance Sheet, the Income & Expenditure Account and the Receipts & Payments Account dealt with by this report are in agreement with the books of account;
- In our opinion, the Income & Expenditure Account and Balance Sheet comply with the applicable Accounting Standards; and
- In our opinion and to the best of our information and according to the explanations given to us, the said Balance Sheet and the Income & Expenditure Account and the Receipts & Payments Account, give a true and fair view in conformity with the accounting principles generally accepted in India:
 - in the case of the Balance Sheet, of the state of affairs of the Trust as at March 31, 2010;
 - in the case of the Income & Expenditure Account, of the excess of income over expenditure for the year ended March 31, 2010; and
 - in the case of the Receipts & Payments Account of the receipts and payments during the year ended March 31, 2010.

Bangalore

for Singhvi, Dev & Unni
Chartered Accountants
Firm Registration No.: 003867S
SD/- Parthasarathy Sudarsanam
Partner M. No. 205179

BALANCE SHEET AS AT MARCH 31, 2010

(Amount in Rupees)

| Particulars | Sch No. | Amount –As at March 31, 2010 | Amount – As at March 31, 2009 |
|---------------------------------------|---------|------------------------------|-------------------------------|
| I. SOURCES OF FUNDS | | | |
| 1. Corpus Fund | 1 | 1,559,684,988 | 1,117,528,588 |
| 2. Current Liabilities and Provisions | | | |
| a. Current Liabilities | 2 | 3,881,344 | 223,780 |
| b. Provisions | 3 | 10,512 | 108,924 |
| TOTAL | | 1,563,576,844 | 1,117,861,292 |
| II. APPLICATION OF FUNDS | | | |
| 1. Fixed Assets | 4 | 2,101,772 | 1,297,754 |
| 2. Investments | 5 | 1,447,393,098 | 974,062,254 |
| 3. Current assets, loans and advances | | | |
| a. Cash and bank balances | 6 | 83,834,877 | 126,796,483 |
| b. Other Current Assets | 7 | 20,632,761 | 14,320,522 |
| c. Loans and advances | 8 | 9,614,335 | 1,384,278 |
| TOTAL | | 1,563,576,844 | 1,117,861,292 |

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED MARCH 31, 2010

(Amount in Rupees)

| Particulars | Sch No. | Year ended March 31, 2010 Amount | Year ended March 31, 2009 Amount |
|-------------------------------------------------|---------|----------------------------------|----------------------------------|
| INCOME | | | |
| Interest Earned | 9 | 115,061,749 | 111,514,288 |
| Other Income | 10 | 501,451 | 24,137 |
| Capital Gain on Redemption of Mutual Fund Units | | - | 1,589,998 |
| TOTAL (A) | | 115,563,200 | 113,128,423 |
| EXPENDITURE | | | |
| Administrative Expenses | 11 | 4,471,427 | 3,161,376 |
| Depreciation | 4 | 928,129 | 469,928 |
| Core Grants | 12 | - | 10,190,000 |
| Rural grants | 13 | 62,761,589 | 35,531,385 |
| India Water Portal | 14 | 8,207,905 | 9,224,249 |
| Communication and Advocacy | 15 | 4,876,992 | 3,259,059 |
| ASHWAS Survey Grants | 16 | 196,935 | 5,235,479 |
| Urban Water Initiative | 17 | 21,194,490 | 9,580,752 |
| Administrative Expenses | 22 | 6,020,558 | 2,872,235 |
| Research and Development | 18 | 1,961,629 | 319,090 |
| Technology | 19 | 4,036,450 | - |
| TOTAL (B) | | 108,635,545 | 76,971,318 |
| SURPLUS (A-B) | | 6,927,655 | 36,157,105 |

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED MARCH 31, 2010

(Amount in Rupees)

| Receipts | Sch No. | March 31, 2010 Amount | March 31, 2009 Amount |
|-------------------------------------------------|---------|-----------------------|-----------------------|
| BALANCE BROUGHT FORWARD: | | | |
| CASH & BANK BALANCES | | | |
| Cash on Hand | 6 | 19,341 | 12,490 |
| Citibank SB Account | 6 | 18,487,748 | 24,335,665 |
| Citibank CA - Administration | 6 | 5,463,690 | (91,679) |
| Kotak Mahindra Bank Current Account | 6 | 99 | - |
| ICICI Bank SB Account | 6 | 102,825,605 | 1,589,453 |
| Investments | 5 | 974,062,254 | 1,053,727,395 |
| Corpus Fund received | 1 | 435,228,744 | - |
| Interest Earned | 20 | 105,752,615 | 97,583,739 |
| Capital Gain on Redemption of Mutual Fund Units | - | - | 1,589,998 |
| Other Income | 21 | 1,451 | 24,137 |
| Income Tax refund received | | 13,809 | - |
| Receipt of rent deposit | | 361,313 | - |
| TOTAL (A) | | 1,642,216,670 | 1,178,771,198 |
| Payments | | | |
| Core Grants | 12 | - | 10,190,000 |
| Rural Grants | 13 | 62,761,589 | 35,531,385 |
| India Water Portal | 14 | 8,207,905 | 9,224,249 |
| Communication and Advocacy | 15 | 4,876,992 | 3,259,059 |
| ASHWAS Survey Grants | 16 | 196,935 | 5,235,479 |
| Urban Water Initiative | 17 | 21,194,490 | 9,580,752 |
| Administrative Expenses | 22 | 6,020,558 | 2,872,235 |
| Research and Development | 18 | 1,961,629 | 319,090 |
| Technology | 19 | 4,036,450 | - |
| Fixed assets | 4 | 1,732,147 | 700,213 |
| Rental deposit | | - | 1,000,000 |
| BALANCE CARRIED FORWARD: | | | |
| Cash on Hand | 6 | 2,056 | 19,341 |
| Citibank SB Account | 6 | 69,119,008 | 18,487,748 |
| Citibank CA - Administration | 6 | 814,323 | 5,463,690 |
| Kotak Mahindra Bank Current Account | 6 | 287,405 | 99 |
| ICICI Bank SB Account | 6 | 13,612,086 | 102,825,605 |
| Investments | 5 | 1,447,393,098 | 974,062,254 |
| TOTAL (B) | | 1,642,216,670 | 1,178,771,198 |

ARGHYAM TEAM

Chairperson: **Rohini Nilekani**

CEO: **Sunita Nadhamuni**

Trustees: **Renuka Raja Rao, Nandita Chandavarkar, Anuradha Hegde, Janhavi Nilekani, Sriram Raghavan, Narayan Ramachandran**

Advisors: **Ravi Narayanan, Thippeswamy M N, Vishwanath S**



31 employees
a 100% growth from last year

Last row (left to right): **Ayan Biswas, Deepak Menon, Mohanasundar Radhakrishnan,**

Third row (left to right): **Srikanta Prasanna, Rahul Bakare, Suresh Ponnappa, Vijay Krishna, Manjunatha Prasad, Niteen Shastri**

Second row (left to right): **Naveen, K. Nelson Royal, Nirmala Janardhan, Sunita Nadhamuni, Gopal Kulkarni, Shweta Sridharan, Reena Pinto, Sonali Srivastava, Habeeb Noor**

First row (left to right): **Janhavi Nilekani, Amrtha Kasturi Rangan, Rohini Nilekani, Karthik, Lingaraju Gungadi, K.J. Parmeswarappa, Praveena Sridhar, Aparna Natraj, Geetha Rajagopal, Gouri Tikota, Nagasreenivas K.**

Not in photo: **Amitangshu Acharya, Anitha Parthiban, Arun Patre, Mrinalini Goswamy, Rashmi Gopal, Suresh Babu**





ARGHYAM

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<http://indiasanitationportal.org>
<http://schools.indiawaterportal.org>

