



In this issue –

- Message from Chairperson
- Water Mission Activities
- Article
- Bulletin Board
- Water Data
- Sector Report

Message from Chairperson, FICCI Water Mission

I am happy to share with you the third newsletter of FICCI Water Mission. This monthly newsletter will give you an update on the Mission's work and developments in the water sector.

Mr. Harish Rawat has taken over as the new Minister for Water Resources. We welcome Mr. Rawat and hope that the new National Water Policy will be finalised under his leadership. We are eagerly awaiting the creation of the Bureau of Water Use Efficiency by the Ministry.

The newsletter contains an update of major news items relating to the water sector, important sectoral reports and water data. We hope that you find the newsletter useful. The secretariat looks forward to your comments and suggestions.

Naina Lal Kidwai

President – Elect, FICCI

Country Head – HSBC India and Director – HSBC Asia Pacific

Water Mission Activities

Alliance for Water Stewardship-Water Stewardship Standards Stakeholder Meeting

FICCI Water Mission, Centre for Responsible Business (CRB) & WWF-India organised the India consultation meeting on October 18, 2012. Mr. Adrian Sym, Executive Director of Alliance for Water Stewardship (AWS) presented the International Water Stewardship Standard for consultation.

The objective of the session was to share the International Water Stewardship Standard (IWSS) with a select group representing different sectors of the Indian industry, civil society organisations, legal and

academic institutions and eminent professionals working in the water sector. This was the first consultation being organized in India to get feedback on the IWSS. The International Water Stewardship Standard is intended to provide water stewards with an approach for evaluating existing processes and performances within their sites (or facilities) and watersheds, and ensuring that responsible water stewardship actions are taking place.

Article: Adopting water use efficiency: a step forward in achieving Water Stewardship

Dr. Manoj K M Chaturvedi, Hindustan Construction Company Ltd.

Water is one of the most indispensable of all natural resources. Not only is it vital for the survival of human beings, the scarcity of water has a significant impact on our economic development and biological diversity. Nations across the world including India have recently been facing the challenge of rapidly growing water demands, driven by an increased population and economic growth, linked to urbanization, and industrialization. Further, it is important to note that the prevailing water scarcity is not only a result of quantitative or qualitative scarcity, but also a consequence of inefficient use and poor water management, which has also been recognized in the draft India's Water Policy (2012).

It is imperative now for industries to adopt and practice water use efficiency within their fence. Further, they must also contribute and extend support to other stakeholders around their fence if not beyond its fence to achieve absolute water efficiency. Reliable and adequate access to water is critical for businesses and their surrounding communities. Water efficiency measures must be viewed holistically within a business' strategic planning. Businesses that use water more efficiently now will have a competitive advantage over businesses that choose to wait. Optimizing facility water use means more than conducting an in-plant study and preparing a report. A successful program must prioritize needs, set well-informed goals, establish current performance minimums and carefully plan a course for action. There could be several ways to achieve water use efficiency within the fence of a given industry; some of them are listed below:

- Identifying and eliminating wastage (such as leaks) and inefficient processes (such as continual spray devices on stop-start production lines): This may be the most low cost area for water savings, as it involves minimal capital outlay. Savings can be made through implementing procedural changes, such as cleaning plant areas with brooms rather than water.

- Changing processes and equipment: A retrofit of key plant equipment may increase efficiency. Alternatively, upgrades to more efficient models can be factored in to planned maintenance and replacement schedules.
- Recycling and Reusing treated wastewater: This option may improve the reliability of supply, whilst reducing trade waste charges and associated environmental risks.

Out of aforementioned three suggested measures, equipment (and/or process) changes may be viewed as a 'permanent fix' to achieve water efficiency. Changing employee behaviours, such as an operating procedure, may be viewed as a quick and inexpensive way to achieve similar savings without up-front capital expense. In reality, both the technical and human side of water management is important. Consistent training and awareness in combination with proper tools and equipment have potential to achieve more permanent water savings.

Under the present circumstances, wherever there is water scarcity, it is essential to go for recycling of treated industrial effluents. Recycling or reuse of industrial wastewater is possible through adoption of preventing approaches i.e. instead of creating a problem and then looking for a solution to it, preventive measures can be applied at each production stage to minimize the generation of wastewater. Segregation of wastewater streams is one of the commonly used preventive strategies for achieving efficient treatment of effluent aimed at recycle and reuse. For example, in the textile industry, many complex processes are carried out to prepare cloth from cotton. Each process generates its own kind of effluent with varying quantity and quality. If all these streams are mixed together, then treatment of this mixed effluent becomes difficult. However, if proper segregation, considering the quality parameters, is done then treatment of these streams can be done quite efficiently. Segregated streams can be treated with different treatment strategies and treated effluent can be used for various purposes. The treated effluent with some biological treatment can be further treated with advanced tertiary process such as reverse osmosis and this water can be very easily recycled for preparation of dyes, washing or any other suitable textile processing.

Although, in India as on today, there is a growing awareness of the strategic importance of water, the number of industries across the country that manage water in a systemic and holistic way is limited. Water management in the majority of industries is limited to ensuring the provision of water. In some instances there are efforts to control or treat effluents and some responsible business go beyond the convention and adopt absolute water use efficiency. However, in most of the cases where water efficiency

efforts are implemented just for name sake, they tend to be unorganized and ad hoc, often leading to sub-optimal results. These disappointing results may make the management more inclined to withhold its support for any future efficiency projects. Potential exists within the industrial sector to substantially boost water productivity provided it is being adopted / guided by an adequate mechanism.

Enhancing Water Use Efficiency: Example of Hindustan Construction Company Ltd. (HCC).

Hindustan Construction Company Ltd (HCC) was the first Indian Company to endorse the United Nations Global Compact (UNGC)'s 'The CEO Water Mandate.' HCC has adopted a rigorous, company-wide framework for improving water resource management and has achieved 37% efficiency in water usage across its construction project sites. At HCC, we identify and implement water conservation interventions through a dedicated team responsible for carrying out the company's water management commitments. Water experts and practitioners, at HCC's headquarters in Mumbai, work with a designated point person at each project site – a 'water champion' – to assess water impact; conduct technical, social, and cost analysis of feasible water interventions; agree on measures to be implemented; and monitor and evaluate progress.

The recent UN report entitled 'Business & Climate Change Adaptation: Toward Resilient Companies & Communities', released by the UNGC and UNEP in June 2012 at the Rio+20 conferences, highlights HCC's efforts towards water neutrality and focuses on two of HCC's projects, the 'strategic oil storage cavern project' in Visakhapatnam and Delhi-Faridabad Elevated Expressway. These examples illustrate how HCC has put its water stewardship commitments into practice.

Besides, a number of other water initiatives have been undertaken at HCC's projects sites across India and also overseas under the aegis of the CEO Water Mandate. Details of the same can be found in HCC's Communication on Progress (COPs) on Water for 2009, 2010, 2011 and 2012 at www.hccindia.com

Bulletin Board

-  **Water availability, NWP adoption priority areas: Harish Rawat** - India's new Union Water Resources Minister Harish Rawat has said he will prioritize an increase in availability of water, promotion of conservation and implementation of the National Water Policy 2012 - <http://www.indiawaterreview.in/Story/News/water-availability-nwp-adoption-priority-areas-harish-rawat/931/1>

- 💧 **Delhi Jal Board sanctions renovation of Chandrawal water plant-** Delhi Jal Board today approved renovation and reconstruction of the water supply system of the city's oldest water treatment plant at Chandrawal with the help of Japanese funds to meet the Master Plan 2021 projections. Japan International Co-operation Agency (JICA) is providing official development assistance (ODA) loan for the renovation work - <http://www.business-standard.com/generalnews/news/djb-sanctions-renovationchandrawal-water-plant/72953/>

- 💧 **Presence of high arsenic level confirmed in groundwater of Punjab** - The Central Ground Water Board confirmed the presence of high level of arsenic in the subsoil water in some cancer-affected areas of Punjab. The amount of arsenic found in subsoil water goes beyond the permissible limit fixed by the World Health Organisation (WHO). Arsenic, a poisonous heavy metal element is the reasons behind the rapid spread of cancer in the Punjab, arsenic in water is one of the major causes for abnormal cell growth in human body - <http://www.punjabnewslines.com/content/presence-high-arsenic-level-confirmed-groundwater-punjab/24247>

- 💧 **Saving urban water bodies** - The Union Urban Development Ministry has constituted a working group to suggest ways for the preservation of water bodies in the urban areas. Rapid disappearance of water bodies from the urban landscape has sounded an alarm vis-à-vis water shortfall and has also put a considerable strain on States' spending to meet the demand for water - <http://www.thehindu.com/todays-paper/tp-national/tp-newdelhi/saving-urban-water-bodies/article4011668.ece>

- 💧 **Centre proposes Brahmaputra River Valley Authority** - The Centre has proposed setting up of Brahmaputra River Valley Authority (BRVA) in place of Brahmaputra Board to deal with water management, flood and related issues in the north eastern region, Assam Chief Minister Tarun Gogoi said today - <http://www.thehindubusinessline.com/industry-and-economy/government-and-policy/article3951567.ece>

- 💧 **Open drains to make way for eco corridors** – The Delhi government has plans to convert several of the city's larger drains into eco-corridors: areas that will be used extensively as non-motorized stretches and connect colonies to the BRT corridor, Metro stations and bus stops. The non-motorized transportation (NMT) eco-corridor project will be incorporated into DDA's master plan and has been prepared by UTTIPEC - http://articles.timesofindia.indiatimes.com/2012-10-28/delhi/34780163_1_brt-corridor-open-drains-colonies

Water Data

India has 1,666,075 rural habitations in the country, out of which 104,160 habitations are impacted with water quality problems. With the increasing use of groundwater, water quality problems are getting manifested across regions. The major contaminants impacting water quality and the affected states are depicted below:

Contamination	Total number of rural habitations affected	Total number of states affected	Major affected States
Fluoride	17,986	19	Rajasthan, Karnataka, Bihar, Madhya Pradesh, West Bengal
Arsenic	4,314	7	West Bengal, Assam, Bihar
Iron	56,144	21	Orissa, Assam, Bihar, Chhattisgarh, Tripura
Salinity	22,958	16	Rajasthan, Orissa, Karnataka, Uttar Pradesh, West Bengal
Nitrate	2,758	11	Karnataka, Rajasthan, Maharashtra, Gujarat

Data Source: Ministry of Drinking Water and Sanitation –data accessed on Nov 05, 2012

Sector Report

Water Scarcity: A dive into global reporting trends –

The report by KPMG entitled Sustainable Insight explore how the world's major businesses are setting out their approaches to water scarcity via their key communication vehicles on corporate responsibility (CR) and sustainability. The report investigate what companies are reporting on and – sometimes more importantly – what they are not reporting on, and we draw out significant variances between sectors and geographic regions. The report has some interesting data on industries that are most advanced in their understanding of water as a business risks.

Download the report - <http://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/sustainable-insight/Pages/water-scarcity.aspx>

Comments/ queries can be address to –

Romit Sen, Senior Assistant Director, FICCI Water Mission

Email: romit.sen@ficci.com / Tel: 011-23487252