



CASE STUDY IMPLEMENTING THE AWS STANDARD

ITC LIMITED
PSPD, UNIT - KOVAI
TAMIL NADU, INDIA

CERTIFIED AS WATER
STEWARDSHIP LEADER

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INTRODUCTION

The Alliance for Water Stewardship (AWS)¹ is a global membership collaboration comprising businesses, NGOs and the public sector.

AWS members contribute to the sustainability of local water-resources through their adoption and promotion of a universal framework for the sustainable use of water – the International Water Stewardship Standard, or AWS Standard – that drives, recognizes and rewards good water stewardship performance.

AWS defines water stewardship as the use of water that is socially and culturally equitable, environmentally sustainable and economically beneficial, achieved through a stakeholder-inclusive process that includes both site and catchment-based actions.

AWS works on three fundamental building blocks of water stewardship:

1. **The AWS Standard** is globally recognised and respected as defining best practice in collaborative and catchment-focused water use. The Standard is being widely used by major companies to help them address water risks and seize opportunities to build a sustainable future. Independent third-party verification and multi-stakeholder processes ensure that the Standard provides the 'safe place' to strengthen relationships and build trust between competing water users. Figure 1 below illustrates the five steps of the AWS Standard 2.0 and the five outputs of the implementation of the AWS Standard.

2. **AWS Membership** connects progressive organisations from all sectors in advancing water stewardship and enables pre-competitive collaborations to flourish at different levels (technical, conceptual and practical). AWS members are seeking a more structured way to engage with water stewardship in their country.

3. **AWS Global Network** is a multi-stakeholder platform to engage different interests and advance water stewardship. The India Water Stewardship Network (IWSN) is already in place and enables a direct link between India and global water stewardship best practices.

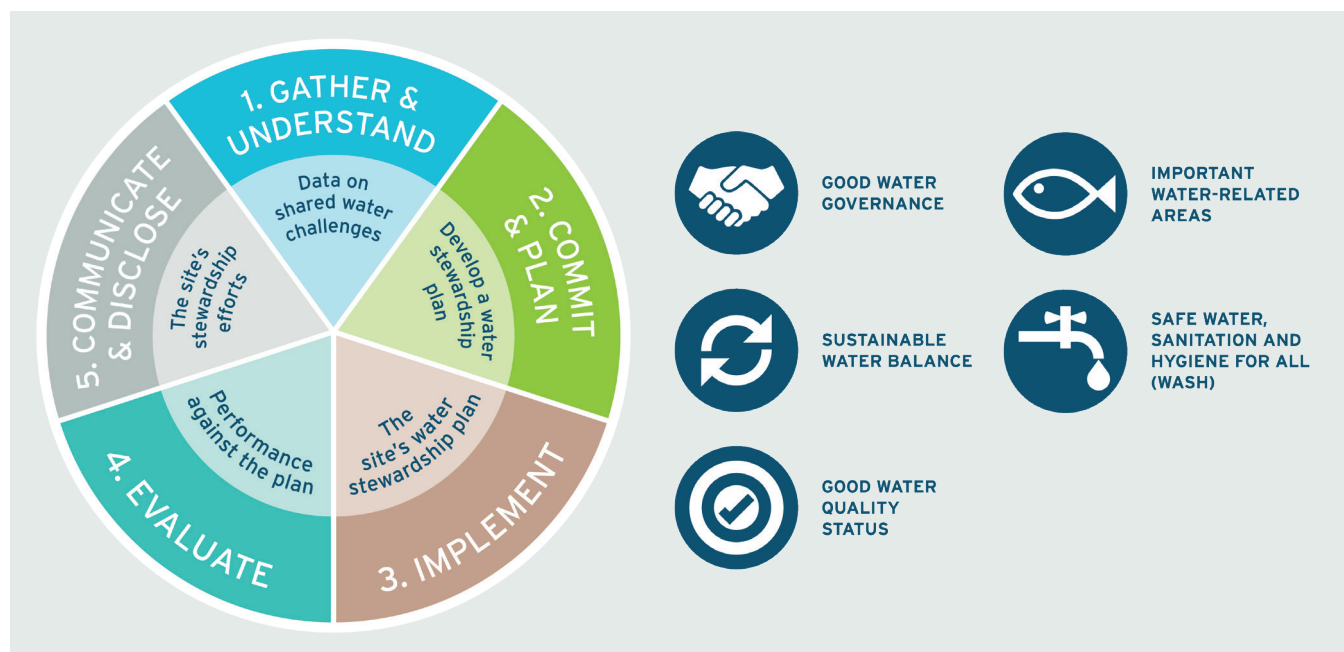


Figure 1. AWS Standard V2.0

¹ a4ws.org

OVERVIEW

ITC Limited² is one of India's leading private sector companies with a market capitalization of 50 billion USD and Gross Sales of 10.8 billion USD.

The organization has a diversified presence in Fast-Moving Consumer Goods (FMCG), Hotels, Packaging, Paperboards and Specialty Papers, and Agri-Business. It is one of the largest companies in the world to be carbon, water and solid waste recycling positive for over a decade.³

ITC has been engaged with AWS since its inception. Mr. Sanjib Kumar Bezbaroa – VP, Corporate Environment, Health & Safety at ITC was part of the AWS International Standard Development Committee that developed the AWS Standard 1.0 between 2012 and 2014, after which ITC became an AWS Member.

These early engagements with AWS acted as a driver for ITC to commit to water stewardship and adopt the AWS Standard at two of its high-water risk sites - the Paperboards & Specialty Papers Division (PSPD) factory in Coimbatore, Tamil Nadu, and the Food and Beverages Division (FBD) Factory in Malur, Karnataka.

The FBD factory in Malur produces Sunfeast YiPPee! brand noodles and pasta while the Paperboards & Specialty Papers Division (PSPD) in Kovai Unit manufactures mainly white lined chip board and coated triplex boards from reclaimed post-consumer and industrial reclaimed fibres.

Both these sites are high water risk. The FBD Factory in Malur, Karnataka, is dependent on groundwater and is situated in an over-exploited block. The groundwater levels in the borewells within the site have declined and therefore most of the water requirement is met via external vendors, creating an operational risk to the company. The PSPD factory in Tamil Nadu obtains water from a stream, which is part of the Upper Bhawani River Basin and prone to water-related risks resulting from erratic climatic conditions (inconsistent rainfall), excessive unplanned and unsustainable water usage, water intensive cropping patterns and a rapidly declining water table.

Realizing these direct water-related business risks and following the company's commitment to water stewardship and the AWS Standard, ITC started work towards a watershed management strategy at both sites to map all stakeholders, identify site water risks and shared water challenges in the catchment area and address these through collaborative, multi-stakeholder and consensus-based approaches. The company's Paperboards & Specialty Papers Division (PSPD), Kovai Unit, received an **AWS Standard Platinum Certificate in October 2019**.⁴

² www.itcportal.com

³ www.itcportal.com

⁴ a4ws.org/certification/certified-sites

CONTEXT

ITC's PSPD Kovai site is located in the Upper Bhavani River Basin in Tamil Nadu, India. The site's water source is surface water (a tributary of the upper Bhavani River). The water is obtained from the river through a 5km-long pipeline.



Photo: ITC PSPD Kovai site, Coimbatore, India. MSK Team, ITC.

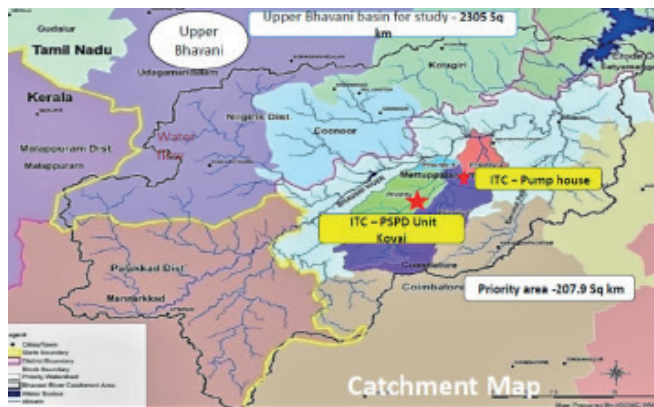


Figure 2. Map of Catchment area of ITC site

The water resources in the Upper Bhavani river basin have been found to be declining due to rapid urbanization, unsustainable agricultural practices, climate uncertainty and unplanned direct lifting of water from small tributaries. Some of the water challenges in the region include⁵:

- The river has non-uniform flow with 95% of annual water flows in monsoon (June to Dec) and only 5% in the remaining five months leading to severe stress in summer.
- 90% of the Bhavani river water is being used for agriculture, which largely involves water intensive crops, such as coconut and banana.
- In 2011, the area's groundwater was categorised as over exploited with 232% groundwater development (the percentage of utilization with respect to recharge) by the Central Ground Water Board (CGWB).
- A naturally dynamic physical environment of regular drought events, the frequency and severity of which are likely to increase as a result of climate change.

In response to this, the ITC Ltd. PSPD⁶ site at Kovai, collaborated with WWF India⁷ to complete an expert⁸ assessment of the hydrogeology in the entire Upper Bhavani Basin (0.23 million ha in area), with the aim of understanding the catchment water situation, future scenarios and identifying and prioritizing shared water risks and challenges **following Step 1 (Gather and Understand) of the AWS Standard**. As the first step, the site identified the physical scope (Priority Area – 20,709 ha) in the catchment to implement water stewardship initiatives following the **Criterion 1.1 of AWS Standard**. The Priority Area contains 29 micro-watersheds, which includes eight Panchayats (the term for a village council in India), 149 villages and some 14,000 households. All the work at the catchment level is being carried out by ITC CSR team – The MISSION SUNEHR KAL (MSK).

⁵ Findings of a forthcoming report commissioned by ITC Ltd. in collaboration with WWF India.

⁶ itcpspd.com

⁷ wwfindia.org

⁸ geovale.com

BENEFITS OF THE AWS STANDARD

ITC has been working to improve the **AWS Standard outcomes** at the Kovai site since 2015. Several measures have been undertaken to improve the site water balance by ensuring maximum water use efficiency, such as reducing specific water consumption by 5% year-on-year, increasing the recycling of Effluent Treatment Plant (ETP) water from 40% to 60%, improving internal water governance and ensuring safe drinking water, sanitation and hygiene services to all its employees.

Moving beyond the site to the wider local context, following the **Criteria 1.2 and 1.5 of AWS Standard**, the site commissioned detailed stakeholder mapping and stakeholder engagement processes with the NGO COODU9, and a detailed hydrogeological study with expert hydrogeologists at Geovale to identify and prioritize water risks and challenges (**Criteria 1.6 & 1.7**). These studies resulted in the development of a water stewardship strategy and the plan for the site (**Criteria 2.3**) to advance water security in the region. Based on the water stewardship plan, both supply and demand interventions were identified and initiated in the 29 micro-watersheds in the catchment area.

Given that the majority of the Priority Area in the catchment is used for agriculture, various capacity building activities on the demand side were undertaken. These include creation of Water User Groups; Self-Help Groups to improve water governance, training workshops on water saving practices, awareness raising campaigns on the state of ground water in the area, farmer field schools and demonstration plots for promoting farmer interaction with experts and demonstration of better agricultural practices.

On the supply side, further interventions such as the creation of water harvesting and recharge structures, deep farm ponds and open wells, as well as rejuvenation of traditional water harvesting structures have been initiated to improve overall water security.



Photo: Demonstration Plot of Farmer's Field School ITC Ltd., Kovai, India. Ashish Bhardwaj, AWS.

⁹ coodu.org

Implementing the AWS Standard has formalized the site's approach to sustainable water management and supported collective action for water security in the catchment.

Examples of significant changes driven by the AWS Standard implementation include¹⁰:

1. Good Water Governance

The site worked to improve water governance within their own fence lines as well at the catchment level. It formed a water-related internal governance team whose primary work is to plan, monitor and evaluate all water-related activities inside the fence line. Some of the roles and responsibilities of the team include:

- 1) Capacity building and awareness training of employees, workers and other site-specific stakeholders
- 2) Planning, implementing and monitoring of all water conservation related projects on site
- 3) Exploring new opportunities for improving sustainable water practices, and
- 4) Regular communication with Mission Sunehra Kal team (the CSR implementation team of ITC, responsible for all the catchment level work).

At the Catchment level, the site formed several Water User Groups (WUGs) with farmers, Self Help Groups of Women, multi-Stakeholder committees with local public sector agencies, agriculture universities, Krishi Vigyan Kendra (KVK) and Block Panchayats (Village council) and supported them in strategizing catchment water security planning for sustainable water management. All these efforts have resulted in increasing the awareness and capacity of the community, promoting sustainable agriculture practices and water efficiency at farms and improving livelihoods in the catchment area.

2. Sustainable Water Balance

At the site level, ITC implemented a number of water conservation measures with a total investment of approximately INR 8 Lakhs (11,276 USD), which resulted in 4,31,155 m³/ annual of water savings. In terms of economic value, these initiatives have resulted in savings of INR 12 Lakhs (16,914 USD) per annum with a benefit-to-cost ratio of 1.45. The site has also improved its specific water consumption from 11.3 in 2015-16 to 9.5 in 2019-20 and has increased the use of recycled water from 33% in 2015 to 58% in 2019.¹¹

At the catchment level, the site has been working on both demand-side and supply-side initiatives. On the demand side, the site has so far worked with around 40,000 farmers, resulting in a saving of 3.9 million m³ of water through awareness raising, capacity building, promoting farm mechanisation, sustainable agriculture practices and various water saving techniques like mulching, ring bunds, farm ponds, and drip irrigation. On the supply side, so far, water harvesting potential of 0.61 million m³ has been created, by creation, maintenance and rejuvenation of traditional water harvesting structures including 142 tanks and check dams and 225 village ponds in the catchment area.



Photo: Land management practices for soil and water conservation, Velliangadu Village, Upper Bhavani Basin, Coimbatore, India. MSK Team, ITC Ltd.

¹⁰ Water Quality isn't a shared water challenge in the catchment area.

¹¹ ITC internal assessment report (May, 2018) and ITC Corporate Sustainability Report (2019) - itcportal.com/sustainability/sustainability-reports.aspx

3. Healthy Status of Important Water-Related Areas

The site has identified several Important Water-Related Areas (IWRAs)¹² in the catchment including farm ponds, check-dams, forest, recharge zones, wasteland and river tributaries, and worked on both the maintenance as well the governance of these IWRAs. These initiatives have resulted in improving water storage potential, maintaining environmental flows, aquifer recharge and greenery development. The details are in Table 2 below:

4. Access to Drinking Water, Sanitation and Hygiene for All (WASH)

In terms of WASH provision, the site has provided one toilet per 13 workers and one drinking water point per 28 workers at the Site Level¹³. At the Catchment Level, the site has aligned its efforts with Swachh Bharat Mission of the Central Government and worked to raise awareness in good hygiene practices and provide capacity building trainings in schools and villages.

IWRAs IDENTIFIED	INTERVENTIONS MADE AS PER WATER STEWARDSHIP PLAN	INTENTION OF INTERVENTION
Tanks / Check-dams	Renovation and de-siltation	Increasing storage potential and reducing the run-off to maintain environmental flows
Farm Ponds	Creation of water harvesting structure	Increase water availability for irrigation
Forest in the catchment (Reserve & Social)	Soil and water conservation vegetation improvement	Prevention of soil erosion and increase of infiltration rate
Fringe Zone (Forest)	Promotion of dry land horticulture, agro-forestry	Reducing the run-off and increasing the vegetation for top-soil management
Recharge zones	Well recharge structures	Increasing aquifer recharge
Common wasteland	Flora and fauna development	Improving greenery
River tributaries	Renovation of harvesting structures on tributaries	Increasing flow during lean season and slowing down run-off

Table 1. IWRAs in Catchment Area

¹² IWRA is defined by AWS as "As area of feature of high value to humans or nature from an environmental, community or cultural perspective. In addition to formally recognized conservation areas, it includes such features as water wells and springs used for drinking water and features of cultural significance. It is similar to the High Conservation Value (HCV) concept but more specifically focused on water."

¹³ By comparison, the norms are one toilet per 150 people and 1 drinking water point per 250 workers as per WASH requirements (Drinking Water Points & Toilets as per India Factories Act, 1948)

COLLABORATIONS

The site aligned the interventions in collaboration with various government schemes as well as focused on collaboration with research institutes, Krishi Vigyan Kendra (KVK), village Panchayats and various public sector agencies. The site followed Participatory Rural Appraisal (PRA) approach ([links to Criteria 1.2, and 1.5 of AWS Standard](#)) to incorporate the knowledge and opinions of rural people in the planning and management of water stewardship interventions.

The PRA approach helped the site in:

- Stakeholder identification via social mapping
- Mapping of challenges faced by various stakeholders via problem ranking, focus group discussions
- Identification of hydrological resources, and IWRA via resource mapping

The collective actions efforts of ITC Kovai are described in the table below:

STAKEHOLDER GROUP	ACTIVITY	DESCRIPTION
Farmers	Water User Groups (WUG)	24 WUGs, each having 10-15 smallholder farmers exist at present. Financial contribution by farmers ranges from 5-20%.
Women	Self Help Groups (SHG)	52 SHGs at present, involved in awareness generation for water conservation in agriculture and domestic water use.
Local public sector agencies	Multi-Stakeholder Committee	For creating awareness in farmers on various subsidies and government schemes to promote sustainable agriculture practices.
Agri / Hort. Dept / Krishi Vigyan Kendra (KVKs) / CGWB)	Multi-Stakeholder Committee	For providing technical guidance to farmers on sustainable agriculture practices with emphasis on water use efficiency.
Block Panchayats	MoU	For rejuvenation of traditional water harvesting structures like village ponds, lakes, construction of check dams, percolation dams etc.
Other companies	Multi-Stakeholder Committee	For awareness generation, capacity building and contributing to broader catchment water stewardship planning.

Table 2. Collective Actions

CHALLENGES

The nature of the watershed and the fact that more than 95% of the water use in the catchment is for agriculture, posed the greatest challenge in working towards improving catchment water balance. Therefore, over time, the site realised that in addition to the water harvesting and recharge potential created, significant amounts of water savings can be achieved by working on the demand side management with farmers and communities to minimize their usage of water. This was achieved by awareness and capacity building, demonstration plots and farmer's field schools, promotion of sustainable agriculture practices including micro-irrigation and mechanisation.

In addition, building the trust of various stakeholders in the catchment - a prerequisite to ensure active collaboration - is a time and energy consuming process. The site's work within the catchment is carried out through the MSK team and it was ensured that the engagement with stakeholders was not only limited to water, but other areas of concern as well - such as education, skill development and vocational trainings (for example, trainings on IT, ITes, hospitality or electrics), linking them directly to market-based skills and providing formal employment to local youth. This helped the site to build trust with stakeholders and strengthen the collaborations.

CONCLUSION

The site's main priority is to ensure that the measures taken towards water security in the catchment and on-site are sustained and that there is continual progress. This is where certification against the AWS Standard plays an important and vital role as it provides a systematic framework to understand progress made towards water security, as well as offering a pathway for course-correction and improvement, to ensure the sustainability and efficacy of water stewardship interventions.

Companies should not consider the AWS Standard, or its adoption, as simply a pathway to certification, but rather a method to achieving on-the-ground results towards water security for the site and its stakeholders.

**This AWS Case Study was written by
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**To find out more information on AWS in India,
to learn more about AWS Standard implementation,
or to join the AWS India Water Stewardship Network
please email: ashish@a4ws.org
or visit the AWS website a4ws.org**

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