International Journal of Economic Practices and Theories (IJEPT)
ISSN: 2247-7225
Volume 2026, Issue 1

Sustainability Compliance of India Inc: An Examination of Water Management of Leading Indian Companies

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Abstract

Corporate Social Responsibility has been an official mandate for all companies and business entities across the country. Giving back to the society is imperative for all. As a good business practice, all companies are ordained to work on sustainability.This research delves into the Business Responsibility and Substantiality compliance of the select 15top corporations of India while keeping in mind Sustainable Development Goal 6-Clean Water and Sanitation. The study has considered ET 500 Companies list tofor analysis of the select companies.Content Analysis method has been utilised that permitted an objective examination of disclosures related to water withdrawal, water consumption, water discharge and Zero Liquid Discharge systems of these companies. Overall, the study identified that there exists a scope for improvement required in water sustainability practices of India Inc.

Keywords: Sustainability, Corporate, Social Responsibility, CSR, Communication, Public Relations, Stakeholders, Public Enterprises

Introduction

Sustainability as concept is all about the futuristic availability of resources and consistency of receiving necessities provided by the natural surroundings. The theory of sustainability set off in the year 1987 through Brundtland Commission of the United Nations, emphasised the sense of balance between environmental fortification, economic advancement, social comfort and security. There are many components attached to the sustainability, which includes ecological stewardship, financial feasibility and social even-handedness. The Commission pronounced sustainability as concept of accomplishing the essentials of present generation and securing for the future generations too. At present, around 140 developing nations across the globe are pulling out all the stops to deal with their development goals. In spite of all these, with the mounting perils of climate change, it is imperative to rustle up extensive efforts to guarantee that in time to come there has to be conducive environment for future generations. (*UnitedNations*, n.d.).

Of late, there has been a much-focussed effort to bring in the theory of corporate sustainability. This is further being integrated in the corporate strategies to build up a serious concern on economic, social, cultural and environmental concerns.Gabriel Eweje points that the corporations having global presence are supposed to have a commitment towards sustainable practices of the highest order (2011).

In the year 2015, the United Nations created the Sustainable Development Goals (SDGs), as a wide-ranging objective for call to action in order to eliminate scarcity and insufficiency, preserving the environment and confirming that all people have the feel of safety, security, peace and prosperity by 2030 (United Nations, n.d.). There are 17 interrelated goals that concede that advancement in one area encourages aftereffects in others. All these accentuate the necessity for an all-inclusive attempt that even out ecological and socio-economical sustainability. Nations have prioritised and pledged their commitment with the SDGs which function as a worldwide outline for universal advancement.

Towards a thriving fiscal growth, water and sanitation have extensive role to play. Unfortunately, the world is confronting horrific water crisis because of over-utilisation, contamination, greenhouse effects, and climate change. At present, 2.2 billion people do not have access to properly managed drinking water, and approximately 4.2 billion do not have access to securely managed sanitation. Eighty percent of wastewater returns to the ecosystem untreated or unused, and seventy percent of the world's natural wetland acreage has been destroyed, along with a significant loss of freshwater species. Sustainable Development Goal 6 (SDG 6) on water and sanitation, provides the framework for ensuring that everyone has access to water and sanitation. (United Nations, n.d.)

Water is a fundamental constituent of economies and enterprises across the world. Among its various applications, it serves as a solvent, cools industrial processes, attenuates pollutants, and is a key component of many produces. Communities and ecosystems in the vicinity may endure threats as a result of industrial water use and wastewater disposal. For instance, unsuitable wastewater discharge can harshly pollute recreational water bodies, infect drinking water supplies, and make water unusable for other needs. For neighbouring farms, unwarranted groundwater pumping raises coercing overheads. By further concentrating pollutants, large water withdrawals can worsen water-quality issues and dissuade water for other uses (Schulte et al., 2012).

Slowly but surely, corporations are distinguishing the need to adapt preventative measures in evaluating water related hazards and fostering lasting water management strategies to alleviate these perils. Unproductive water use, water insufficiency, pollution, climate change, and other water-related issues can coerce businesses in a variety of ways. These include reducing facilities' capacity affecting production levels, transformation in how stakeholders view the company, and influencing government regulations. Understanding upshot strategies requires a perception of their repercussions too (Schulte et al., 2012).

For large corporations, water is no more just a utility but a well-intended risk and a fundamental running resource. In the milieu of the worldwide water crisis and Sustainable Development Goal 6 (Clean Water and Sanitation), corporate water necessities have transferred from modest consumption to convoluted water management.In this study, the researchers have we have studied the water management pattern of the leading corporations like State Bank of India (SBI), Infosys, Maruti Suzuki, Tata Consultancy Services (TCS), National Thermal Power Corporation (NTPC), Coal India, Hindustan Petroleum Corporation Limited (HPCL), Bharat Petroleum Corporation Limited (BPCL), Larsen & Turbo Limited(LT&T), Oil and Natural Gas Corporation (ONGC), Jindal South West (JSW)Steel, TATA Steel, Indian Oil Corporation Limited (IOCL) and Reliance Industry Limited (RIL).

The exact purposes for which water is necessitated differ notably varying on the industrial sector. However, the predominant purpose endures the alleviation of water hazard.In the Energy and Hydrocarbon sector—comprising giants like NTPC, ONGC, RIL, IOCL, BPCL, and HPCL— water acts as the elementary mode for thermal cooling and high-pressure steam production. This guarantees the operative steadiness of gigantic refineries and power plants. Concurrently, Coal India uses water for mineral processing and vital dust repression to encounter stringent ecological directives.

On the other hand, heavy manufacturing and infrastructure corporations like Tata Steel, JSW Steel, Maruti Suzuki, and L&T consider water as a transformative means. For these companies, water is imperative for the dowsing and flushing of metals, chemical surface treatments in automotive painting, and specific mixing for extensive construction projects. These water-demanding procedures have enforced a swing toward state-of-the-art, water-saving skills to uphold production without diminishing public resources.

In the service and financial sectors, companies like Infosys, TCS, and SBI, display a diverse mandate outline. Their necessities are predominantly domestic but colossal in scale, concentrating on HVAC systems for chilling data centers and offering high-standard cleanliness for their widespread workforces. These firms habitually spearhead in urban water management owing to rainwater harvesting and greywater reprocessing.

Eventually, the combined corporate strategy is an evolution toward globular water economies. By employing advanced Zero Liquid Discharge (ZLD) systems and repurposing municipal wastewater, these corporations are

productively decoupling industrial development from freshwater diminution, confirming they continue meeting the requirements with worldwide sustainability standards while upholding local water security.

Review of Literature

The corporations have to follow the strict guidelines in order to be safe. They need to defend or augment their upright and principled impression, stay away from burdens, soothe the wellbeing of employees, take action in order to meet government regulations and address the obligations of shareholders. They also need to be proactive to advancement and also to hunt for newer opportunities and stay aggressive (G. Eweje, 2011). In this direction, corporations having global existence are duty-bound to constitute and adhere to sustainability strategy and imbibe the role of not letting happen any harm to the environment anymore (Hart, 1996). The diligent persuasion by the array of stakeholders, comprising of several communities, customers, employees, government agencies and other investors have made the corporations to be obligated to follow social and environmental-friendly norms (Warren, 2008).

Harris and Crane pinpoints that, all these are centred around the prevalent acceptance that establishments can contribute a remarkable responsibility in diminishing the worsening ecological conditions, social disparity, insufficiency and deprivation in the society and contribute towards sustainable development (2002).

Mandelbaum explained corporate sustainability as a strategic planning and professional attempt to establish long-term tactical move of encompassing prospects and mitigating hazards stemming out of social, economic and environmental developments (2007).

For corporations, water postures major environmental challenges. This challenge arises from the accessibility of water. Nearly 97 percent of the water on Earth is found in the oceans, only 3 percent is clean water. (United Nations Environment Programme, 2008).

With the escalating impact of sustainable development, corporations are devising methods (Beamon, 1999a) to tackle issues of ecological and socio-economical hazards (United Nations General Assembly, 2005). This can have an impact on the "firm's environmental activities (internal and external) and their economic and environmental performance" that may positively be correlated to give a desired result (Pullman et al., 2009, p. 41). Lambooy emphasised that it is repeatedly challenging to institute a clear connection between environmental changes and an organisation's water usage. For nations like India, the demand for electricity is mounting swiftly, water use in coal power production is one of the utmost important issues to accentuate. Until 2040, the coal will endure to be the principal source of electricity generation in India, compelling a steady supply of water, which is by now under pressure. The geographical evaluation of water extraction and utilisation in the coal power sector at three major stages — fuel withdrawal, fuel preparation, and power generation — is the fundamental stress of this effort.

The top honchos of multinational corporations have vouchsafed to intensified water usage productivities in their companies' plants and downwards in their supply chain. Corporations in water-intensive industries are edifying themselves on the complications of managing water resources and gauging their vulnerability to water supply disruptions during times of insufficiency(Newborne, 2012).

Power plant technology transformation might help lower the largely water demand of the coal-fired power sector by 78 percent, which would further minimise the rigorousness of regional water stress. In addition to meeting the requirement for high-grade regional data that might be used in the future to support sustainable water-resources management methods (Singh and Tayal, 2021). (Bharadwaj, Naik, & Nath) outlined that corporate brand associations are significantly impacted by sustainability communications, and businesses can effectively inform customers about their sustainability goals by utilising an array of communication channels (2022).

According to the SDG Report 2025, WASH (Water, Sanitation and Hygiene) services have progressively recuperated in the last decade. Pollution, water stress, and inadequate governance are putting pressure on water systems. Freshwater ecosystems are dwindling, transboundary cooperation is inadequate, water crisis is yet a

foremost issue in many areas. (United Nations Statistics Division, 2025). As per different sources, roughly one-third of India's water, solid waste, and other harmful waste have been spoiled by industrial effluent discharge. Petrochemicals, sugar mills, distilleries, leather processing, paper mills, agrochemical and pesticide manufacture, and pharmaceutical companies make up the largest of these evading industries. Surface water is the most important means of disposing of trash for these companies. Industrial activities had adulterated nearly all of India's water sources. Even though all Indian enterprises are question to the rigorous regulations set forth by the Central Pollution Control Board, the current environmental state of affairs is far from perfect (Shankar et al., 2021).

Objectives and Methodology

Objectives

1. To examine the water consumption patterns ofthe identified leading companies of India.
2. To find out the water discharge methods of the chosen leading companies of India.
3. To compare water sustainability growth dynamics of the selected companies for the Financial Year 2023-2024 to Financial Year 2024-2025.

Content Analysis method has been utilised for this study. This permits for an objective examination of corporate disclosures, as per the Business Responsibility and Substantiality Reportof the selected companies."Business Responsibility and Sustainability Reporting(BRSR) is introduced by the Securities and Exchange Board of India (SEBI) as an integrated reporting framework. Its purpose is to increase the level of reporting on environmental, social, and governance (ESG) performance. BRSR requires enterprises to report ESG performance indicators to ensure that they practise responsible business and achieve sustainable development" (NCMA, 2024).

As per Regulation 34(2) of SEBI (Listing Obligations & Disclosure Requirements) Regulations 2015, top one thousand listed entities based on market capitalisation is required to prepare BRSR. This reportincludes Key Performance Indicators (KPIs) and comprises of three dimensions for reporting i.e. General Disclosures, Management and Process Disclosures and Principles-wise Performance Disclosures. Keeping in mind Sustainable Development Goal 6-Clean Water and Sanitation, thecode book was prepared to understand and evaluate water usage of the selected companies. The Report clearly outlines the criteria for water utility disclosures in Principle 6 Essential Indicator 3 (water consumption), 4(water discharged) and 5 (Zero Liquid Discharge).Principle 6 emphasise that businesses should respect and make efforts to protect and restore the environment. All companies are supposed to provide their data every year as per the set criteria. The data of Financial Year 2025-2024 has been studied and analysed for understanding the water utility and management of the chosen companies.

Sample

The sample consists of 15 Indian Companies which are selected from the top 25 companies provided in the ET 500 list of companies. ET 500 companies is a list of companies with good fundamentals and future-ready business models. The Economic Times compiles this list every year on the basis of market capitalisation and revenue and profit. BRSR reports of the 15 companies for the Fiscal Year 2024-2025 have been chosen for the study.

The industry details of the companies that have been taken for the study are as follows:

Company	Industry / Sector	Sector Description
State Bank of India (SBI)	Banking & Financial Services	Public sector banking
Bank of Baroda	Banking & Financial Services	Public sector banking
Infosys	Information Technology	IT services and consulting
Maruti Suzuki	Automotive	Passenger vehicle

		manufacturing
Tata Consultancy Services (TCS)	Information Technology	IT services and consulting
NTPC	Power & Utilities	Thermal and renewable power generation
Coal India Ltd	Mining & Natural Resources	Coal mining
Hindustan Petroleum Corporation Ltd (HPCL)	Energy	Oil refining and petroleum
Bharat Petroleum (BPCL)	Energy	Oil refining and fuel distribution
Larsen & Toubro (L&T)	Infrastructure & Engineering	Construction, heavy engineering
Oil and Natural Gas Corporation Limited Ltd (ONGC)	Energy	Oil and natural gas exploration & production
JSW Steel	Metals & Mining	Steel manufacturing
Tata Steel	Metals & Mining	Steel manufacturing and mining
Indian Oil Corporation Ltd (IOCL)	Energy	Oil refining and petroleum
Reliance Industries Ltd (RIL)	Energy	Oil refining, petrochemicals, energy, telecom

Table 1: List of Companies and Industry Classification

Tabulation and Analysis

Water is a rare natural resource which is basic for human life, livelihood and sustainable development. It is urgent for India to preserve and make a wise use of water as the economic growth depends on the availability of water in the country. As per the estimates of Union Ministry of Water Resources, India's water needs, which were 1,100 billion Cubic Meters (BCM) annually in 2017, will increase to 147 BCM by 2050 (Devan, 2024). India constitutes 16% of the world population but it has only 4% of world's freshwater resources (Shiferaw, 2021). There is a scarcity of freshwater on India and a bigger point of concern is the increasing rise of groundwater extraction for decades now. (Shiferaw, 2021, Kapoor & Anand, 2024; Central Ground water Report 2022). India is an agrarian country and therefore irrigation sector is the largest user of India's water (78%) and industrial sector contributes to 5% of the water usage (PIB, 2013).

Water Withdrawal

The details of the water discharge are provided in four sub-sections in the BRSR report. These include surface water, ground water, sea water/ desalinated water, third party water and others.

As per the SEBI Master Circular (2024), The naturally occurring water on earth's surface that we get from wetlands, lakes, rivers and reservoirs is called surface water. On the other hand, water that exists underground is called groundwater. The source of sea water/ desalinated water is sea or ocean; third party water refers to municipal water and other private suppliers of water. These companies also need to provide details of water in other sources category, in case water is consumed in significant amount.

SOURCE OF WATER WITHDRAWAL (IN LAKHS KILOLITRES)

COMPANY	SURFACE WATER	GROUNDWATER	THIRD PARTY WATER	SEAWATER / DESALINATED WATER	OTHERS	TOTAL
SBI			28.22			**28.22**
INFOSYS	2.78	0.52	16.31			**19.61**
MARUTI			21.29			**21.29**
TCS	2.80	31.17			0.91	**34.88**
NTPC	61244.89	4.48		777.68	26.38	**62053.42**
COAL INDIA	152.87	5716.99	22.34			**5892.20**
HPCL	1.83	6.61	139.38	417.15		**564.97**
BPCL	301.93	5.08	48.46	180.94	33.25	**569.66**
L&T	25.73	88.16	5.86	0.03	78.41	**198.18**
ONGC	42.72	42.82	4.58	3.81	115.00	**208.92**
JSW	0.09		4.82			**4.90**
TATA	1372.24	241.96	147.64	1947.05	188.02	**3896.91**
IOCL	879.54	131.98	85.92	0.06	75.56	**1173.06**
RIL	972.18	23.19	141.32	945.13	2.83	**2084.65**
TOTAL	**64999.59**	**6292.97**	**666.14**	**4271.85**	**520.35**	**76750.89**
%	**84.69**	**8.20**	**0.87**	**5.57**	**0.68**	**100**

Table 2: Source of Water Withdrawal (Volume in Lakhs Kilolitres) of FY 2025

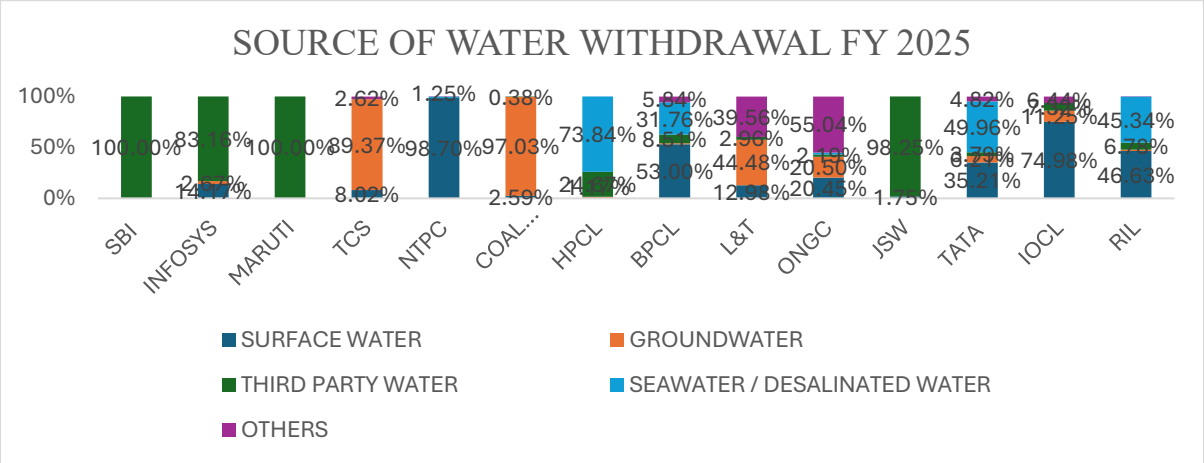

Chart1: Dominant Source of Water Withdrawal (%) by each company

It has been identified that in FY 2025 nearly 84.92% of water has been withdrawn from surface water, 8.22% from ground water and 5.37% from sear water/ desalinated water by all the companies under study. Apart from this, 0.85% is procured through third party water and 0.64% is procured through others. Company-wise analysis shows that SBI and Maruti withdraws 100% water from the third party. Very close to this figure is 98.25% of its water withdrawn from the third party. The percentage of ground water usage by Coal India (97.03%) TCS (89.37%) is very high. This raises serious water sustainability concerns and warrants careful attention. L&T uses 44.48% and ONGC uses 20.50% ground water which emerges as the largest sources of water withdrawal among all other sources. This again is a disturbing indicator and underscores sustainability concerns. HPCL on the other hand, withdraws water responsibility with greater environmental concerns than other companies, as it withdraws 73.84% of its total water from the seawater or desalinated water. Likewise, TATA Steel adheres to similar practices by withdrawing maximum (49.96%) of its water from seawater. This is followed by Reliance that withdraws 45.34% and BPCL that withdraws 31.76% of sea water. Infosys withdraws maximum water from third party water which is still an acceptable indicator because third party water minimizes direct environmental impact. NTPC (98.7%), IOCL (74.98%) and BPCL (53%) withdraw the maximum of their water from surface waterwhich is a more sustainable option than withdrawing groundwater.Bank Of Baroda has not has not given any details on their water withdrawal, consumption or discharge.

Analysing the year-over-year (y-o-y) increase in the water withdrawal of all of these companies it is identified that there is 2.7% y-o-y increase in withdrawal of water from surface. There is a very less percentage increase in water withdrawn from groundwater which is 0.035% from FY 2024 to FY 2025. Moreover 19.17% y-o-y percentage of water withdrawn in others category. However,overall, there is 2.92% y-o-y decrease in the use of seawater/ desalinated water and 0.52% y-o-y decrease in the use of third-party water by all of these companies. There is a requirement for these companies to enhance their seawater usage as it helps in reducing burden on the freshwater and proves to be an effective alternate for industrial purpose.

TOTAL WATER WITHDRAWAL (IN LAKHS KILOLITRES)			
COMPANY	**FY 2025**	**FY 2024**	**% INCREASE**
SBI	28.22	27.96	0.93%
INFOSYS	19.61	20.15	-2.69%
MARUTI	21.29	19.47	9.35%
TCS	34.88	29.47	18.38%
NTPC	62053.42	60355.13	2.81%
COAL INDIA	5892.20	5853.44	0.66%
HPCL	564.97	915.47	-38.29%
BPCL	569.66	610.81	-6.74%
L&T	198.18	161.25	22.90%
ONGC	208.92	233.72	-10.61%
JSW	4.90	6.92	-29.13%
TATA	3896.91	3712.87	4.96%
IOCL	1173.06	1144.26	2.52%
RIL	2084.65	2041.00	2.14%
TOTAL	76750.89	75131.93	2.15%

Table 3: Water Withdrawal by India Inc. (Volume in Lakhs Kilolitres)

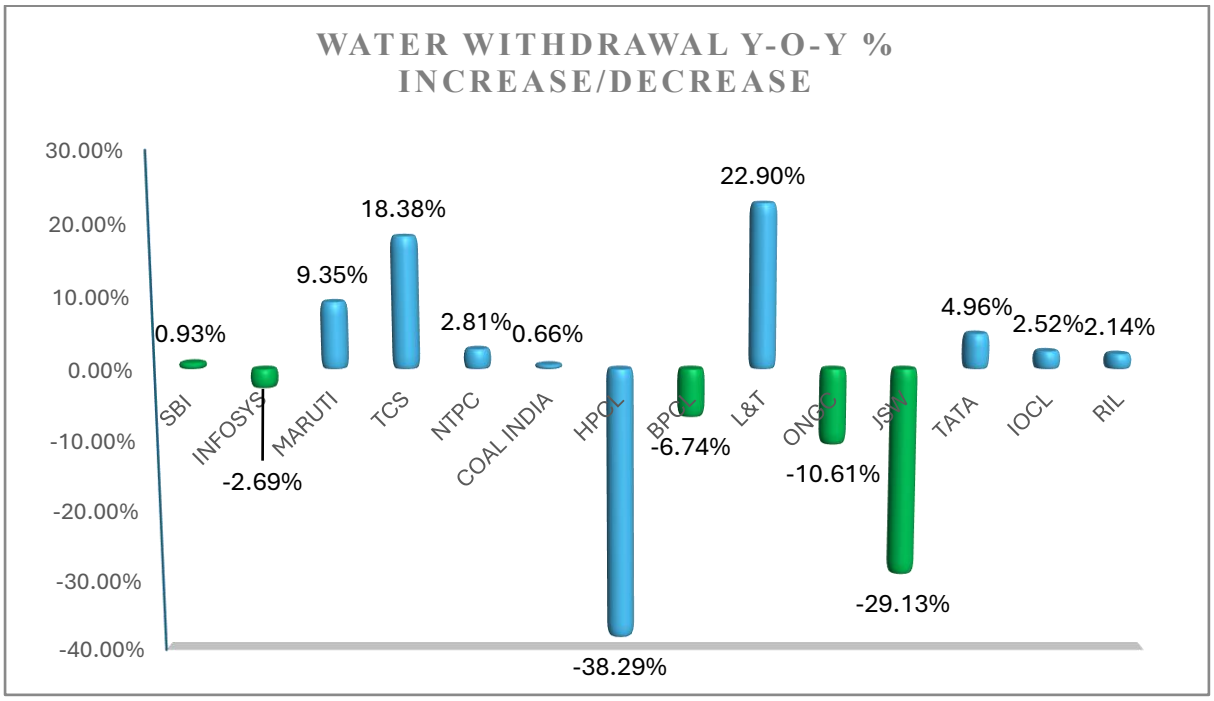

Chart2: Year Over Year % increase /decrease in Water Withdrawal by each company

The total amount of water withdrawn by these companies has increased 2.15% i.e. from 75131.93 lakhs kilolitres in FY 2024 to 76750.89 lakhs kilolitres in FY 2025. Analysing the y-o-y increase of water withdrawal company-wise, it is worth noting that HPCL, JSW, ONGC, BPCL and Infosys have reduced their water withdrawal to 38.29%, 29.13%, 10.16%, 6.74% and 2.69% respectively in the last one year. Coal India (0.66%) and SBI (0.93%) reported a slight increase in water withdrawal and it appears that both organisations are close to manage optimal control on the water withdrawal. On the contrary, L&T (22.9%) and TCS (18.38%) have increased their water withdrawal to a noticeable level, which demands serious interventions and improvements. Following this is Maruti and TATA that has increased its water withdrawal to 9.35%. and 4.96% respectively. NTPC (2.81%), IOCL (2.5%) and RIL (2.14%) also need to strengthen and refine their water withdrawal strategies

Water Consumption

Water withdrawal and water consumption are the two primary water parameters that we examined. The total amount of water extracted for any purpose during the reporting period, whether from surface water, groundwater, marine, or a third party, is referred to as water withdrawal. Water consumption is the amount of water that an organization uses to the point where it is no longer usable by the local community or ecosystem during the reporting period. It is the total amount of water removed during the reporting period and not returned to surface water, groundwater, ocean, or a third party. To explain in simple terms, water consumption equals Total Water Withdrawal minus Total Water Discharge.

TOTAL WATER CONSUMPTION (IN LAKHS KILOLITRES)			
COMPANY	**FY 2025**	**FY 2024**	**% INCREASE**
SBI	15.68	27.96	-43.93%
INFOSYS	19.43	19.38	0.29%
MARUTI	21.29	19.47	9.35%

TCS	28.72	24.67	16.39%
NTPC	10441.20	9698.83	7.65%
COAL INDIA	2915.47	2833.05	2.91%
HPCL	198.24	172.87	14.67%
BPCL	360.86	346.84	4.04%
L&T	154.32	128.76	19.84%
ONGC	140.81	180.32	-21.91%
JSW	4.90	6.92	-29.13%
TATA	1262.56	1213.94	4.01%
IOCL	1529.26	1507.90	1.42%
RIL	2084.65	2041.00	2.14%
TOTAL	19177.38	18221.92	5.24%

Table 4: Water Consumption by India Inc. (Volume in Lakhs Kilolitres)

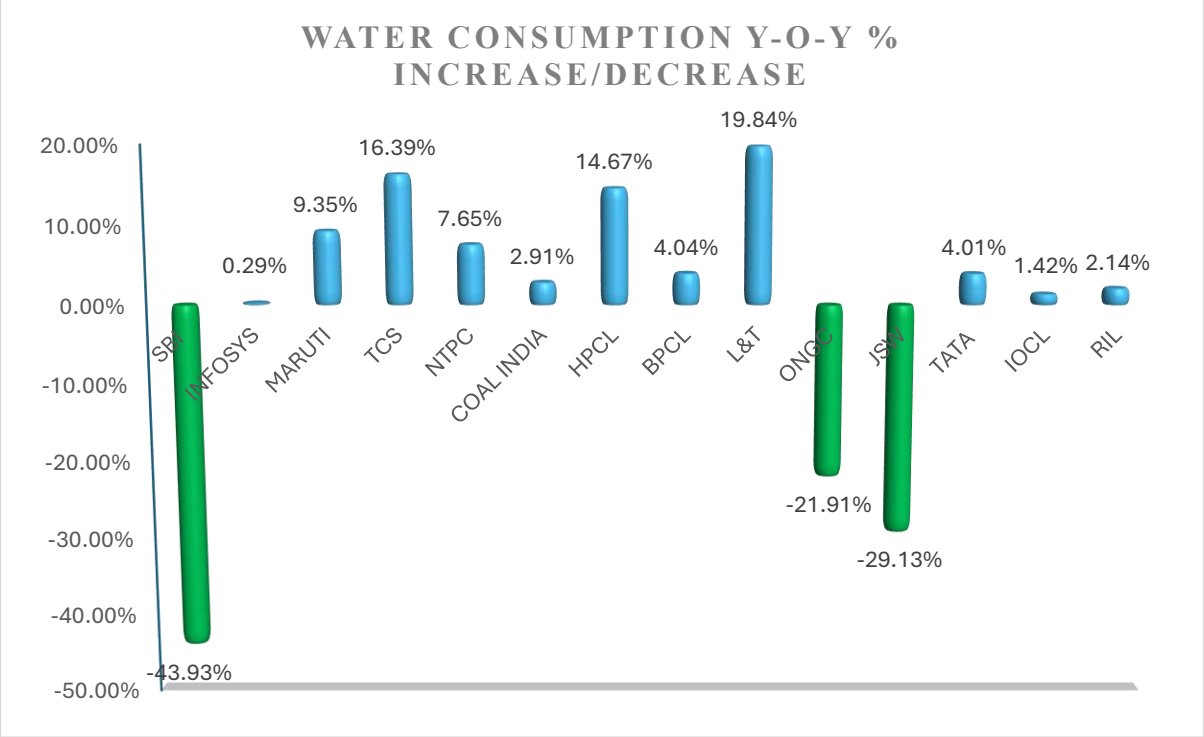

Chart 3: Year Over Year % increase /decrease in Water Consumption by each company

The water consumption is the water consumed by the organisation and is no longer used by the ecosystem. It is worth emphasizing SBI, ONGC and JSW reduced their y-o-y consumption by 43.93%, 21.91% and 29.13% respectively. This is noteworthy, as reducing water consumption should not just be an environmental compliance. Such efforts support larger community goals and helps in holistic development of the country. The remaining eleven companies, however, still need to optimize their water consumption. These include L&T (19.84%), TCS (16.39%), HPCL (14.67%), Maruti (9.35%), NTPC (7.65%), BPCL (4.04%), TATA (4%), Coal India (2.9%), Reliance (2.14%), IOCL (1.42%) andInfosys (0.29%).

Water Discharge

TOTAL WATER DISCHARGED (IN LAKHS KILOLITRES)			
COMPANY	**FY 2025**	**FY 2024**	**% INCREASE**
SBI	12.54	12.43	0.93%
INFOSYS	1.30	3.21	-59.52%
MARUTI	0.00	0.00	
TCS	6.16	4.79	28.64%
NTPC	51184.26	49691.36	3.00%
COAL INDIA	2976.73	3020.39	-1.45%
HPCL	366.74	742.60	-50.61%
BPCL	208.81	263.96	-20.89%
L&T	42.34	32.44	30.52%
ONGC	68.11	53.41	27.53%
JSW	0.00	0.00	
TATA	2634.35	2498.93	5.42%
IOCL	50.08	52.41	-4.45%
RIL	353.06	346.32	1.95%
TOTAL	57904.48	56722.24	2.08%

Table 5: Water Discharged by India Inc. (Volume in Lakhs Kilolitres)

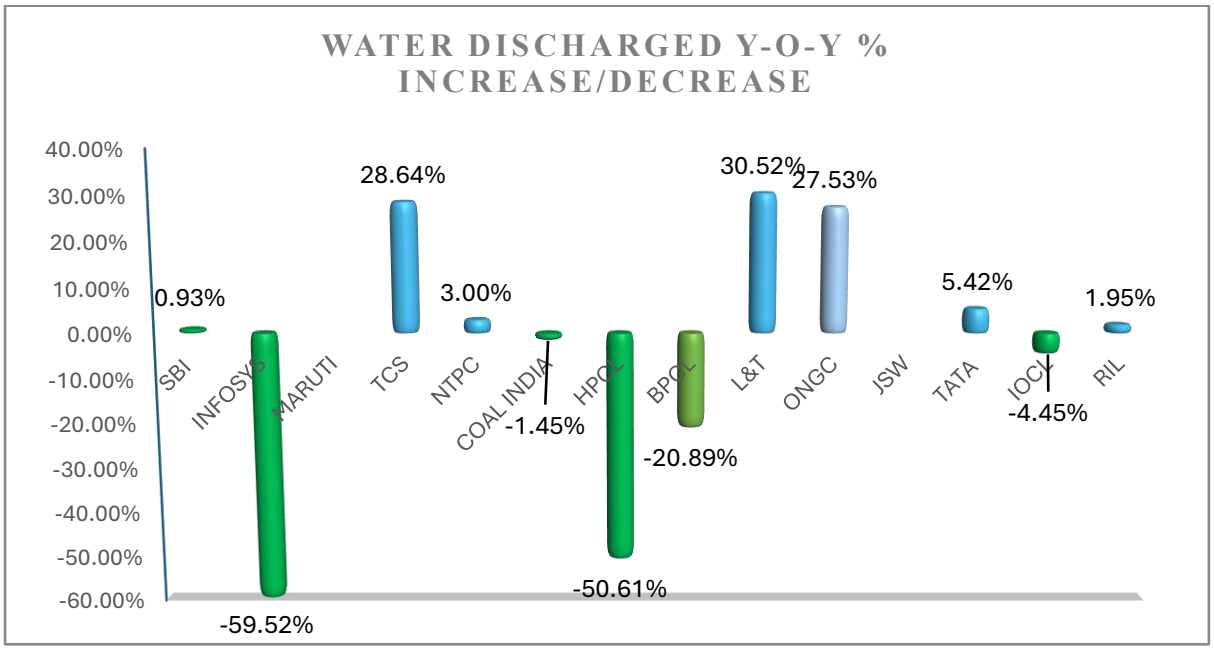

Chart 4: Year Over Year % increase /decrease in Water Discharge by each company

As per the BRSR report, Maruti and JSW did not discharge any water in both the financial years. It is identified that Infosys (59.52%), HPCL (50.61%), BPCL (20.89%), IOCL (4.45%) and Coal India (1.44%) have reduced their water discharge in these two financial years. On the other hand, L&T (30.52%), TCS (28.64%), ONGC (27.53%), SBI (0.93%), TATA (5.42%), NTPC (3%) and Reliance (1.95%) are yet to work on its water discharge. The total water discharge by these companies in FY 2025 is 57904.48 lakhs kilolitres.

WATER DISCHARGE METHOD (2025) IN LAKH KILOLITRES FY 2025											
	TO SURFACE WATER		**TO GROUND WATER**		**TO SEAWATER**		**SENT TO THIRD PARTIES**		**OTHERS**		
COMP	**NT**	**T**	**NT**	**T**	**NT**	**T**	**NT**	**T**	**NT**	**T**	**TOTAL**
SBI									11.36	1.19	**12.54**
INFOSYS							1.30			1.30	**2.60**
MARUTI											
TCS							4.12	2.04			**6.16**
NTPC	50722.07				462.19						**51184.26**
COAL INDIA		463.07						2513.66			**2976.73**
HPCL						366.70		0.01		0.02	**366.74**
BPCL		36.47		0.24		171.90			0.21		**208.81**
L&T		8.52		8.64		0.32	4.11	2.54	17.74	0.46	**42.34**
ONGC		1.08				5.24				61.79	**68.11**
JSW											
TATA	0.19	120.66		0.12	2030.97	209.25		2.20		270.97	**2634.36**
IOCL		29.51				6.00				14.57	**50.08**
RIL		60.87				276.96		15.23			**353.06**
TOTAL	**50722.26**	**720.17**		**9.00**	**2493.16**	**1036.36**	**9.54**	**2535.69**	**29.30**	**350.31**	**57905.79**
%	**87.59**	**1.24**		**0.02**	**4.31**	**1.79**	**0.02**	**4.38**	**0.05**	**0.60**	**100**

Table 5: Water Discharged Not Treated &Treated (Volume in Lakhs Kilolitres) of FY 2025

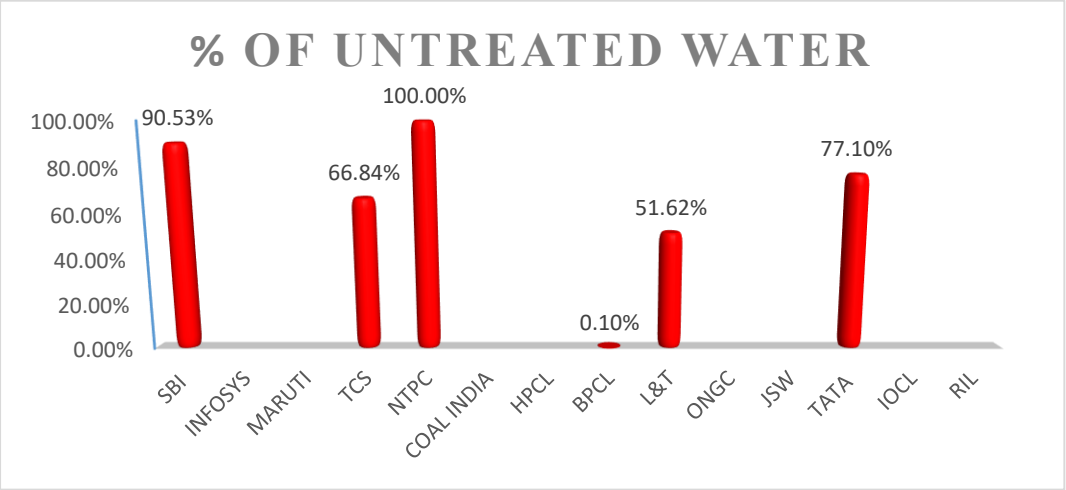

Chart 5: Percentage of Untreated Water Discharge by each company in FY 2025

When companies in India discharge untreated wastewater, the result is long-lasting damage to rivers, groundwater, soil and ecosystem. It is identified that six of these companies discharged water without treatment in FY 2025. NTPC and SBI tops the list with 100% and 90.53% of water discharge. TATA (77.10%), TCS (66.84%), L&T (51.62%) also discharged a noticeable amount of untreated water. BPCL discharged 0.10% of untreated water. On the other hand, it is noteworthy that Infosys, Maruti, Coal India, HPCL, ONGC, JSW, IOCL and RIL discharged 100% treated water in FY 2025.

Findings

- Coal India (97.03%) and TCS (89.37%) are withdrawing the majority of their water from the ground as compared to the water withdrawn from other sources. This is not sustainable practice. It is important that these companies should remain aware of the scarcity of the ground water. Similarly, L&T (44.48%) and ONGC (20.50%) are using a lot of ground water which is a matter of concern.
- HPCL sets a good example in withdrawing water from appropriate sources. It is consuming 73.84% of its total water from the seawater or desalinated water. Likewise, TATA Steel adheres to similar practices by withdrawing maximum (49.96%) of its water from seawater. This is followed by Reliance that withdraws 45.34% and BPCL that withdraws 31.76% of sea water.
- Overall analysis depicts that taking all these companies together the water withdrawal from surface water has increased (y-o-y) 2.7% and there is a minor increase in water withdrawal from ground water 0.035% from FY 2024 to FY 2025. Therefore overall, it can be said that these companies are putting their efforts to withdraw minimum possible water from the ground.
- HPCL (38.29%), JSW (29.13%), ONGC (10.16%), BPCL (6.74%) and Infosys (2.69%) have reduced their water withdrawal to 38.29%, 29.13%, 10.16%, 6.74% and 2.69% respectively in the last one year.
- It is worth emphasising that SBI, ONGC and JSW reduced their y-o-y consumption by 43.93%, 21.91% and 29.13% respectively. This is noteworthy, as reducing water consumption should not just be an environmental compliance. Such efforts support larger community goals and help in holistic development of the country. The remaining eleven companies, however, still need to optimize their water consumption.
- The total water discharge by these companies in FY 2025 is 57904.48 lakhs kilolitres. As per the BRSR report, Maruti and JSW did not discharge any water in both the financial years.
- All of these companies have provided details on the Zero Liquid Discharge (ZLD) systems. ZLD requires instalment of treatment plants so that all wastewater is recycled on-site and no liquid effluent is discharged. This enables companies to meet environment rules but this requires more energy and capital.NTPC

and SBI tops the list with 100% and 90.53% of untreated water discharge. TATA (77.10%), TCS (66.84%), L&T (51.62%) also discharged a noticeable amount of untreated water. BPCL discharged 0.10% of untreated water.

- NTPC in its ZLD disclosure doesn't elaborate on the kind of water treatments at its plants. It vaguely mentions that majority of thermal power plants of NTPC are ZLD compliant. However, through its water discharge disclosures it is identified that 100% of the water discharged by NTPC was untreated water. This is a matter of serious concern and NTPC definitely needs to check how it is discharging its water.
- SBI's water discharge on the other hand has to be understood from a different perspective. Its BRSR report mentions that the Bank's operations do not result in generation of industrial wastewater. However, to treat domiciliary wastewater the Bank has installed Sewage Treatment Plants (STPs) at 30 of their larger premises. 90.53% of water discharge by SBI is untreated water.
- TATA Steel that discharges 77.10% of untreated water has stated that is taking measures to place to prevent local water contamination and reach Zero Effluent Discharge (ZED). TCS discharges 66.84% of untreated water. Its disclosure mentions that TCS has implemented infrastructure for treatment of wastewater and recycling the treated water and all TCScampuses are zero liquid discharge facilities and still it discharges a noticeable amount of untreated water. This stands contradictory.
- L&T mentions that its major facilitieshave Zero Liquid Discharge (ZLD) systems. These systems ensure that the entire volume of wastewater generated from operations is either recycled and reused or stored for future use. The treated wastewater is repurposed for non-potable applications such as gardening, toilet flushing, firefighting, road washing, and dust suppression, significantly reducing the environmental impact. It still discharges (51.62%) of untreated water.
- BPCL on the hand provides exact volumes of recycled water 4,115.23 TKL at Bina Refinery, 2,135.89 TKL at Mumbai Refinery, 3,983.98 TKL at Kochi Refinery at it has discharged 0.01% of untreated water in the Financial Year 2025.

Conclusion

Freiberg et al. outlined that the use of water by organisations impacts a significant portion of the total environmental (2020). This research identified that there exists a potential for improvement when it comes to water consumption and discharge by India Inc.India is world's largest user of ground water and there is a need to maintain continuous monitoring and regular evaluation of how India Inc. is discharging its waste water. As per the Central Groundwater Board of India estimates that about 14% of groundwater blocks are overexploited, indicating ground water extraction exceeding the annually replenishable ground water recharge. Ground water is replenishable but it there is overexploitation of ground water which has created water stress. The availability of ground water is linked with food security and it is imperative that all of thesecompanies must demonstrate the decrease in groundwater use. It is a cause of concern thatCoal India and TCS are withdrawing large volume of water from groundwater. These companies should adopt best practices and should draw lessons from company like HPCL that withdraws majority of its water from seawater/desalinated water.

It is important to note that all of these companies have utilised Zero Liquid Discharge system in one way or the other. Liang et al., explains ZLD is a technique adopted by companies for treating their liquid waste. Rather than releasing the effluent they treat the water by converting the contaminants into solid waste. The water is then reused (2023). However, the ZLD framework is yet to be fully implemented. Discharge of waterwithout treatment is deeply concerning as some of these companies like NTPC, TCS, TATA Steel and L&T are discharging untreated water. When companies discharge water without treatment they contaminate the water sources including rivers, lakes and groundwater. This possesses a serious risk to the ecological balance. As Kumar and Kumar underlines that industrial effluents raise Biochemical Oxygen Demand, Chemical Oxygen Demand, Total Dissolved Solids, and Chloride to many times safe limits, making water unfit for drinking, irrigation, or aquatic life (2020). This is dangerous because famers use this untreated or partially treated water for irrigation that can lead to heavy metals entering the food chain and ultimately entering the human body.

Suggestions & Limitation

This research is limited to the understanding the water disclosures of only top 15 companies of India. Further research may incorporate a broader set of companies to gain deeper insights into water sustainability disclosure practices of the corporate sector of India.

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