



Sustainability Linked Loan Framework

JSW Cement

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1. Introduction

1.1 Background

The US\$ 13 billion JSW Group is ranked among India's leading business houses. JSW's innovative and sustainable presence in various sectors including Steel, Energy, Infrastructure, Cement, Paints, Venture Capital and Sports is helping the Group play an important role in driving India's economic growth. The Group strives for excellence by leveraging its strengths & capabilities including a successful track-record of executing large capital-intensive & technically complex projects, differentiated product-mix, state-of the-art manufacturing facilities and greater focus on pursuing sustainable growth.

JSW Cement Limited is a part of the JSW Group and is into manufacturing of cement, Ground Granulated Blast Furnace Slag (GGBS), ready mix concrete, aggregates, additives, plaster, other cementitious materials and services. In the last decade, JSW group was fast adding capacity in steel and power manufacturing and as a result, large quantity of slag and fly ash were being generated. The desire to promote the circular economy created a need to utilise this waste as a resource & Cement manufacturing had presented the best opportunity for JSW Group. The birth of JSW Cement was rooted in the philosophy that circularity should be the anchor for a sustainable society. As we started operations and continued our path, we have kept our commitment to this ethos – and have scaled and delivered growth with sustainability at the core.

Environmental protection is an important component of our sustainability initiatives. Being an integral part of the JSW Group, environment-friendly operations are deeply imbibed in our DNA. We ensure all our actions and decisions lead to strengthening our sustainability approach. There is a paradigm shift in environment, social and governance (ESG) practices globally and we are fully aligned to various commitments linked to social license to operate, climate change, employee, community well-being and preservation of the ecosystem. We believe in sustainable and inclusive growth while protecting the environment and enabling society to reap sustainable benefits.

JSW Cement is the India's leading 'Green Cement' manufacturer, growing since the inception in 2009 and has a vision of a sustainable future for the country through the production of eco-friendly products. We are committed to contributing to the building of self-reliant India.

1.2 Our Commitment to Sustainability

JSW Cement is committed to strengthening its ESG performance across the operational ecosystem and has developed a Sustainability strategy to ensure that the interests of investors, community and environment are not compromised.

The roadmap is based on formulating appropriate policies, conforming to regulatory norms, making regular disclosures, setting targets of minimising our environment footprint and strengthening corporate governance to meet those targets.

At JSW group level, which encompasses businesses including Steel, Energy, Infrastructure, Cement, Paints, Venture Capital and Sports, we have developed a *Sustainability Vision* that guides our social, ethical and environmental responsibilities.

Our Vision is that We are able, both now and in the future, to demonstrably contribute in a socially, ethically and environmentally - responsible way to the development of a society where the needs of all are met, and to do so in a manner that does not compromise the ability of those that come after use to meet the needs of their own, future generations.

Our commitment of demonstrating fulfilment of our Sustainability Vision emanates from our *Sustainability Strategy*, based on seven key elements:

1.3 Elements of our sustainability strategy

- **Leadership:** We will provide our leaders with the necessary skills and knowledge that will help them to oversee the implementation and maintenance of our sustainability strategy throughout the organisation. We aim to create a culture of conscious decision making starting with our leaders and trickling down throughout the whole organisation.
- **Stakeholder Engagement:** Leveraging our stakeholder relationships we plan to widen our horizon, starting with understanding their needs and expectations and building our strategy to encompass and fulfil them successfully.
- **Communication:** By remaining closely connected to our internal and external stakeholders, we have defined suitable communication channels to help us convey our policies decisions another strategic information at each level.
- **Planning:** It is important to gain a holistic perspective of the various issues, impacts, risks and opportunities affecting our stakeholders. this will guide us to develop an approach to managing each issue efficiently and deliver the specific aims of our business in relation to these issues.
- **Improvement:** it is important to explore areas of improvement and growth opportunities that will help make the system more efficient. We intend to devise mechanisms to fulfil our commitments, minimise occurrence of risks and strengthen current systems.
- **Monitoring:** Continuous monitoring helps us ensure that our policies, plans and decisions are implemented. It further helps us detect compliance and risk issues associated through our efficient feedback system, thus helping us improve our systems to support efficient and effective operations.
- **Reporting:** Our openness to disclosing our performance through periodic reporting at internal and external levels, has helped establish a high level of trust with our stakeholders while helping us adhere to our commitments and perform consistently to deliver on our commitments.

We ensure that our Sustainability Strategy is implemented consistently throughout our business and will continue to operate effectively at all our operations. To this effect, we are developing a Sustainability Framework that takes into consideration the key principles of various fundamental national and international guidelines and frameworks, such as,

- National Guidelines on Responsible Business Conduct (NGRBC) Principles
- United Nations Sustainable Development Goals (UN SDGs)
- International Finance Corporation (IFC) Performance Standards
- Organisation for Economic Co-operation and Development (OECD) Guidelines
- United Nations Guiding Principles (UNGP) on Business and Human Rights
- International Organization for Standardization (ISO)
- International Standards on Environment, Energy and Social Responsibility
- Principles of United Nations Global Compact (UNGC)

We conducted a thorough materiality analysis to identify the most important aspects for our stakeholders. The key topics identified through this exercise are determined to be our 17 focus areas which are supported by set of sustainability policies. We examined globally relevant guidelines and frameworks that can apply to our group operations and took into account the relevant requirements as applicable to our operations while formulating the policies. This ensures that we stay updated with the needs of a dynamic world and are aligned to making it a better place for everyone.



These focus areas have been identified after studying the magnitude of impact and the level of contribution we make to each one of them.

At JSW Cement, we have adopted the group sustainability vision, strategy and framework for implementation. The group policies as relevant to our operations and activities have been adopted with due approval of the JSW Cement board. All our sustainability interventions broadly fall under these focus areas and are managed and governed through the Sustainability Framework.

- To ensure the safety of employees, business partners and stakeholders, JSW Cement not only employs ISO certifications, but is adopting innovative approaches by combining digitalisation and sustainability at the core of its operations.
- JSW Cement is committed to provide a safe and healthy workplace for all. Various initiatives such as mandatory safety training for all employees and contract workers as per the pre-defined training schedule, mechanised material handling with minimum manual intervention to minimise chances of accidents, Safety Tool Box Talks to all the working personnel on a regular basis, mechanism to evaluate contractors' safety culture, are undertaken to ensure that our people, contractual workforce, vendors and other stakeholders comply with health and safety guidelines issued by the government, as well as our management. There is a robust process for safety performance monitoring and management. Mandatory individual and site level KRAs are linked to variable pay based on ESG/safety performance.
- JSW Cement has initiated various people-centric programmes, which are designed to supplement its efforts to achieve business outcomes, building capability, developing scalable processes by leveraging digital tools and maximising productivity.
- To ensure that sustainability is successfully implemented across the company, JSW Cement has regular Board Meetings wherein the Board members review the Sustainability interventions on a periodic basis. The management is cohesive and focussed on ensuring enhanced ESG performance and practices, maintaining high operational excellence and improving profitability.
- JSW Cement has one of the lowest carbon footprint in the industry. As per the latest Global Cement and Concrete Association (GCCA) - Get the Numbers Right (GNR) 2019 data, our Scope-1 Specific Net CO₂ emissions is ~35% of the global average and about 40% of the India average.

- JSW Cement believes in creating a circular economy and hence has positioned in a very unique place as majority of our products utilise slag and fly ash as raw materials, predominantly produced as waste material from the steel and power sector. Our Slag based cement portfolio range have the lowest clinker ratio which helps to conserve natural resources as well as energy.
- We are always exploring and innovating new areas for waste to wealth concept. Based on this, in FY 2020-21, 88% of our product portfolio comprises blended cements and GGBS, which use industrial waste and by product as raw materials. We currently have a thermal substitution rate of 4.23%, which meets the industry average and we have the roadmap to increase this to 30% by 2030.
- We also aim to maintain appropriate degree of product stewardship and transparency in our product related disclosures. We have carried out Environmental Product Declaration (EPD) for our products, including a Life Cycle Assessment (LCA). We have been awarded EPDs for JSW Portland Slag Cement and JSW GGBS complying with EN 15804 and ISO 14025 standards. JSW Cement takes pride in being India's first-ever cement manufacturer to receive the coveted GreenPro Eco labelling certification which is based on our efforts in reduction in CO₂ emissions, use of alternate raw material, efforts for enhancement of mine life, water table management, restoration of used mines, green belt development and biodiversity conservation.
- JSW Cement not only support its own employees, but also the local communities. Through the JSW Foundation, 2% average net profits are contributed towards the formulation, execution and monitoring of community initiatives, as per statutory norms. The Company's Corporate Social Responsibility interventions have reached out to communities across all our operations focusing on i) Education; ii) Health and nutrition; iii) Skill and livelihoods; iv) Water, environment & sanitation; and v) Community interventions such as developing public infrastructure and initiatives towards afforestation and water stewardship, among others.
- JSW Cement has also globally committed to RE100, EV100, EP100, UN Energy Compact, Global Principles of Heavy Industries. The reflection of the progress we make in integrating sustainability into our operations and business is demonstrated by the recognitions we get such as CII-ITC Sustainability Awards 2021, Greentech Energy Conservation Award 2021, Economic Times Iconic Brands 2021 award for our efforts in sustainability, innovation and digitalisation, Golden Peacock Eco-Innovation Award (GPEIA) 2020, etc.

2. Rationale for establishing a Sustainability-Linked Loan (SLL) Framework

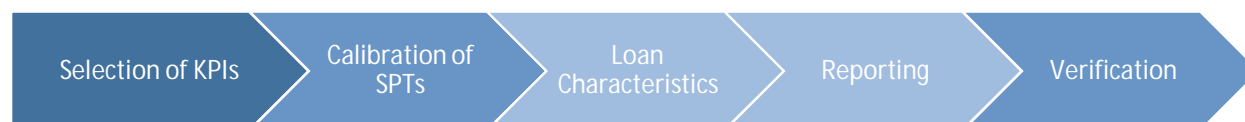
We recognize the role that finance can play in supporting the transition to a low-carbon economy, particularly for industries such as the cement (hard-to-abate) sector that have a key role to play in economic and social development, yet historically have been highly carbon-intensive.

As such, we have chosen to develop this Sustainability-Linked Loan Framework (the "Framework") to link our funding with our sustainability objectives and leverage ambitious timelines to achieve an improved sustainability performance that is relevant, core and material to both our business and the wider sector we operate in.

Our Framework provides a high-level approach to prospective Sustainability-Linked Loan issuances and investors should refer to relevant documentation for any securities transactions for additional details.

3. JSW Sustainability-Linked Loan Framework

This Sustainability-Linked Loan Framework has been developed in alignment with the Sustainability linked Loan Principles (“SLLP”) released and administered by the Loan Market Association, Asia Pacific Loan Market Association, Loan Syndications & Trading Association in March 2022. This Framework follows the five key components of the SLLPs:



DNV Business Assurance India Private Limited (DNV), has provided a Second Party Opinion on the Framework to confirm its alignment with the above Principles. This Second Party Opinion will be made publicly available alongside the Framework on our website, at <https://www.jswcement.in/>

4. Selection of Key Performance Indicator (KPI)

The credibility of the sustainability-linked loan market will rest on the selection of the KPI(s). For a cement industry, CO₂ emission is the most material topic and it is the centre of our sustainability strategy.

KPI: Net CO₂ emissions intensity (from Scope 1 & 2), calculated as kg CO₂ per tonne of cementitious material (kg CO₂/tcm)

Climate change has emerged as one of the paramount perils of the 21st century. The Paris Agreement and India’s resulting Intended Nationally Determined Contributions (INDC) assume particular importance in this context, driving calls for active decarbonisation for industries such as the cement sector that have historically contributed to large-scale carbon emissions.

India is the second largest producer of cement in the world. It accounts for more than 7% of the global installed capacity¹. India has a lot of potential for development in the infrastructure and construction sector and hence, the share of India is expected to increase to 16% of the global capacity by 2030². This means that the emissions are expected to rise significantly. It is essential that Indian cement manufacturers such as ourselves innovate and transition towards a pathway of deep decarbonisation.

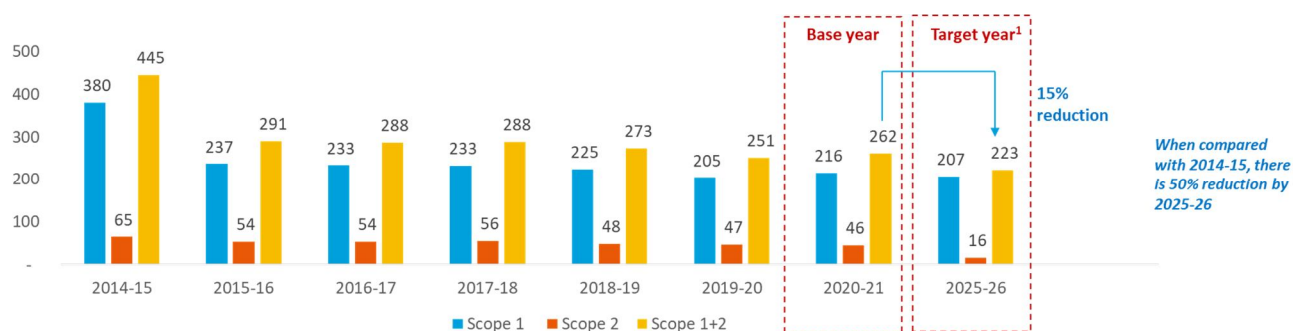
We also view the need to innovate and improve our environmental and carbon footprint as key, not just to achieving an environmentally sustainable footprint, but also to an economically sustainable and viable business model that allows us to maintain and develop our strategic position in the future. Given these growth expectations for domestic demand in the Indian context, we therefore view CO₂ emissions intensity as a particularly relevant and material metric that captures the need to balance our role in supporting the economic and social development of India with the imperative of improving our carbon footprint.

CO₂ emissions across Scope 1 and 2 are material for JSW cement. The historic CO₂ emissions intensity from all our cement plant operations in India, since FY2014-15 till the most recent year is provided below.

¹ <https://www.ibef.org/industry/cement-india.aspx>

² <https://www.worldcementassociation.org/images/info-graphics/001-World-Wide-Cement-Production.pdf>

Scope 1+2 carbon intensity (kg CO₂/tcm) - Base year and target year



The operating cement plants are i) JSW Cement Nandyal Works , ii) JSW Cement Vijayanagar Works, iii) JSW Cement Dolvi Works, iv) JSW Cement Salboni Works ,v) JSW Cement Jajpur Works and vi) Shiva cement works which comprise 100% of our production in India and are therefore the basis of our data collection for the baseline calculation. For emissions intensity targets, we have considered Salem plant also which became operational in the year 2022.

The calculation methodology used for quantification of CO₂ emissions follows GCCA Sustainability Guidelines (earlier referred to as “WBCSD CSI Protocol”) for Scope 1 emissions and CO₂ Baseline Database for the Indian Power Sector (latest available version at the time of disclosure) for Scope 2 emissions. The GCCA Sustainability Guidelines for the monitoring and reporting of CO₂ emissions from cement manufacturing are part of the guidelines developed to support compliance with the GCCA Sustainability Charter. This document, in conjunction with the GCCA Sustainability Framework Guidelines, provides guidance to GCCA members to fulfil the requirements of the GCCA Sustainability Charter relating to Climate Change and Energy. It is based on the CEN Standard EN 19694–34.

The assurance of GHG Emissions for the base year FY2020-21 was conducted by an external third party in accordance with ‘Limited Assurance’ procedures as per DNV’s VeriSustain™ protocol based on principles of completeness, accuracy and reliability. The verification applies a ±5% uncertainty threshold towards errors and omissions based on DNV Verisustain.

Scope 3 emissions have been estimated to be less than 25% of the total emissions and therefore not included in the KPI. However, the Scope 3 emissions will be monitored and efforts will be made to reduce the emissions by influencing the third party operations to be in line with our vision and strategy for reduction of GHG emissions such as encouraging our vendors and suppliers to use electric vehicles (EVs), minimising business travel by use of online meeting platforms, regular monitoring of the adherence to the supplier codes of conducts for the purchased goods and services, etc.

5. Calibration of Sustainability Performance Target (SPT)

SPT: Net CO₂ emissions intensity reduction (from Scope 1 & Scope 2) to equal or less than 223 kg CO₂ per tonne of cementitious material (tcm), equivalent to a reduction of 15% by FY2025-26 from a FY2020-21 baseline of 262 kg CO₂ per tonne of cementitious material (tcm)

	Observation date	Units	Base year: FY21	Target Year: FY26
SPT	31.03.2026	Kg CO ₂ /tcm	262	≤223

The global average scope 1 emissions of cement industry stand at 608 kg CO₂/ton of cementitious material in FY20³. As per the ambitions of GCCA, these emissions have to reduce by 20% from the baseline of FY21 by 2030. This amounts to direct emissions of 486 kg CO₂/ton of cementitious material in 2030.

International Energy Agency (IEA) has also developed a Net Zero Emissions (NZE) Scenario by 2050 for the global cement sector. This roadmap sets out a detailed ambitious emissions reduction pathways for the global cement sector, targeting net-zero emissions by 2050. Under the NZE scenario, the global average sectoral direct emission intensity needs to fall over 24% from the baseline of FY21 by 2030 to the levels of 450 kg CO₂ per tonne of cementitious material to be on the path to net zero in 2050⁴.

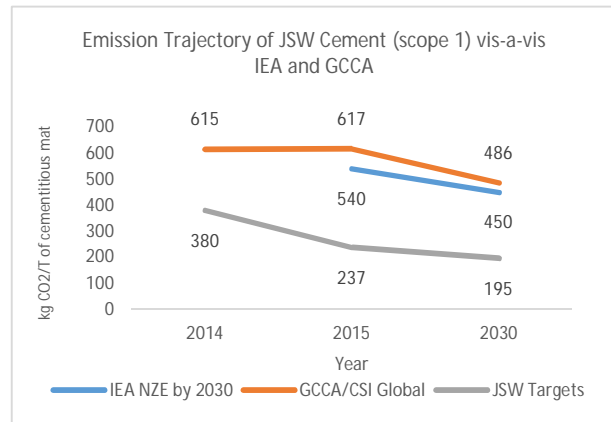


Figure 1

The reduction pathway for JSW Cement shown in Figure.1 significantly exceeds the reduction trajectory as per both the GCCA Pathway and IEA Net Zero Emissions Scenario, whereas our Scope 1 emission reduction target is to achieve a 51% reduction by 2030 vis a vis FY15 and aligning our net zero no later than 2050.

JSW Cement has achieved the lowest CO₂ emissions intensity footprint and we continue to maintain this by implementing the following key initiatives:

- Increase Thermal Substitution Rate to 30% from current levels of 4.23%.
- Electricity generation through enhanced Waste Heat Recovery Systems.
- On-site renewable electricity generation to reduce the Scope 2 emissions.
- Energy Efficiency measures through deployment of Best Available Technologies (BAT).

6. Loan characteristics

We will tie our performance with respect to the KPI to the financial structure of any Sustainability-Linked Loan(s) issued in reference to this Framework. Specifically, this will comprise a sustainability-linked feature that will result in a coupon adjustment if our performance does not achieve the SPT.

The proceeds of our Sustainability-Linked instruments will be used for general corporate purposes, unless otherwise specified in the relevant transaction documentation.

The relevant step-up margin amount and reference date for the chosen SPTs will be specified in the relevant documentation of the specific transaction (e.g. the Final Terms of the relevant Sustainability-Linked Loan).

CO₂ EMISSION INTENSITY OF JSW CEMENT IN 2030 ARE EXPECTED TO BE 60% LOWER THAN THE GLOBAL SECTORAL AVERAGES IN 2030 AS PROJECTED BY GCCA AND IEA NZE 2050 TRAJECTORY.

³ https://gccassociation.org/gnr/world/GNR-Indicator_71AGWct-world.html

⁴ <https://www.iea.org/reports/cement>

A Second Party Opinion on the Framework confirms its alignment with the SLLPs.

7. Reporting

We will disclose the progress made on the KPI and SPT at least once a year and in any case for any date or period relevant for assessing the trigger of the SPT performance. This will be made publicly available either in our annual reporting or as a separate document readily accessible on our website.

The reporting will also include an explanation of any methodologies and supporting documentation used to derive the performance figures against the SPT, as well as, where relevant and/or possible, an assessment of the positive impacts resulting from the progress against the SPT.

8. Verification

8.1 Pre-issuance

We have engaged DNV as an independent external reviewer to provide a Second Party Opinion and confirm the alignment of this Framework with the SLLP principles outlined above. For any material changes to the Framework, including an alignment to any updated versions of the SLLP as and when such versions are published, we will seek an another Second Party Opinion.

The Second Party Opinion will be made publicly available alongside this Framework on our website, [<https://www.jswcement.in/sustainability>].

8.2 Post-issuance:

Post issuance, on at least an annual basis until the last trigger event has been reached, a qualified external reviewer will be engaged to review the performance of KPI(s) against SPT. The verification will be made publicly available and published on the company website [<https://www.jswcement.in/sustainability>].

Disclaimer

This Framework may contain “forward-looking statements” with respect to JSW Cement and its subsidiaries’ business, results of operations, and financial condition and JSW Cement’s expectations or beliefs concerning future events and conditions. You can identify certain forward-looking statements because they contain words such as, but not limited to, “believes,” “expects,” “may,” “should,” “approximately,” “anticipates,” “estimates,” “intends,” “plans,” “targets,” “likely,” “will,” “would,” “could” and similar expressions (or the negative of these terminologies or expressions). All forward-looking statements involve risks and uncertainties. Many risks and uncertainties are inherent in JSW Cement’s industry and markets. Others are more specific to JSW Cement’s business and operations. The achievement of the expected results depends on many events, some or all of which are not predictable or within JSW Cement’s control. Actual results may differ materially from the forward-looking statements contained in this Framework. Any recipient of this Framework acknowledges that circumstances may change and the contents of this Framework may become outdated as a result. No representation is made as to the suitability of any sustainability-linked securities of JSW Cement to fulfil environmental and sustainability criteria required by prospective investors. This Framework does not create any legally enforceable obligations against JSW Cement; any such legally enforceable obligations relating to any sustainability-linked securities are limited to those expressly set forth in the legal documentation governing each such series of sustainability-linked securities. Therefore, unless expressly set forth in such legal documentation, JSW Cement’s failure to adhere or comply with any terms of this Framework, including, without limitation, failure to achieve any sustainability targets or goals set forth herein, will not constitute an event of default or breach of contractual obligations under the terms and conditions of any such sustainability-linked securities. Factors that may affect JSW Cement’s ability to achieve any sustainability goals or targets set forth herein include (but are not limited to) market, political and economic conditions, changes in government policy (whether with a continuity of the government or on a change in the composition of the government), changes in laws, rules or regulations, and other challenges.