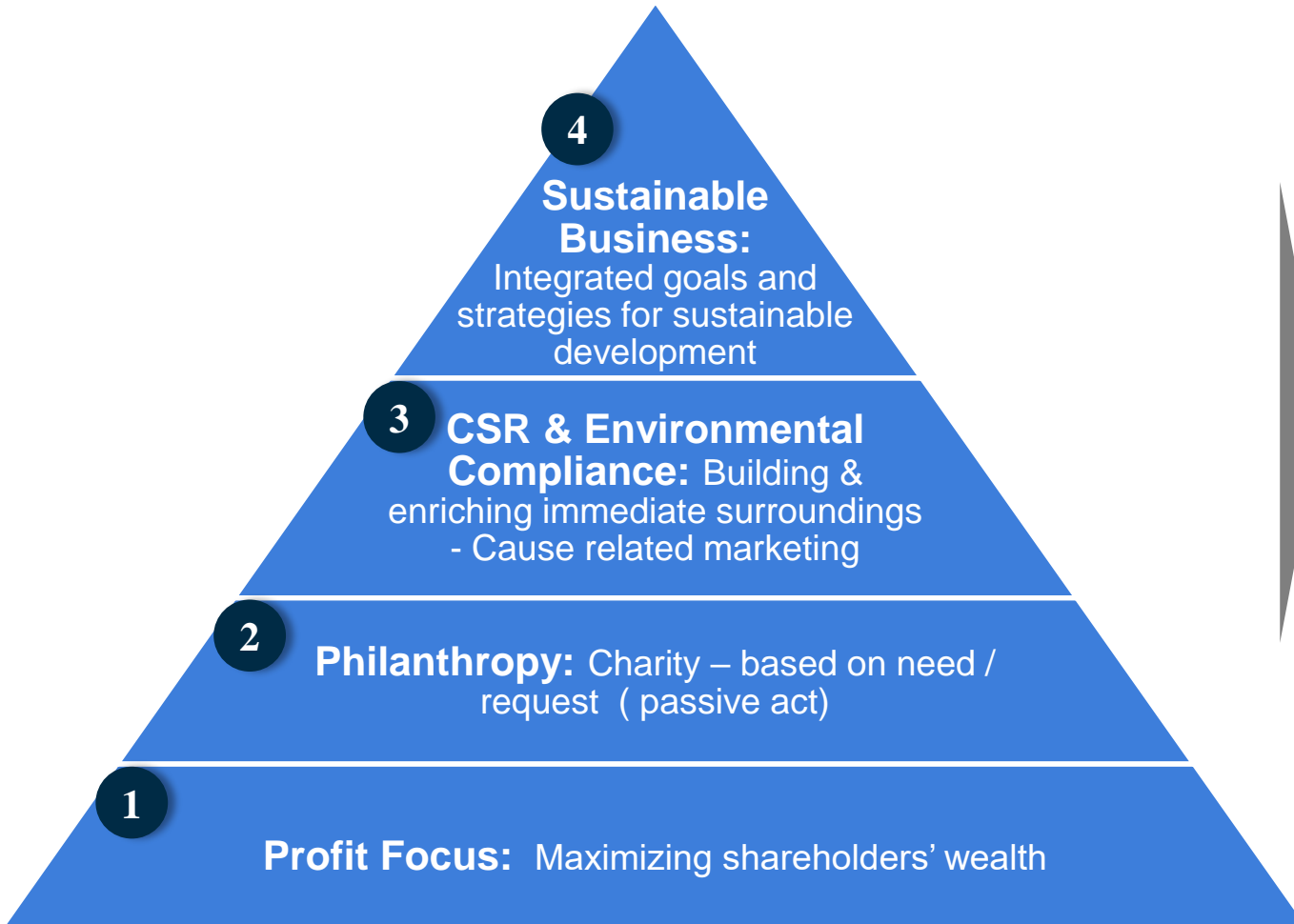


**Tata Steel India – Analyst Day 2017**  
**Sustainability Session | 5<sup>th</sup> October 2017**

*Statements in this presentation describing the Company's performance may be "forward looking statements" within the meaning of applicable securities laws and regulations. Actual results may differ materially from those directly or indirectly expressed, inferred or implied. Important factors that could make a difference to the Company's operations include, among others, economic conditions affecting demand/supply and price conditions in the domestic and overseas markets in which the Company operates, changes in or due to the environment, Government regulations, laws, statutes, judicial pronouncements and/or other incidental factors.*



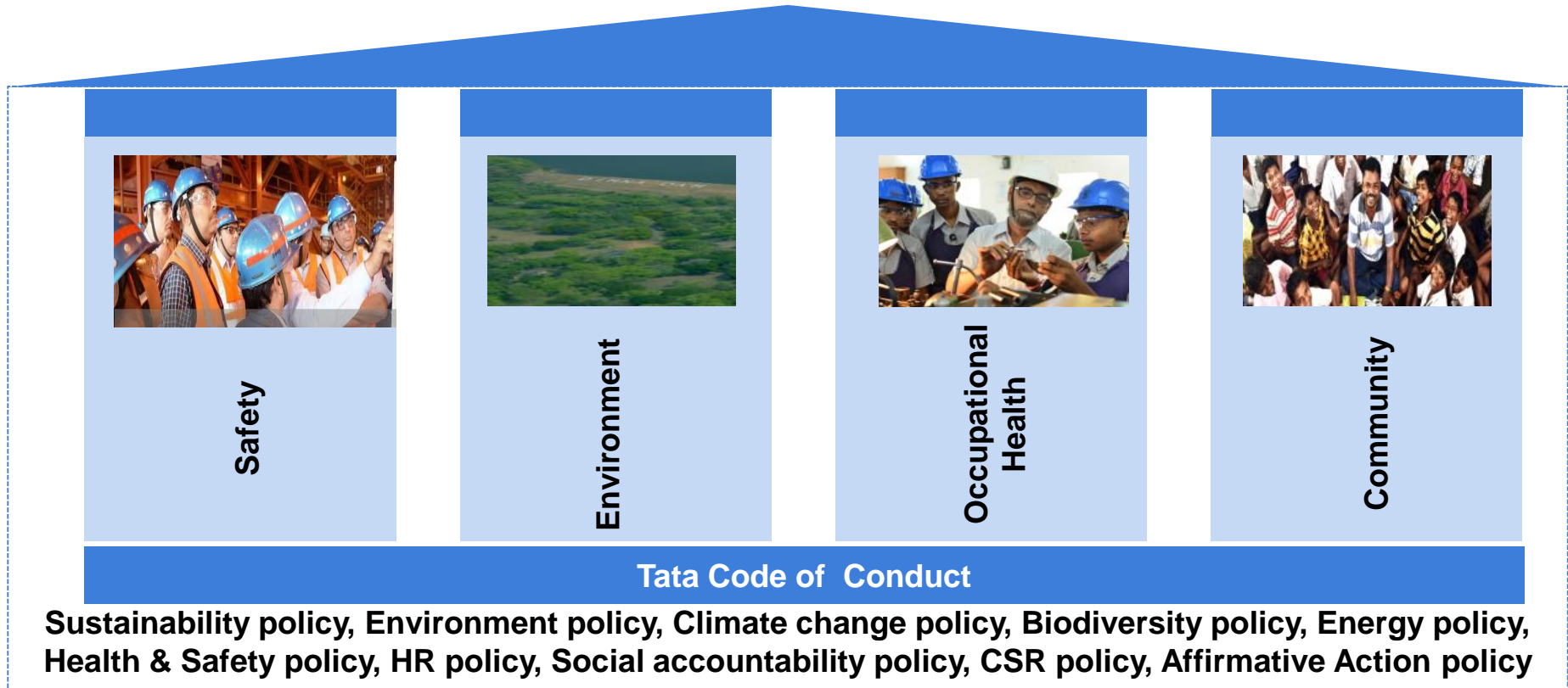
**Development that meets the needs of the present, without compromising the ability of the future generations to meet their own needs**

– *World Commission of Environment & Development (WCED)- 1987*



*“In a free enterprise, the **community is not just another stakeholder** in the business but the **very purpose of its existence.**” – Jamsetji Tata*

**TSG Vision: We aspire to be the global steel industry benchmark for Value Creation and Corporate Citizenship**





**Climate Change is firmly on the global agenda and businesses need to do more**

Build low carbon strategies



**Regulations will become more stringent**

Engage with policy makers; take challenging sustainability targets



**Extreme climate events will be the new normal**

Build capacities and recognize these as a risk to business continuity.



**Investors getting more active on ESG**

More Transparent Disclosures



**Competition for water is going to increase**

Build water resilience in operations and focus on water for society



**Expectations from companies will go beyond providing goods and services to societal problems**

Exceed the legal, ethical, commercial, societal expectations, develop responsible products and services

## Capital Invested on Environment in last 10 years > Rs. 2500 crores

- Water – ~Rs. 211 crores
- Dust – ~Rs.2305 crores

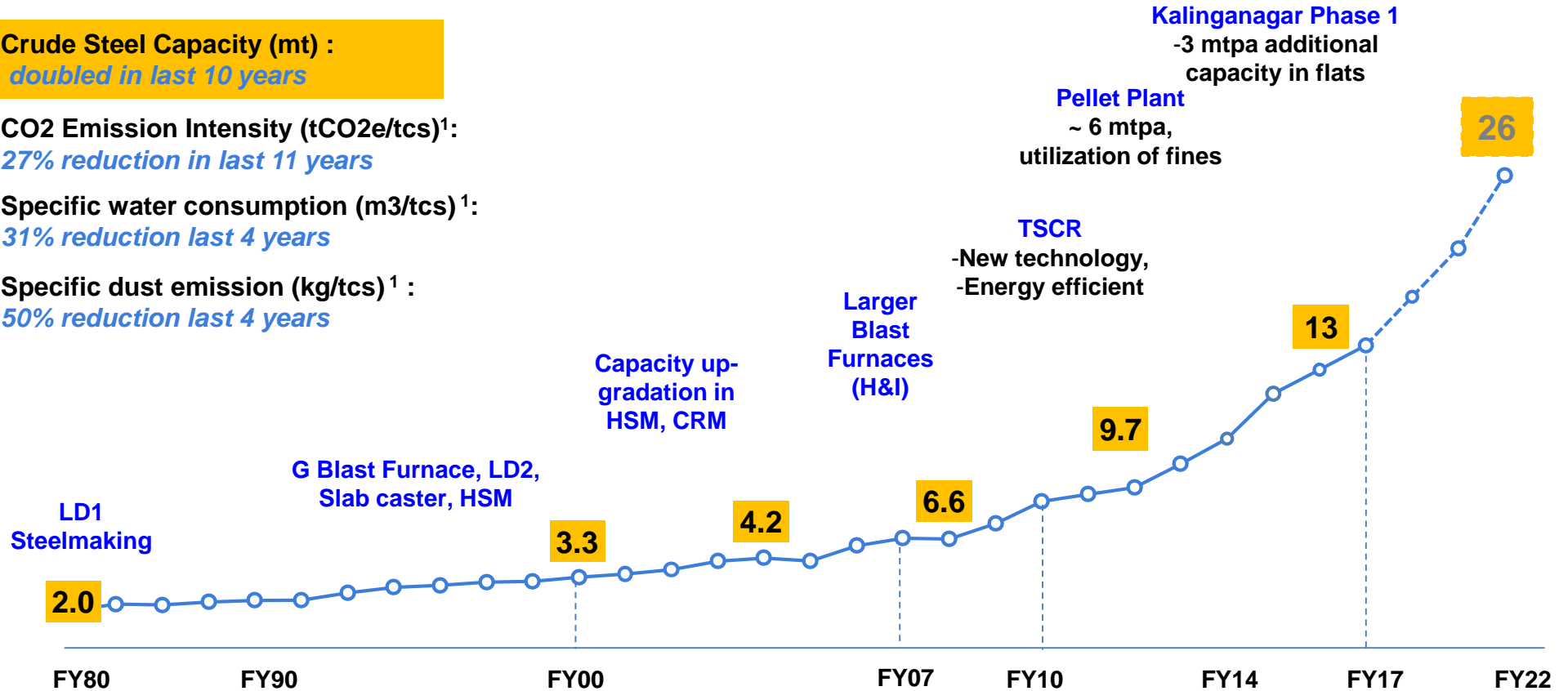
Organic and In-organic expansion in next 5 years

**Crude Steel Capacity (mt) :**  
*doubled in last 10 years*

**CO2 Emission Intensity (tCO2e/tcs)<sup>1</sup>:**  
*27% reduction in last 11 years*

**Specific water consumption (m3/tcs)<sup>1</sup>:**  
*31% reduction last 4 years*

**Specific dust emission (kg/tcs)<sup>1</sup> :**  
*50% reduction last 4 years*

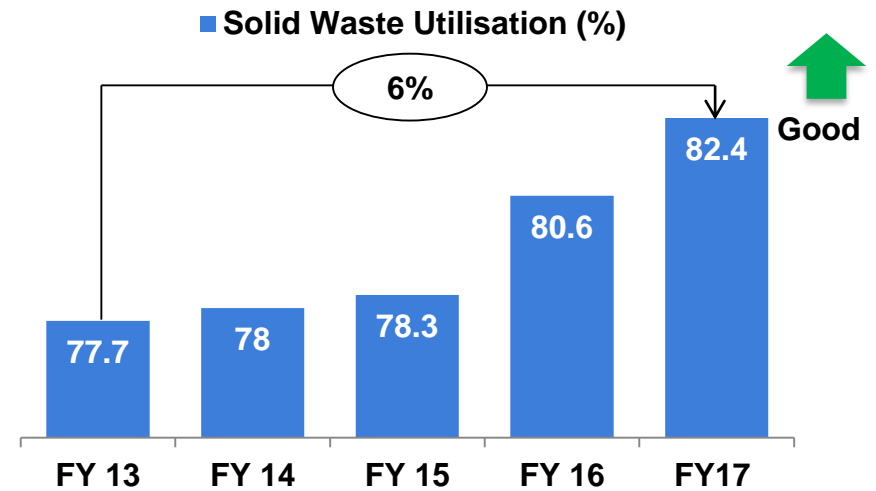
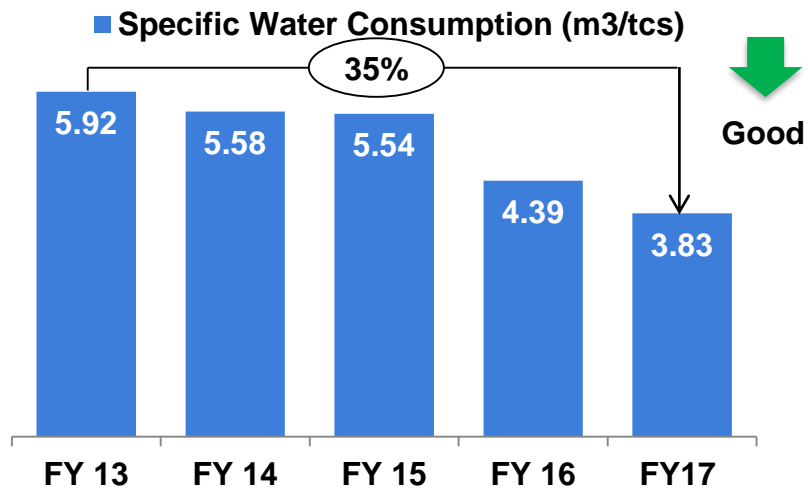
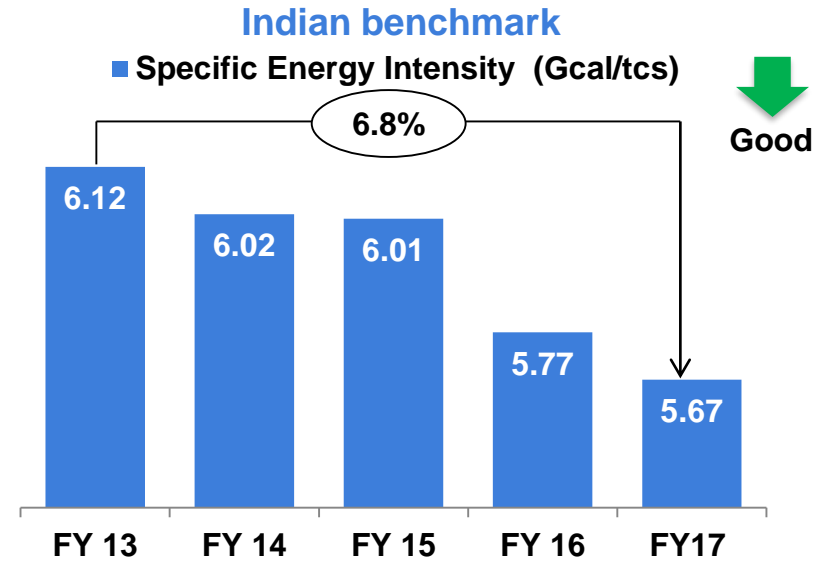
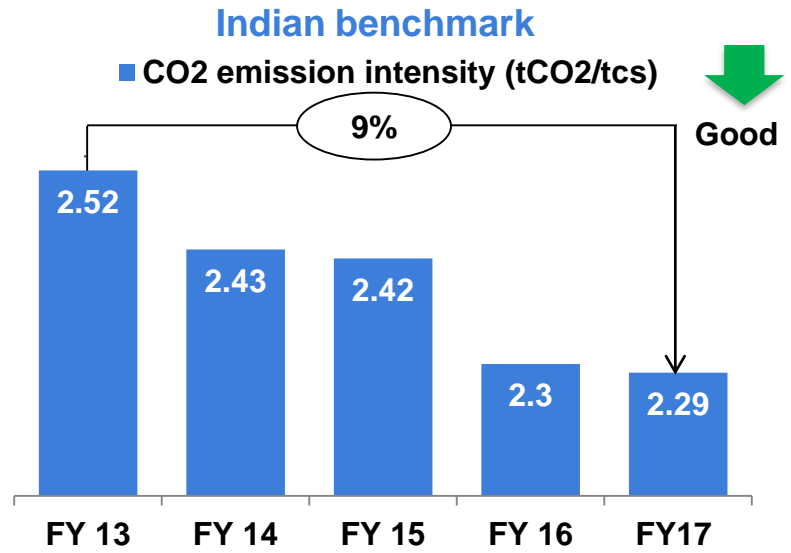


1. KPIs are for Tata Steel Jamshedpur only

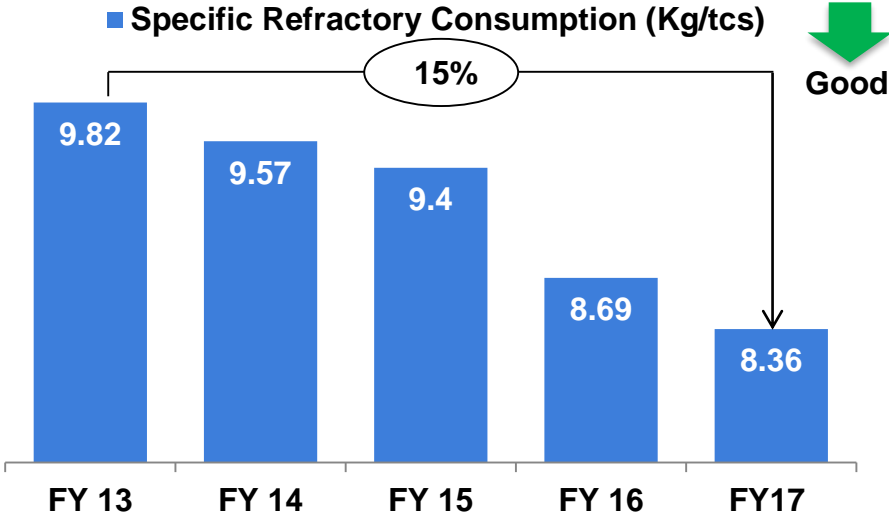
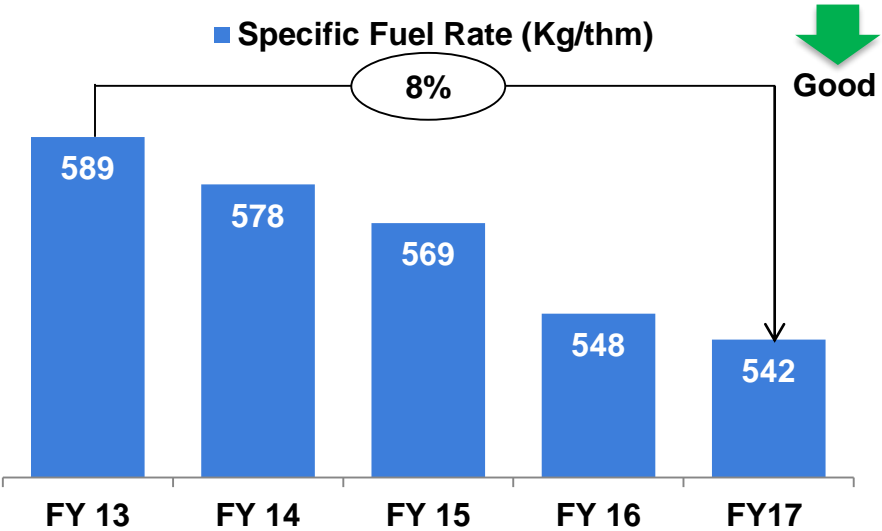
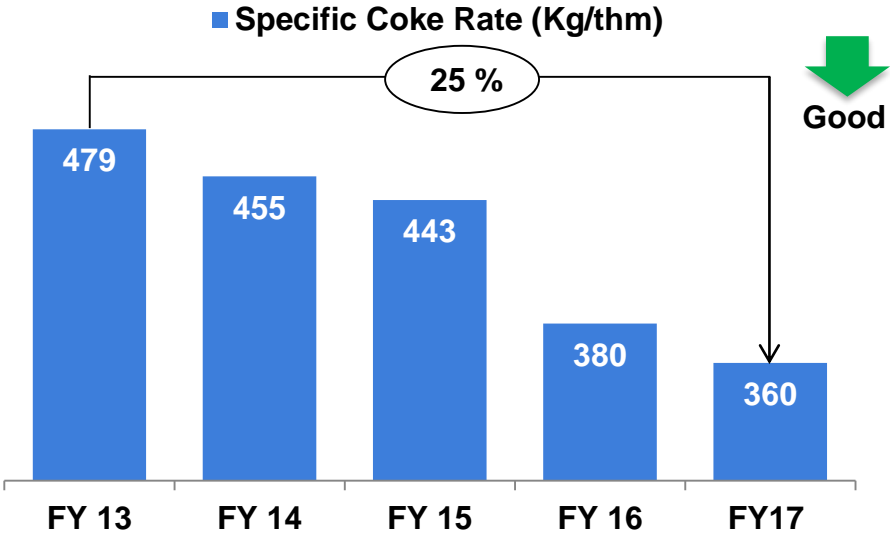
## Facilities designed for:

- ✓ Minimal carbon footprint: Large blast furnaces with high productivity and low coke rate; 100% by product gas based power plants
- ✓ Zero Liquid Discharge: Effluent Treatment Plants









## Raw materials

- ✓ Biodiversity management plans are in-progress
- ✓ 3 MW solar plant at Noamundi; Solar light pipes in mine buildings
- ✓ >10% reduction in water consumption
- ✓ Reduction in diesel consumption /ton of iron ore through fleet upgradation
- ✓ Large scale afforestation - >19 lakh saplings in an area of ~ 380ha in Hill 1&2
- ✓ Mined out Pits developed into parks and gardens; inactive OB dumps stabilized by laying grassing and plantation

## Iron & Steel Making

- ✓ Reduction in Coke Rate
- ✓ Only Sinter Plant in India with stack emission <40mg/NM3
- ✓ Energy conservation through Top Recovery Turbine- increase by 20%
- ✓ LD slag utilisation in road making and agriculture

## Corporate

- ✓ Internal Carbon (Shadow) Pricing
- ✓ Greenco assessment by CIIGBC – Jamshedpur Works assessed as Platinum rated
- ✓ Revision of Energy Policy to include renewable energy
- ✓ Supplier engagement - sustainability Expo
- ✓ Life Cycle Assessment



- Reporting on 8 Sustainability indicators
- Access to global steel industry data for benchmarking



- Founding Member of UNGC
- Communication on Progress on the 10 Sustainability principles
- Capability building through access to best practices, training programs/webinars on Climate Change



- Platform to showcase initiatives like:
  - Tata Steel – Integrated annual report in the annual Global Summit,
  - Inclusion of Tata Steel in story for piloting of Natural Capital Protocol



- Instrumental in the formation of Environment Management Division in CII
- Founding member of Business for Human Rights
- Capability building through access to training programs
- Platform to showcase initiatives



- Access to training programs, webinars etc.

## Managing Director:

- Representing Tata Group at the World Economic Forum Alliance of CEO Climate Leaders

## Company Secretary:

- Member of the IR Panel at the International Integrated Reporting Council

## Group Executive Director:

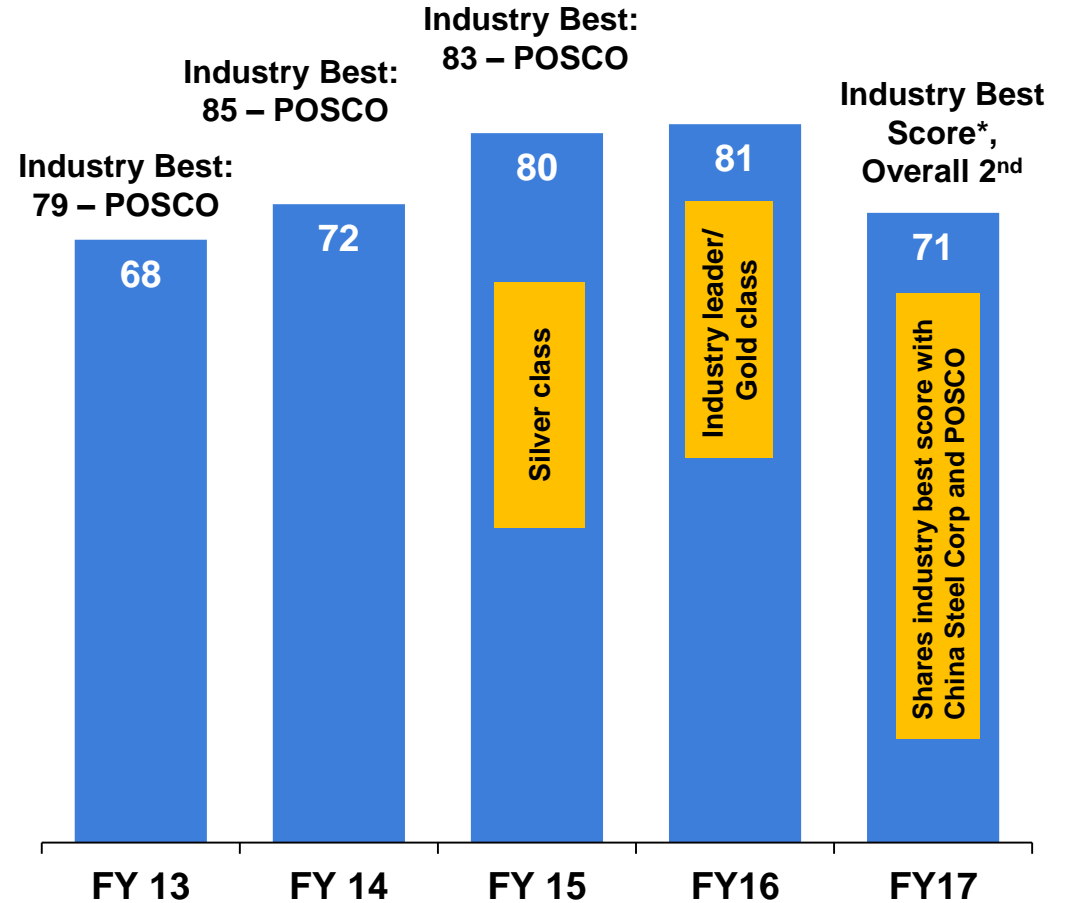
- Member of the International Integrated Reporting Council
- Leader of The Indian <IR> Lab
- Lead Member at Taskforce For Climate Related Financial Disclosures

## Chief Corporate Sustainability:

- VP For UNGC India Network (Eastern Region )
- Member of the WSA Sustainability Reporting Expert Group
- Co-Chair of CII Eastern Region Sustainability Task Force

Disclosures	
<p><b>Environment &amp; Social:</b> 2001-2015</p> <p><b>1<sup>st</sup></b></p>	<p><b>Integrated Annual Report:</b> FY16 Onward</p> <p><b>1<sup>st</sup></b></p>
<p><b>CO2 (2006), Water(2014), Supply Chain (2012) Onwards</b></p> <p><b>DRIVING SUSTAINABLE ECONOMIES</b></p>	<p><b>Environment, Social, Governance: 2012 Onwards</b></p> <p><b>Dow Jones Sustainability Indexes</b></p>

## DJSI assessment trajectory



\* Industry Level Score dipped in FY17 with change in questionnaire with more focus on Climate Change

- ✓ Adjudged as **Industry Leader** by **Dow Jones Sustainability Index (DJSI)** in 2016
- ✓ Consistently amongst the **top rated Steel Companies** in Climate Change – **CDP**
- ✓ Jamshedpur Works assessed as “**Platinum Rated**” by **CII Green Business Centre in 2016** – First Integrated Steel Company and only company in Tata Group to be rated Platinum
- ✓ Tata Steel Jamshedpur Works and Noamundi Iron Ore Mines recognized by **CII – Triveni Institute for Excellence in Water Management** in 2017
- ✓ Noamundi Iron Ore Mine (2016) and Joda East Iron Ore Mine (2017) awarded the **SDF 5-star Rating by Ministry of Mines**
- ✓ **Winner of CII-ITC Sustainability Business of The Year award 2014** – only company to get this award





## Climate Change Mitigation

- ✓ **Mitigating Carbon footprint impact : Reduction of emissions intensity , Offsetting through Renewable energy**
- ✓ **Resource efficiency - Water positivity, Resource optimization**
- ✓ **Supply Chain Sustainability : Mitigating CO2 and water footprint**



## Waste Management

- ✓ **Leveraging Circular Economy to extract Value from waste**



## Licence to operate

- ✓ **Make the stakeholders understand the value that we deliver**
- ✓ **Sharper focus on CSR**
- ✓ **Ensuring Human Rights aspects across Supply Chain – SA8000**



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