

## COMMUNICATION ON PROGRESS- 2012

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**TATA SPONGE IRON LIMITED**  
**Bileipada, At/P.O.- Joda, Keonjhar, Orissa- 758034**

**Message from the Managing Director**

Ladies & Gentlemen,

In continuation of my communication last year, I take immense pleasure in submitting our 5<sup>th</sup> Communication on Progress to the UNGC Society.



The year 2012 threw up several socio-economic challenges and also new opportunities. We believe that our endeavour in upholding the values of universally declared ten governing principles and the manner in which we conduct our business took us through these turbulent and challenging moments.

In line with our Tata Group ethos, Tata Sponge believes in ***“what has come from the people, must go back to them many times more”*** thereby institutionalizing a well defined comprehensive approach for community development, that is also linked to various national schemes and Millennium Development Goals. Acknowledging the fact that the society is not only a stakeholder but the very central purpose of our enterprise, the Company is committed to improving the quality of life of the community it serves. As you go through the communication, you will find that over the years the Company has not only made notable progress in creation of sustainable livelihood, especially for the marginalized section of society but has also meaningfully contributed in bridging the socio- economic disparity gap.

While the Company has adopted environment-friendly technologies in all its operations, and is a benchmark in energy consumption in the sponge iron industry, various other small but significant innovations have greatly contributed in reducing CO<sub>2</sub> emission. Tata Sponge continue to play a leadership role for advocacy on climate change and global warming.

*It is noteworthy to mention here that Tata Sponge is the 1<sup>st</sup> Sponge Iron Plant in India to have won the JIPM TPM Excellence Award (Category-A)*

As the winds of change have started having impact on the overall business scenario in the country and across the globe, with low industrial growth, high inflation and growing unemployment, we do need to reaffirm our faith in values & business practices. Being part of the Tata group, Tata Sponge is committed to adhere to the Tata Code of Conduct and its Corporate Governance framework. The company shall ensure adherence to the highest standards of ethical behavior and shall create enduring value for all stakeholders.

I hope that you would find the communication meaningful.

Suresh Thawani  
(Managing Director)

Tata Sponge is in a process industry manufacturing sponge iron from its three rotary kilns, and in the process also generates power from the waste heat recovered from the kilns during sponge iron production. Current capacities of the existing facilities are 390,000 TPA of sponge iron and 26 M W of power from its 2 modules of co generating plants. The registered office-cum-Works is located in the north-western state of Odisha at Bileipada, in the district of Keonjhar, India.

While consolidating it's leadership status in sponge iron making, and to go ahead in the value chain, the company's Vision is to become a low cost steel manufacturer with a production capacity of 1.5 million ton. The Vision also underscores company's resolve of "becoming a responsible corporate citizen" and in line with Tata Group's ethos of "what has come from people must go back to them many times more", the company started massive tree plantation in & around the proposed factory location, even before a ton of steel and cement was used for the construction of the plant.

As a mark of company's values towards "Social Equity" and the culture of "Welfare to surrounding community" a dedicated Corporate Sustainability department of the company identifies the needs and aspiration of the local community, develops & implements social welfare & periphery development programs in Education, Drinking Water, Health & Sanitation, Agriculture, Entrepreneurship building capabilities and explores Employability opportunities through training programs & workshops. Besides, the organization has also promoted a trust namely "Vidya Shakti Niyas (VSN) whose members are mostly officers' spouses, acts as an extended arm of the company's endeavor to meet the socio-economic challenges of this region.

Thus the Company's Corporate Social Responsibility network covers an area of 8 KM radius of the plant, reaching out to around 32000 villagers in thirty eight villages of 5 surrounding Gram Panchayats.

Education being one of the key elements for growth, Tata Sponge has been spending a considerable amount of time & resources right from its inception for the promotion of education and health care. Over the years, the company has been successful in creating a radical transformation in its vicinity, with higher rate of literacy, lower incidence of mortality on health grounds, large number of jobs & business opportunities for every section of society. Besides creating avenues for employability through training & learning, the Company is promoting entrepreneurship for the youths specially belonging to the marginalized section of society. Thus, Tata Sponge's effort to bring about a social transformation and work towards inclusive growth has been a turning point in creating a difference in lives of the surrounding areas.

An overview of various development projects undertaken over the years highlights the outcome of Company's intent and efforts in bringing about this change.

### EDUCATION:

- **Infrastructure support to Schools & Anganwadi Centers i.e.**

1. Construction of additional class rooms/ boundary walls /kitchen-cum dining units
2. Repair / renovation of Schools & Anganwadi Centers
3. Construction of Science / Computer Lab for Bileipada and Anseikala High Schools & Chandrasekhar College, Champua



- 4. Provided 1050 nos. dual bench desks in various schools
- 5. Provided computers/laptop ,furniture, library books, to High Schools ,college, and GP offices
- 6. Provided Water filters in primary schools



Facilities provided	Upto Dec. 12
New School building	11
Building renovation	9
Kitchen-cum-dining unit	3
Dual bench desk	1050
Boundary wall	17
Almirah / Book shelves	21
Water Filters	15

- **Scholarship / Financial aid**
  - 1. Tuition fees for poor students
  - 2. Scholarship to poor meritorious students in Primary Schools, ITI s and other Technical / professional courses
  - 3. Skill upgradation technical training courses

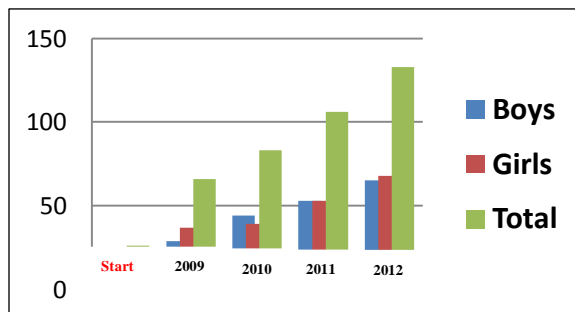
Scholarship / Financial Aid	Level	Beneficiary
Financial support to meritorious SC/ST students pursuing professional courses, through FAEA	National	1
Financial support to a local student for pursuing a 4 yr degree course at NIT, Patna	National	1
Tuition fee to Teachers for taking extra coaching classes for improving the standards of SC/ ST students in a nearby college	State	>50
Financial support for pursuing 3-year diploma engineering course in Elect. Engineering from Keonjhar Engineering College, Keonjhar	State	1
Financial support for Financial Mgmt course in ICFAI, Bhubaneswar	State	1
2-year diploma course in Computer Science to a Female student at Polytechnic Inst, Berhampur	State	1
2 years Technical course in Industrial Training Institutes (ITI)	State	26
Complete waiver of tuition fee for nursery students	State	10
Financial support to 1 ST student for her college academics	State	1
Financial support to 1 ST student for his 2 year MBA Course at Hyderabad University	National	1
Financial assistance to 1 ST student for 3-year diploma course at OSME, Keonjhar	State	1
Financial support to 1 ST student for 4-year degree engineering course at Bhubaneswar	State	1
Scholarship for poor students in Pry. Schools	District	7
Tuition fees for Extra Coaching Classes in +2 College	District	312





- **Adoption of village School:**

In order to minimize school dropouts and to encourage children from the village to attend school, the Company has adopted a School project at Lahanda Munda Sahi village where 100% of the students belong to the Schedule Tribe (Munda) community. The school started in the year 2009 with only 26 students and over the period today the strength has increased to 133 students and the school currently conducts classes upto Class-IV. The average attendance of >90% and there has been no dropouts.



The Company's intervention has not only increased the total strength but has also augmented the number of girl child. Today an equal no. of girls are attending schooling.

**DRINKING WATER:**

The Company over the years has provided the following safe drinking water units in and around the 38 villages, benefiting 32000 villagers :

**Tube wells: 73    Ring wells: 41    Deep bore wells: 15**

Besides the Company undertakes preventive maintenance of all these drinking water units for availability of water round the year.



**HEALTH & SANITATION :**

- **Medical Camps:**

Tata Sponge initiated free medical services for the community a few years ago by conducting weekly mobile health check-up camps in the villages where a large number of villagers, specially women and children are treated for their common ailments. Those requiring specialized Medicare are referred to hospital/specialist for further treatment. All patients in the camps are given free treatment and medicines.



- **Malaria eradication Programs:**

The district of Keonjhar is known for high Malaria prone zone. To meet this challenge of high cases of mortality rate due to mosquito bites, the Company has distributed around 15000 medicated mosquito nets for each individual house hold besides spraying of mosquito oil/DDT and periodical fogging in the surrounding.

- **Sanitation :**

In line with Govt. of India's Rural Sanitation Programme and to propagate healthy sanitation habits / discourage open defecation, the Company provided 54 nos. rural household toilets and plans to provide another 46 during the coming years. It has also provided toilets blocks at Public Health Centre Basudevpur, Anseikala High School & Lahanda Munda Sahi Pry. School.



- **Awareness Camps:**

For public awareness mass meetings & counseling camps, awareness programs on HIV/AIDS, Family planning are held in villages.



**OTHERS:**

- **Promotion of Culture / Sports & Tribal heritage:**

In order to preserve the cultural heritage of the people of this tribal belt, various cultural events/ HO dance competition, sporting tournaments i.e. archery and musical festivals are promoted in the community centers. Musical instruments & sports equipments and other recreational items are given to the schools and youth clubs, besides sponsoring athletic meet and annual football matches.



*Community Centre at Lahanda*



*Football tournament at Sialijoda*



*Open Cultural stage at Badahundula*

- **Overall**

The Company has created various infrastructure facility for the villagers as well as for general public such as :

1. Construction of Passenger Rest sheds
2. Construction of Bileipada Police Beat House
3. Repair of Birikala Panchayat Road
4. Installation Solar street lights and supply solar lanterns
5. Construction of bridge over Sona river linking Birikala to Bileipada village



- **Skill development and entrepreneurship building:**

For the creation of Sustainable livelihood, the company in conjunction with Vidya Shakti Niyas(VSN) – a Company supported charitable organization as promoted various Self Help Groups (SHGs) to develop rural entrepreneurship through training and providing initial financial assistance for tailoring, stitching, coal briquette making, Phenyl, Soap & agarwati making, poultry farming and seasonal



vegetable cultivation. At present there are 7 such SHGs with each having 10-12 ladies members.

Under the skill development program a driving training institute is operation for the rural youth. The candidates after successful completion of 6 week driving training course are given licence from the District Transport Office. In the 1<sup>st</sup> 3 years term, of the driving school 307 youth were imparted training who were now self employed. In the 2<sup>nd</sup> term, beginning Jun.2012, already 96 candidates in six batches have undergone training.



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CSR POLICY	AFFIRMATIVE ACTION POLICY
<p>Tata Sponge recognizes the fact that the long-term future of the company is best served by addressing the interests of all its stakeholders in a balanced manner.</p> <p>As a responsible corporate citizen, Tata Sponge will consistently strive for opportunities to meet the expectations of its stakeholders by pursuing the concept of sustainable development with particular emphasis on environment care &amp; periphery development and in the course, promote national interest.</p> <div> (Suresh Thawani) Managing Director</div> <div>1<sup>st</sup> April 2007</div>	<p>Tata Sponge Iron Limited believes in social equity. The company adheres to the principle of equal opportunity, irrespective of caste, whether in recruitment or career advancement within the organization.</p> <p>The company is also committed to directly conducting or supporting initiatives to ensure an equal footing for socially and economically disadvantaged sections in the country at large, and specifically the scheduled caste and scheduled tribe communities.</p> <div> (Suresh Thawani) Managing Director</div> <div>23<sup>rd</sup> July 2007</div>



Principles

Principle – 1

Business should support and respect the protection of internationally proclaimed human rights

SEWA  
(Organisation Culture)

- ❖ Safety above all
- ❖ Environment friendly operations
- ❖ Welfare of employees & surrounding community; &
- ❖ Adaptability to changing scenario

Company’s Policy

- The Company’s various policies in this direction address all the issues pertaining to protection of the human rights of its direct and indirect employees as well as for the people of its surrounding community.
- The Company’s Organization Culture (SEWA) forms the core values & support in complying the requisite mandate.
- Periodical review of our HR practices at various forum to ensure that human rights are not violated.
- Strict adherence to the all statutory requirement as per the law of the land regarding working hours and welfare amenities
- Adherence to the clauses defined in the Company’s Standing Orders
- Implementation of requirements of TATA Code of Conduct in letter and spirit.
- Strict implementation of payment of prescribed wages following the principles of non-discrimination.

Key Results & Measurement

- ✓ HR Committee consisting senior management team and headed by the Managing Director reviews all HR policies of the company quarterly.
- ✓ Regular interaction with representatives of Union to discuss various key HR/IR issues.
- ✓ Working hours of both permanent employees and contractors’ labour is strictly adhered to as per Factories Act & Rules
- ✓ Plant is operated in three shift basis, each shift runs for eight hours.
- ✓ Subsidized canteen facility has been provided to company employees as well as to contract workers. Rest Rooms, wash rooms and Crèche have been provided.
- ✓ We have certified works standing orders wherein no person below the age of 18 years is allowed to work in plant and non-works area.
- ✓ Tata Code of Conduct has been communicated to each employee of the company. To create awareness training classes are conducted regularly to reinforce its clauses.
- ✓ Two training modules - one for permanent employees titled “JAGRUTI” for and another for contractors’ workforce titled “ADHAR” have been designed to create awareness. Clauses of TCoC are discussed in departmental meeting every month as well as in the Divisional and Apex Council of Excellence meetings in every quarter.
- ✓ Review of any Human Right issues is done in HR committee and Sexual Harassment committee. Policies and guidelines are formulated for avoidance of any violation.
- ✓ All payments regarding wages and allowances to contractors’ labour are done in the presence of authorizes representative of the company.
- ✓ It is ensured that equal wage (for same nature of job) is paid to the workmen irrespective of race, caste, creed and gender.

VALUES	Behaviour it reflects	Virtues that we live
Trust	Delegation of authority	Empowerment
	Keeping commitments	Account-ability
Respect	Give due importance	Courteousness, politeness, acknowledgement
Social equality	Equal opportunity employer	No discrimination in wage / employment / benefits
Integrity	Ethical transaction	Transparency / TCoC
Loyalty	Dedication	Organisation well being above self



“JAGRUTI” Session



**Principle – 2**  
Make sure they are not complicit to human rights abuses

- The Company being a Tata Group member has institutionalized Tata Code of Conduct.
  - The Company’s Corporate Social responsibility wing affirms our commitment to observe the fundamental tenets of human rights.
  - Periodical review of decisions taken in bipartite / consultative council meetings to avoid any deviation.
- ✓ Quarterly meeting with Union representatives and Management is conducted to address HR and IR issues.
  - ✓ Before engaging any agencies in our business we thoroughly verify their ethical practices.
  - ✓ We have various bipartite committees representing management and associates to resolve various issues. We have committees viz JCCM, JDCs, Welfare committee, safety committee, canteen management committee. Town development committee, grievance committee, house allotment committee, medical committee and provident fund committee. (Ref. Table-1)
  - ✓ For inclusive growth of the surrounding community the company has undertaken various initiatives i.e. education, health, drinking water & creation of sustainable livelihood with special focus on development of ST/SC population under its Affirmative Action programme
  - ✓ We have statutory committees like safety, canteen and health that review and resolves various grievances related to statutory.
  - ✓ To ensure safe working condition, we have processes to identify hazards on regular basis and assuring corrective and preventive actions to the identified hazards. Imparting regular safety training to the work force. Periodical inspection of workplace is followed by line Management.
- Compliance to statutory requirements

Sl	Name of the Committee	Number of Members		Frequency of Meeting
		Management Representative	Union Representative	
1	Joint Consultant Council of Management at Apex level	8	8	Half-yearly
2	JDC (Works Level)	5	5	Quarterly
3	JDC (Non-Works Level)	5	5	Quarterly
4	Welfare Committee	5	5	As and when required
5	Safety Committee	8	8	Monthly
6	Canteen Committee	5	5	Quarterly
7	Provident Fund Committee	4	4	Quarterly
8	Welfare Fund Committee	3	3	As and when required
9	House Allotment Committee	4	3	As and when required
10	Rural Development Committee	4	4	Quarterly
11	Medical Committee	3	3	As and when required

Table - 1





<p><b>Principle – 3</b> Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.</p>	<ul style="list-style-type: none"><li>• All workmen are treated with respect &amp; dignity and is committed to provide equal opportunity &amp; freedom from discrimination for all our employees &amp; contractors.</li><li>• The company has recognized Union &amp; any employee can become a member of the same.</li></ul>	<ul style="list-style-type: none"><li>✓ Focus is given to settle common issues of Associates through collective bargaining forum being represented by equal representative from Management &amp; Associates. Several bipartite agreements are arrived at through this kind of forum.</li><li>✓ In the process of participative management council equal participation of Management &amp; Trade union representatives are ensured by the management.</li><li>✓ Grievances of all individuals are recorded and redressed within a time frame.</li><li>✓ All statutory labour laws are implemented and we have a process to review the statutory compliance by a core committee constituted by the Management.</li><li>✓ There has been no industrial unrest in the company for the past 25 years due to mutual co-operation coordination and understanding between the Management &amp; the Union.</li></ul>
<p><b>Principle – 4</b> The elimination of all forms of forced and compulsory labour</p>	<ul style="list-style-type: none"><li>• There is no forced or compulsory engagement of labour in Tata Sponge. The Grievance redressal committee &amp; Ethics counselor monitor violation laid down policies.</li></ul>	<ul style="list-style-type: none"><li>✓ Engagement of contract labourer / indirect employment is in line with contract labour regulation &amp; abolition Act. There is no violation or any forced / compulsory entry of labour force inside the factory premises.</li><li>✓ The Company’s SHEQ (Safety, Health, Environment, Quality) Management system are integrated with ISO-9001,ISO-14001 and OHSAS-18001 ensures that the requirements are met.</li><li>✓ The security personal deployed are also trained on human rights issues pertaining to security procedures i.e. Right of search, right of detention, weapon handling, fire fighting &amp; rescue operation etc.</li></ul>

OCCUPATIONAL HEALTH & SAFETY POLICY

Tata Sponge Iron Limited is committed to provide a safe workplace to all persons working under its control by taking steps to prevent injury and reduce risk of occupational ill health.

The Company shall continually strive to improve its Occupational Health & Safety performance by setting & pursuing relevant objectives and meeting all legal & other requirements in the area of production and marketing of sponge iron & power.

The Company shall achieve these through awareness, training and effective communication among all interested parties.

The Company shall review this policy at periodic intervals.

26<sup>th</sup> Nov, 2008

(Suresh Thawani)  
Managing Director



<b>Principle – 5</b> The effective abolition of child labour	<ul style="list-style-type: none"><li>• All contractors / suppliers are sensitized for non deployment of child labour / under aged workmen.</li><li>• Strict monitoring at all entry points to the works and non-works premises.</li></ul>	<ul style="list-style-type: none"><li>✓ Our hiring policy reflects transparency and ensures that no child labour is hired and all laboureres over 18 years of age are only permitted to work.</li><li>✓ Verification of age of all Contractors’ workmen is done prior to issue of work permit entry and to ensure non-entry of any person below permissible age. Security personnel check at the gate on daily basis to ensure that no authorized person enters into the work premises.</li><li>✓ Eradication of child labour is ensured by the process of restriction in hiring as well as readmitting school dropouts through CS activity.</li></ul>
<b>Principle – 6</b> Eliminate discrimination in respect of employment and occupation.	<ul style="list-style-type: none"><li>• In line with TCoC clause-4, the company has a clear &amp; transparent policy &amp; does not discriminate on the basis of race, caste, religion, colour, ancestry, marital status, sex &amp; nationality.</li></ul>	<ul style="list-style-type: none"><li>✓ Company’s hiring process evidences that no discrimination prevails on account of age, sex, locality, caste, creed, religion.</li><li>✓ Company doesn’t discourage for employment of physically challenged people.</li></ul>

HUMAN RESOURCE POLICY

Tata Sponge recognises that its human capital is its most important asset. It will pursue innovative HR processes for attracting, developing and retaining talent for business competitiveness.

Tata Sponge commits itself to develop a culture of driving performance, motivation and continuous learning for employee engagement. It will adopt necessary processes fostering a climate of team work, transparency, fairness & equity in all its dealings with its employees.

Tata Sponge affirms in positive discrimination for employment from the marginal section of society. Keeping the eligibility criteria equal, preference is given to SC/ST candidates.

Date : 1st April, 2011

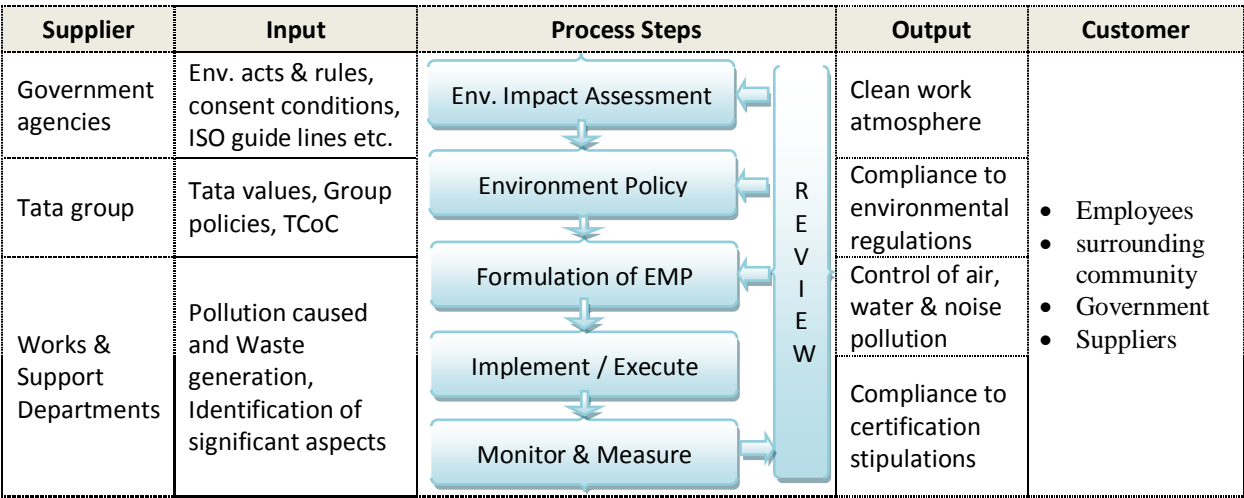
(Suresh Thawani)  
Managing Director

Principle – 7

Business at Tata Sponge - supporting a precautionary approach to environmental challenges

Environmental policy and Environmental Management System at Tata Sponge Iron Ltd. address the twin objectives of environmental protection and maintaining ecological balance. As a part of organization’s Environmental Management system, the company conducts EIA (Environmental Impact Assessment) studies by expert external agencies. Based on the EIA observations and outcome of senior management reviews, appropriate strategy is formulated and deployed. Necessary review mechanisms are established to support the precautionary approach to environmental challenges.

Process of EMS at Tata Sponge is as given below.



Tata Sponge Iron Limited is the first sponge iron manufacturing company in the country to have been awarded ISO-14001:1996 certificate. Certification to ISO-14001with 2004 version was given in May, 2006.

Environmental Policy of Tata Sponge iron Limited is as produced below:

ENVIRONMENTAL POLICY

Tata Sponge Iron Limited is committed to continual improvement in its Environmental performance, activities pertaining to the handling of raw materials, production and despatch of sponge iron; and generation and evacuation of power, so as to maintain a pollution free, clean and safe environment.

To achieve this, the company shall:

- comply with applicable legal and other requirements relating to its environmental aspects,
- identify the impact of its activities upon the environment,
- prepare and implement an annual environmental improvement plan with targets to meet the objectives and to carry out periodical reviews of its performance, and
- communicate the policy to all persons working for or on behalf of the organization and make it available to public on request

(Suresh Thawani)  
Managing Director

11/11/08



All expansion projects and also during plant operations, the best industry practices for environment protections are deployed. Tata Sponge Iron is fully compliant with all the regulatory norms and conditions. Actual emission data over the years are far below the norms stipulated by MoEF, CPCB and SPCB etc. Safety, Health & Environment (SHE) is identified as a Key Business Process at TSIL and is formally documented in SHEQ apex manual. With defined ‘Roles & Objectives’ and ‘Operational Control Procedures’, entire process is mapped. The same is reviewed through key performance measures for effectiveness and efficiency of the process.

**Highlights of Environmental Performance as a support to Business by ‘Going Green’**

**Power generation from waste heat :**

Tata Sponge generates 26 MW power by utilization of waste heat of sponge iron production. This power generation replaces fossil fuel based power generation and thereby reducing the emission of GHG, SOx, NOx etc.). After meeting the Company’s internal power requirement of about 7.0 MW, the balance quantity of power (19 MW) is sold to GRIDCO, the State Electric Utility Company.



Power generation from waste heat during last 7 years is shown here. TSIL is coming-up with an FBC power plant to generate power of about 25 MW by utilization of its waste such as char and coal fines.

Year	Total power generation (Million KWH)
2005-06	40.2
2006-07	57.75
2007-08	165.5
2008-09	181.01
2009-10	181.39
2010-11	191.37
2011-12	134.39

**Reduction in Energy Consumption :**

TSIL’s drive to reduce energy consumption thro’ various initiatives such as introduction of VVVF drives, improvement in power factor, replacing high capacity drives by low capacity ones, replacing higher watt incandescent electric bulbs with low watt energy efficient CFL bulbs, bringing awareness among users to consume less power and the overall focus on conserving power has resulted in a decreasing trend in specific consumption of power in DRI produced.

Specific power consumption per ton of sponge iron production for last 7 years is shown below:

2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
119.10	106.96	102.39	100.68	100.01	94.4	100.2

Carbon consumption per ton of sponge iron has also been reduced in last several years. Carbon to

iron ratio (C/Fe) in feed (of raw materials) reflects reduction in carbon consumption calculated on the basis of feeding of carbon with respect to feeding of iron ore for production of sponge iron.

2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
0.473	0.455	0.451	0.451	0.449	0.450	0.451

**Assessment of Carbon Foot Print :**

In pursuit of Tata Group’s initiative for Carbon Foot Print exercise, Tata Sponge signed an agreement in December, 2008 with Ernst & Young, an expert agency dealing with climate change in order to ascertain its Carbon foot print. Later an independent study was conducted by Tata Quality Management Services (TQMS) and a separate report was submitted.

The above study was aimed at estimating the GHG emission from different DRI units of TSIL and the associated WHRB power plants. Besides, the objective was to develop a structured monitoring system and also to identify GHG abatement levers so as to enable TSIL to develop an effective climate change strategy considering upcoming Governmental regulations and policies.

In line with the requirement of the study, an internal support team was formed by the management to collate necessary data and coordinate the external agency. The internal support team comprising of an Executive programme sponsor, a chief coordinator and few members drawn from different operational units of TSIL was given a basic exposure on the Climate Change initiatives of the Tata group and the need of GHG assessment at TSIL. Periodical meetings were conducted and the study continued with the help of external experts. The standard followed was the GHG protocol Initiative convened by the World Resource Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). The following areas / units were considered as the organizational boundary for the GHG study at TSIL. They are; Raw Material handling system (RMHS), DRI Kiln # 1, # 2 & # 3, Captive Power Plants and other utilities. As per the requirement necessary data on various operational parameters were collated by the members of the internal team and sent to the external agencies. The key GHG performance indicating parameters were reviewed and assessed by the external teams and were archived in a consolidated manner. Site visits and random inspections by the external teams were carried out in order to assess and improve the reliability as well as the consistency of the data. Periodical reviews of the data submitted were carried out by the external teams over tele-conference. After which the external teams presented their key observations and subsequently interactive sessions were held with the senior management team of TSIL. TSIL is in the process of implementing certain abatement levers which is as an outcome of the above assessment carried out for reduction of CO2 emission.

**Water Conservation:**

Water conservation activities comprise of the following broad areas such as;

- ✚ Water management and continuous monitoring system
- ✚ Regular maintenance of water distribution network

- ✚ Optimization and leakage surveys
- ✚ Water re-circulation system
- ✚ Rain Water Harvesting at township

As a policy, TSIL recycles its waste water / effluent and no waste water is discharged beyond its premises and maintains **ZERO effluent discharge status** over the years. Waste water is used for the purpose of road cleaning, coal yard dust suppression, gardening and watering of plants etc. after primary treatment.

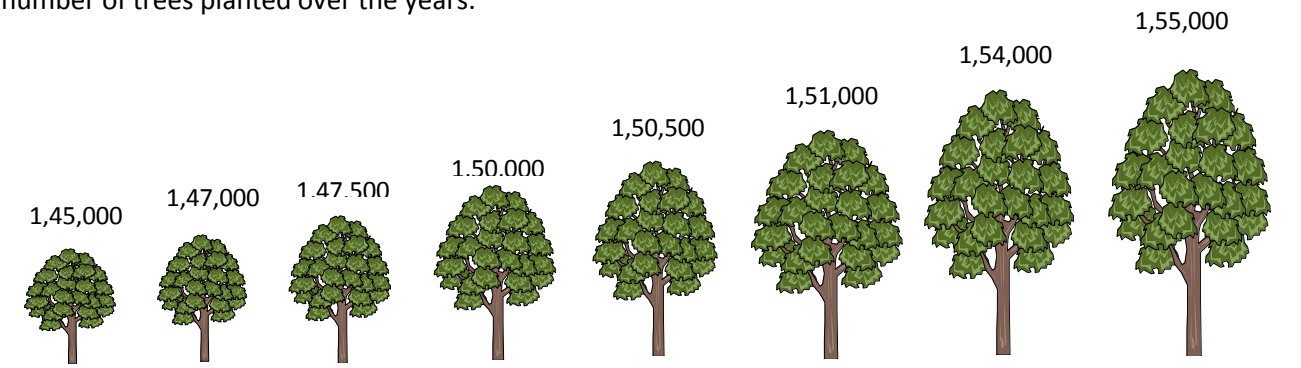
The water consumption ( in KL/MT of DRI produced) is as below.

2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
6.47	5.64	4.85	5.31	5.09	4.64	3.77

Principle – 8  
[Initiatives undertaken to promote greater environmental responsibility](#)

Afforestation / Tree Plantation :

Tata Sponge has planted around 1,55,000 trees (cumulative number) over last 25 years with survival rate of about 94 %. Today there is hardly any vacant space left for further plantation of trees. The plant, once situated on a barren stretch of land is now transformed into a green belt. Besides adding to greenery and beautification of the area, the forest so developed owing to massive plantation drive, serves as pollution reduction facility. Plantation of various species include Sandal, Mahogany, Australian teak, White teak, Bamboo, Acacia, Debdaroo etc. has been done. Some rare tree plantation has also been done in the premises. These include Rudraksha, Olive, Silver oak, Tejpatra, Dalchini etc. Given below is the cumulative number of trees planted over the years.



Waste Utilization :

**Use of Waste Heat :** TSIL presently generates 26 MW power from kiln waste heat, of which about 7 MW power is used internally and balance sold to State Grid.

**Use of ESP dust :** The ESP waste generated from the DRI plants is used for manufacturing bricks through FAL-G technology. No heat is required for manufacturing of these bricks, thus conserving natural resources such as coal and soil. TSIL is planning to convert 100 % of its fly ash generation into useful bricks by

installing high capacity brick manufacturing facility at its premises for which necessary study and DPR preparation is over.

**Use of Char :** The non-magnetic char generated as a solid waste from the DRI plants at TSIL is being stored for power generation by putting up FBC power plants. As mentioned earlier, TSIL is in the process of installing a 25 MW FBC power plant to utilize its char generation.

**Used Oil & Batteries :** TSIL does not produce any hazardous waste except used oil and batteries. All the used oil is collected from different user points and sold to authorized dealers (by Central Pollution Control Board- CPCB) for further processing at their end. The same process is followed for used batteries.

Principle – 9

Development and diffusion of environmentally friendly technology - Use of cleaner & greener processes :

Tata Sponge iron Limited being in the business of Sponge iron, an industry, infamous for causing pollution, has kept pollution parameters under check by employing environment friendly technologies such as: Electrostatic precipitators (ESPs) [in place of age old Gas Cleaning Plants (GCP)], modern Dust Extraction systems & Chemical dust suppression systems for its raw material processing, product handling circuits, telescopic unloading spouts, vacuum road cleaning machines, Road water sprinklers etc.

Parameters	Kiln-I with GCP (Before)	Kiln-I with WHRB & ESP (After)
Air emission level from stack	100-110 mg/NM <sup>3</sup>	40 mg/NM <sup>3</sup>
Volume of gas emission	1,54,000 NM <sup>3</sup> /hr	77,000 NM <sup>3</sup> /hr
Generation of waste water	500 KL/ day	Nil
Generation of fly ash	50 MT/day	40 MT/day (Useful brick making)
Generation of power	Nil	7.5 MW

In addition, TSIL has undertaken the following **development activities** over the years.

- **Reduction in CO<sub>2</sub> emission** from 2.02 to 1.87 MT per MT of sponge iron produced by reducing specific coal consumption.
- **Use of alternate energy** : TSIL has provided rural electrification in the nearby villages by installing **solar powered panels**.

TSIL has a policy in place to **check vehicles emission** at fixed intervals for vehicles entering the plant premises.



- **Ensured ‘Zero’ discharge of waste water, 100 % waste water is re circulated**



Company does not discharge any water to out side its premises. Cooling water is recirculated in the system. Other wastewater is used for road cleaning, coal yard dust suppression etc. after primary treatment.

- **Water Harvesting for ground water percolation and utilisation**

Company is doing water harvesting for capturing rain water for its utilization and also for ground water percolation. In addition to the existing water harvesting, TSIL has added one more huge rainwater harvesting facility within its premises during 11-12. Also roof rain water are collected in a big tank and water is utilized for cooling purpose.



- **Added high capacity semi-automatic brick manufacturing machine to ensure 100 % utilization of ESP dust (Waste).**

Company initially installed 4 brick manufacturing machines with a capacity of 8000 bricks / shift/machine to convert its ESP generated Fly ash into useful bricks. During the year 2012-13 company has installed one semi-automatic brick manufacturing machine, which has a capacity to produce 4500 bricks /hour of operation. Bricks are made through cold pressing process where no heat/fire is required, thus conserving natural resource (coal) and soil. Company is capable to convert 100 % fly ash generation to manufacture Fly ash bricks.



- **Added Online continuous Ambient Air Quality (AAQ) and Online Stack monitoring systems**

During 2011-12 Tata Sponge has set up 3 (three) nos of online Ambient Air Quality Monitoring stations and 3 (three) nos of Stack monitoring equipments with provision of online display of the same at the main gate with web connectivity at an investent of about 2.5 crore.



- **Telescopic unloading spouts** have been provided at the discharge point of bunkers to **Control fugitive dust** in the air. In-house development of atomized water spray system has also been incorporated for suppression of fugitive dust emission. This arrests land contamination during unloading of dust generating material.



- For cleaning of roads, the **road vacuum-cleaning machine** is used. The machine sucks the road dust and controls air pollution. Besides, the machine is also used for vacuum cleaning of the deposited dust from the floors of raw material circuits and finished product circuits using flexible pipe assembly.
- **Chemical dust suppression system** is used to reduce the dust in running circuits. Viscous chemical is sprayed over the running belt to entrap the flying dust and bring it back on the belt. A significant reduction in the fugitive dust is achieved by this process

The **total expenditure** incurred on account of installation and maintenance of pollution control equipments over last few years is as shown below:

Year	Expenditure * (Million INR)
2002-03	18.04
2003-04	20.71
2004-05	24.34
2005-06	21.60
2006-07	157.84 million INR (Addition of new Pollution Control Equipments)
2007-08	26.07
2008-09	55.54
2009-10	56.22
2010-11	53.11
2011-12	73.13

**Awards & Accolades received over the years :**

Following Environmental Awards are received by Tata Sponge Iron Limited.

Assessing Organization/Institution	Type of Award	Rank	Year
TERI	Corporate Environment Award	1st Prize	2002-03
Greentech Foundation	Environment Excellence Award	GOLD Award	2002-03
Greentech Foundation	Environment Excellence Award	GOLD Award	2003-04
Confederation of Indian Industries (CII)	SHE award	1st Prize	2004-05
Greentech Foundation	Environment Excellence Award	Platinum Award	2004-05
World Environment Foundation	Golden Peacock Award	1st Prize	2005
Directorate of Factories & Boilers	Best Environmental award	1st Prize	2005
Directorate of Factories & Boilers	Best Performance in Safety & Environmental award	1st Prize	2005
Greentech Foundation	Environment Excellence Award	GOLD Award	2006
Srishti Publications	G-Cube Award	Winner Award	2007
Greentech Foundation	Environment Excellence Award	GOLD Award	2007
TERI	Corporate Environment Award	Appreciation	2007
World Environment Foundation	Golden Peacock Award	Finalist	2008
Times of India Group & JSW	Earth Care award on GHG mitigation	Runner Up Award	2008
Shrishti Publications	G-Cube Award	Winner Award	2008
Greentech Foundation	Environment Excellence Award	GOLD Award	2009
Frost & Sullivan	Green India Award	Green Challenger	2009
State Pollution Control; Board, Orissa	Pollution Control Award	Appreciation award	1010
Confederation of Indian Industries (CII)	Best Practices in Safety Health & Environment	Second Prize	2012

**Policies addressing TSIL environment :**

TSIL has following policies in place as a part of its commitment to the environment:

- ✚ Environmental policy
- ✚ CSR policy
- ✚ TPM policy ( addressing environment) and
- ✚ Mission of the company

## **ANTI-CORRUPTION**

### **Principle – 10**

#### **Business should work against corruption in all its forms, including extortion and bribery**

Consistent with Tata Group purpose and in line with Tata Code of Conduct, the company has a set of defined Values (TSIL) as follows:

**T** – *Trust & respect*

**S** – *Social equity*

**I** – *Integrity*

**L** – *Loyalty*

and also an Organisational culture (SEWA) as follows:

**S** - *Safety*

**E** – *Environment friendly operations*

**W** – *Welfare of employees & surrounding community*

**A** – *Adaptability to changing scenario*

**Corporate Governance:** In order to enhance shareholders' value and promote national interest, the company is committed to good corporate governance and to achieve the objectives of this, the company follows the principles of transparency, disclosure, fairness, independent supervision, healthy competition, equal opportunity in employment and compliance to all relevant laws, rules and regulation.

**Adoption of Code of Conduct:** Keeping in view the Values (TSIL), Organisational Culture (SEWA) and requirements of good corporate governance, the company has laid down a code which is called Tata Code of Conduct (TCoC). It is mandatory for the company and all employees to follow the TCoC which has 25 clauses.

**Coverage of Code of Conduct:** All employees of Tata Sponge have signed the "Tata Code of Conduct". This has also been extended to suppliers and customers along with the contract for compliance in respect of relevant clauses. To re-enforce company's firm resolve towards fostering an ethical environment, employees are encouraged to raise ethical issues through Whistle Blower Policy, a formal mechanism for all employees to make protective disclosures about unethical behavior, actual or suspected fraud or violation of the company's Code of Conduct. The Ethics Counsellor personally addresses employees, local contractors, suppliers & customers to support them in upholding ethical transactions.

**The Clause No 2 (regarding financial Reporting and records)** of the Tata Code of Conduct states that the company shall prepare and maintain its accounts fairly and accurately and in accordance with the accounting and financial reporting standards which represent the generally accepted guidelines, principles, standards, laws and regulations of the country in which the company conducts its business affairs.

Internal accounting and audit procedures shall reflect, fairly and accurately, all of the company's business transactions and disposition of assets, and shall have internal controls to provide assurance to the company's board and shareholders that the transactions are accurate and legitimate. All required information shall be accessible to company auditors and other authorised parties and government agencies. There shall be no willful omissions of any company transactions from the books and records, no advance-income recognition and no hidden bank account and funds.

Any willful, material misrepresentation of and / or misinformation on the financial accounts and reports shall be regarded as a violation of the Code, apart from inviting appropriate civil or criminal action under the relevant laws. No employee shall make, authorise, abet or collude in an improper payment, unlawful commission or bribing.



***The clause No 5 of the code (regarding gift & donation)*** states that the company and its employees shall neither receive nor offer or make, directly or indirectly, any illegal payments, remuneration, gifts, donations or comparable benefits that are intended, or perceived, to obtain uncompetitive favours for the conduct of its business. Further, the company shall cooperate with governmental authorities in efforts to eliminate all forms of bribery, fraud and corruption. The company has laid down a Gift Policy clarifying its rules and regulations on gifts and entertainments.

***The Clause No 6 of the Code (regarding dealing with Government Agencies)*** makes it obligatory for the company and its employees, unless mandated under applicable law, not to offer or give any company funds or property as donation to any government agency or its representative, directly or through intermediaries, in order to obtain any favourable performance of official duties. The company shall comply with government procurement regulations and shall be transparent in all its dealings with government agencies.

***The Clause No 7 of the Code (regarding political non-alignment)*** requires the company to be committed to and support the constitution and governance systems of the country in which it operates.

The company shall not support any specific political party or candidate for political office. The company's conduct shall preclude any activity that could be interpreted as mutual dependence / favour with any political body or person, and shall not offer or give any company funds or property as donations to any political party, candidate or campaign.

***The Clause No 17 of the Code (Ethical Conduct)*** casts a duty upon every employee to ensure ethical behavior. Failure to adhere to this clause could attract severe consequences, including termination of employment.

***Reporting of Concerns:*** The Clause No 25 of the code gives freedom to all employees to raise concerns regarding unethical behavior and actual or suspected violation of Code. During the year 2012, total of 7 (seven) concerns were received from employees and one from a service provider and all were resolved.

***The Whistle Blower Policy (WBP)*** gives freedom to all the employees to raise concerns regarding actual / potential violation of Code of Conduct at the same time ensuring full protection to Whistle blowers against any form of victimization or harassment/reprimand. A high level Whistle Blower Protection Committee is in place.

***Awareness sessions*** were held by the Ethics Counsellor on TCoC / WBP with the following stakeholders :

- Employees - 8 sessions (covering over 195 employees)
- Service Providers - 1 session (covering 40 service providers)
- Contract labour - 24 sessions (covering 416 contract labourers)

***Organisation Structure for ensuring Ethics:*** The Company has a team of 5 Ethics Counsellors/Co-ordinators which also includes a female Ethics Coordinator. The company also has a Committee for dealing with the cases of sexual harassment at workplace