Mahindra Sanyo Special Steel Private Limited

Mahindra SANYO

Sustainable Development Goals
- Business Alignment Report -

2017-18

Contents

Message from the Managing Director …

Uday Gupta
Managing Director, Mahindra Sanyo Special Steel Private Limited

Dear Stakeholder,

It gives me great pleasure to share with you Mahindra Sanyo's first standalone Sustainable Development Goals (SDG) - Business Alignment report. The Sustainable Development Goals (SDGs) are a universal set of goals that UN member states have ratified to develop their agendas and policies to achieve global peace and prosperity by 2030. It is the UN's most ambitious and inclusive vision and framework to harness the social, economic and environmental challenges that will reconfigure our way of thinking for development.

Borrowing from John Donne, no business is an island. Its success and failure are entwined with the development or lack of it, of the society within which it operates. Mahindra Sanyo has been engaged for long in integrating sustainability in its business strategy and governance. The global challenges that the SDGs are positioned to tackle need deeper commitments from the private sector in terms of finding accelerated solutions in its sphere of activities through collaborative efforts with all the stakeholders.

Mahindra Sanyo not only supports the global goals but also aspires to align its business plan to the global goals that will future proof its growth and profitability. We are aware of our environmental and social responsibility in our decision-making processes especially as we belong to the primary sector of the economy – iron and steel industry, which is also one of the most polluting sectors across the globe. The global goals bring forth an unprecedented opportunity for the business in the entire value chain. Mahindra Sanyo prepares for the transformational changes in the future to tap this market opportunity for large scale inclusive and sustainable economic growth. By contributing to these sustainable development goals, we stand closer to our vision of becoming 'the most admired, successful and socially responsible special steel manufacturer in India.

The SDG Business Alignment report objectively displays our company's commitment for the global goals. We have prioritized seven (7) SDGs that are most relevant to our core activities. Our stakeholders expect us to report and share our work on global goals. Presently there is no standard for reporting on SDGs. We have followed the charter of cognizance, prioritization and measurement in preparation of this report.

Mahindra Sanyo became the first company in the metal and mining sector globally and the first Indian company to have its corporate climate action targets approved by the Science Based Targets initiative (SBTi). We have also pledged our compliance with WBCSD's WASH principles to ensure access to safe water, sanitation and hygiene at the workplace at an appropriate level of standard for all employees. Some of our other milestones under the prioritized SDGs, accomplished over the last 5 years are:

- 27% reduction in water intake at the plant under SDG 6;
- 27% reduction in specific oil consumption in our reheating furnaces under SDG 7;
- 11% reduction in specific electricity consumption under SDG 7;
- 50% reduction in pollution from stacks and fugitive emissions under SDG 7, 12 & 13;
- 78% reduction in reportable accidents under SDG 3 & 8.

We persevere to create a shared value for our stakeholders that fortifies our market credibility. We undertake a comprehensive materiality assessment activity to identify material issues that concern our stakeholders. Aspects such as skill development, inequality, fair labor practices, gender discrimination and inclusive growth are being diligently addressed in collaboration with our stakeholders. We also work with our local communities to deliver our social responsibility manifesto in areas such as education, healthcare and women empowerment. One important aspect of our approach is to connect with the small-scale entrepreneurs along our supply chain to educate and train them on the environmental and social aspects of doing business.

I am so proud of the Mahindra Sanyo employees who have embedded sustainability in the business paradigm of the company. I would also like to acknowledge all our stakeholders: suppliers, customers, affiliates, investors and the local communities for their continued trust and support in the long-term value we create for our business and the society.

Message from the Chief Technical Officer…

Yasukazu Unigame
Chief Technical Officer, Mahindra Sanyo Special Steel Private Limited

Dear Stakeholder,

We are pleased to offer you our 1st standalone "Sustainable Development Goals – Business Alignment report". We at Mahindra Sanyo are working towards making our company to be the "Confident Choice" of all our stakeholders. Our triple bottom line initiatives of People, Planet & Profit are aligned to Sustainable Development Goals.

At Sanyo our corporate philosophy revolves around "Confidence-based Management". We constantly strive to instill confidence in our stakeholders which includes our customers, investors and society at large. Through the years, we have progressively delivered high quality special steel products to our customers inter alia contributed to the building of an affluent and culturally rich society by maintaining a healthy balance amongst the six crucial capitals: Intellectual; Financial; Manufactured; Social; Human; and Natural. Through these principles and Mahindra Sanyo's acknowl edgement of the United Nations' Sustainable Development Goals (SDGs), we aim to accelerate sustainable growth & development in the society around us that will augment our brand image admiration.

Quality Focus and Customer First are two strong pillars of our core values. We ascertain the needs of our customers and deliver products that ensure their utmost satisfaction. We employ stringent quality control procedures that reduces our risk of internal rejections so that we always maintain a stable supply of cost competitive & innovative product range. Our long-term relationship with our internal and external stakeholders is a product of transparent and efficient communication strategy. Our dynamic corporate culture and firm business ethics instill a sense of ownership amongst our stakeholders.

We value the contributions of our employees towards the company and the society. We provide safe and healthy work environment to our employees and promote equitable work life balance so that they remain highly motivated. Total Productive Maintenance (TPM) at Mahindra Sanyo reduces the downtime, maintains high productivity and process efficiency at all times which adds tremendous value to our business. In our commitment to ensure higher profitability and long-term business sustainability we have adopted efficient cost reduction techniques such as resource optimization, responsible procurement & inventory management.

Sustainability serves to drive innovation at Mahindra Sanyo – in our manufacturing operations, in our products, and in new technologies.

Our compassion towards the society and environment fosters our commitment to empower the communities in which we operate thro ugh our CSR initiatives. These initiatives strengthen our aspirations of becoming extensively admired socially responsible corporate.

1. Introduction

Mahindra Sanyo Background

Mahindra Sanyo Special Steel Private Limited formerly known as Mahindra Ugine Steel Company Ltd. [MUSCO] was a dream cherished by two leading visionaries - Mr. J.C. Mahindra and Mr. K.C. Mahindra. It came into existence in 1962 under the guiding leadership of Mr. Harish Mahindra. MUSCO became the first private sector alloy steel plant in India.

In 2012 Mahindra & Mahindra entered into a joint venture with Sanyo Steel Co., Ltd and Mitsui & Co., Ltd to form Mahindra Sanyo Special Steel Private Ltd. (MSSSPL). The company headquarters are located in Khopoli, an industrial city at the base of the Sahyadri mountains in Maharashtra. Sahyadri Ranges are regarded as the largest Carbon Sink in Asia. The company has always been aware of its environmental responsibility while operating in this eco sensitive area.

For over 50 years, by virtue of our perseverance and dedication, we have been at the service of several national & international customers. As a key player in the special steel industry, Mahindra Sanyo aims to be admired for its socially responsible and ethical business practices within the country and abroad. Our foundation is based on strong core values that include good corporate citizenship, professionalism, dignity of individuals, quality and customer focus. The company is certified under ISO 14001, OSHAS 18001, ISO 50001 and ISO TS 16949.

Processes, Products & Customer Base

As a secondary steel manufacturing plant, Mahindra Sanyo uses recycled steel scrap of various grades thereby promoting circularity through its manufacturing operations. We employ the Electric Arc Furnace (EAF) route where steel scrap forms the principal raw material.

Other raw materials include pig iron, sponge iron, and Ferro alloys while electrodes, refractories, fuel oil and energy make up other inputs.

Through our wide range of customizable products, we aim to provide long term value to our customers. Our products and applications find utility in important segments of the economy such as automobile, agriculture machinery, railway, oil & gas, capital goods and other engineering applications where they are used for various end uses like crankshaft, gears, bearings, valves bodies, tools, rail axles etc. Ring Rolling is a forward integration of our steel business. We cater to the bearing and automotive part manufacturing industries both in “as forged” and/or “green machined condition”. The company manufactures rings through closed die forging as well as seamless ring rolling processes. We offer our products to the customers spread all over India and Europe.

Figure 1: Mahindra Sanyo Steel Bars

Figure 2: Mahindra Sanyo Rings

Steel Industry: Outlook

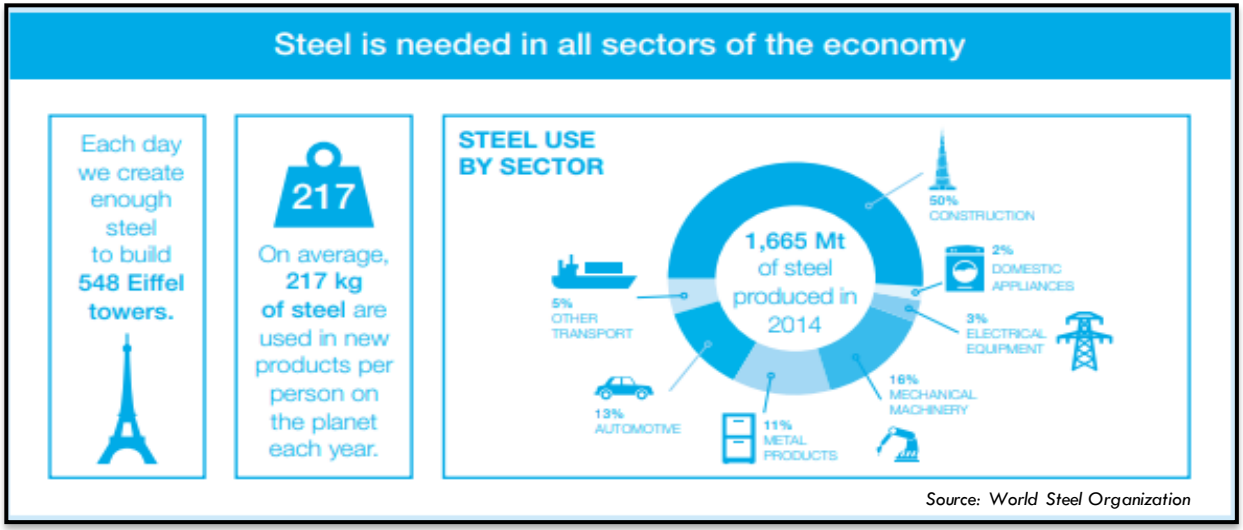


Figure 3: Sector-wise Steel Consumption

Steel as a commodity forms the backbone of the infrastructure sector that has progressively transformed the outlook towards lifestyle in the modern era. It has helped lift societies out of poverty, spurring economic growth, and continues to do so around the world today. (World steel association, 2012). The above figure displays the sector-wise utilization of steel in the world.

Globally, India is the third largest producer of steel. It is anticipated that a crude steel capacity of 300 MT will be required by 2030-31, based on the demand projections of the government as per the National Steel Policy, 2017. However, achieving this capacity will require extensive mobilization of natural and financial capital, manpower and infrastructure. With current rate of GDP growth, the steel demand will grow threefold in next 15 years to reach a demand of 230 MT by 2030-31.

However, even with this demand, India's per capita consumption would still be lower than the current global average of 217 kg. To drive steel demand, Government of India has identified construction and manufacturing sectors like Rural development, Urban infrastructure, Roads & Highways, Railways etc. to be the key focus areas. A robust industrial policy and various initiatives taken by the Government have provided a platform for expansion of the private sector in the steel industry. Given the low per capita consumption of steel in India at present, a huge potential for growth exists in the near future in line with the Government's development agenda.

The alloy steel which is a specialized industry contributes to nearly 10% [4 Million Tons/Annum] of the total steel produced [40 Million Tons/Annum] in India. Mahindra Sanyo contributes nearly 5%-7% to the alloy steel produced in India. Alloy steel, a value-added product is a critically important segment of the Indian steel industry.

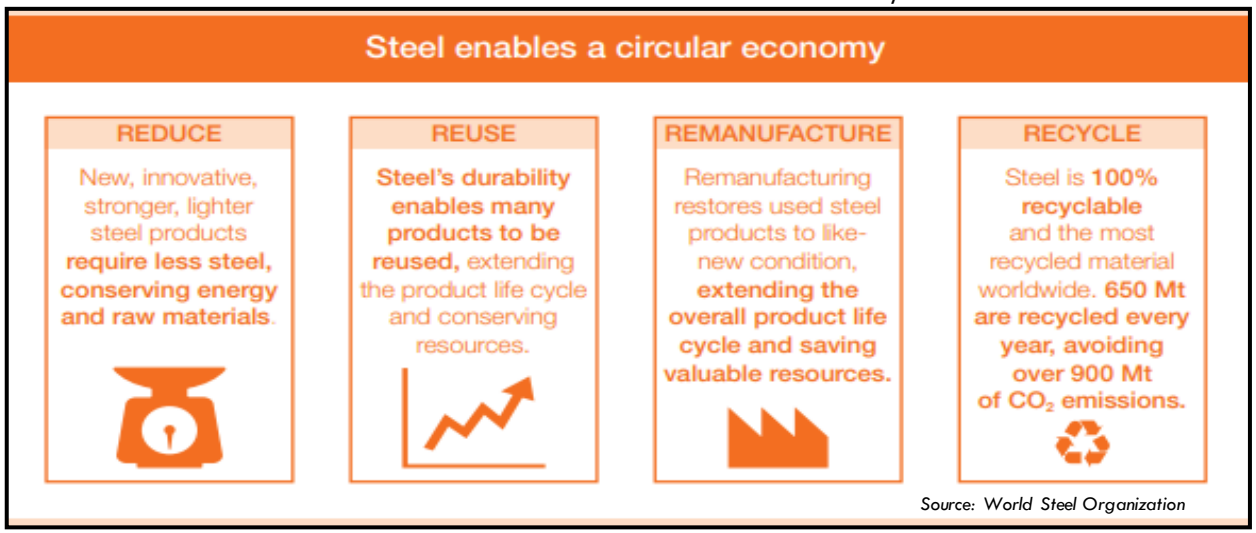
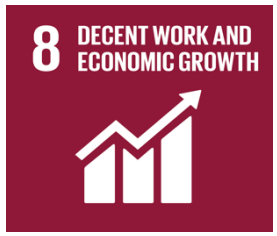


Figure 4: Steel & The Circular Economy

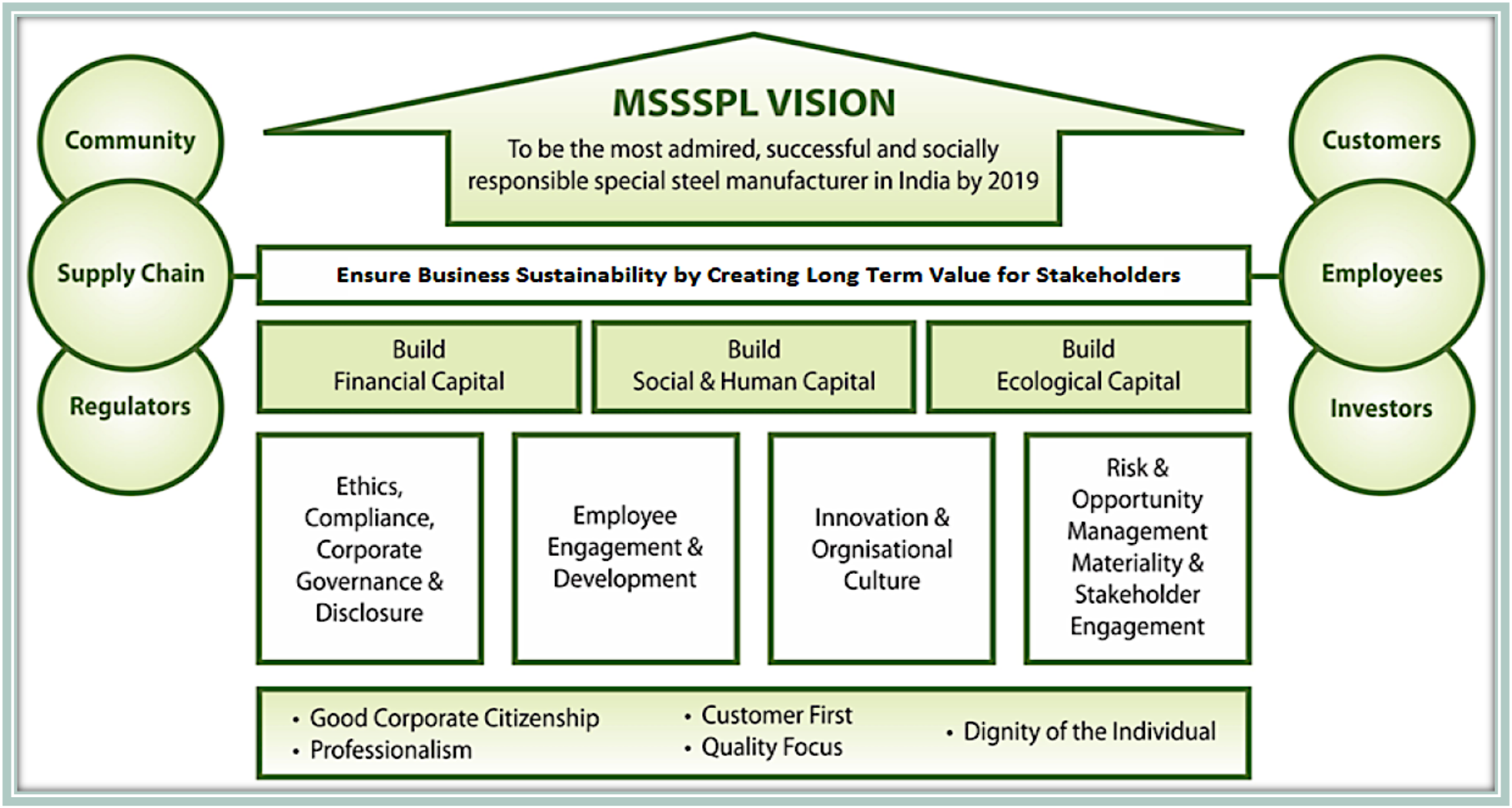


Mahindra SANYO supports The Sustainable Development Goals

– Our Vision –

"To be the most Admired, Successful and Socially Responsible Special Steel Manufacturer in India by 2019"

Mahindra Sanyo Business Sustainability Guiding Framework



2. Sustainability at MSSSPL

Introduction

Mahindra Sanyo's sustainability outlook stands tall on the **4 Pillars** of sustainability which represents its aim to create and nurture financial, social, human and ecological capital.

At Mahindra Sanyo, we are well aware of the global concerns on climate change and carbon-intensive growth and we are therefore putting greater emphasis on responding to the needs and expectations of our stakeholders. Company's sustainability performance is in line with GRI Standards and we aim to report our contribution to United Nation's SDGs through this report.

Figure 5: Mahindra Sanyo Targets in Steel

Why are the SDGs important for business?

Businesses have begun to define and include broader social responsibilities in their corporate strategies. Sustainability has become a crucial concern for corporations across the globe. Mahindra Sanyo firmly believes that, in a complex social system such as the planet Earth, the 2030 Agenda for Sustainable Development can be used as a guiding manual by businesses to accelerate growth in a sustainable manner. We are deeply rooted in the idea that our role is not just confined to giving back to the society from our profits but also about ensuring that the processes deployed to earn these profits are ethically sound.

The SDGs originated from the successes and failures of the Millennium Development Goals but are more distinct and holistic in nature. The SDGs provide a common framework for a wide range of organizations to strengthen their stakeholder relations and keep pace with policy developments. SDGs share a common language and purpose that will harmonize societies and stabilize markets.

Policy

Minimizing the impact of the manufacturing operations on the environment and society are the prime objectives of the sustainability policy and this motive has always remained embedded in the company's business-related decisions. We have setup systematic processes for efficient management of operations by identifying key environmental, social and governance indicators which are periodically monitored. This helps in tracking the performance and ensures sound intervention when it comes to GHG emissions reduction, improvement in energy intensity and resources efficiency, and waste management. Apart from delving into reduction and reuse, the company has also heavily invested in water and energy conservation. Mahindra Sanyo is committed to the Science Based Target of reducing its Scope 1 and 2 emissions by 35% per ton of steel produced, and Scope 3 emissions by 35% per ton of steel produced, by 2030, both based on a FY 17 baseline. Various collaborative projects to reduce our Scope 3 emissions have been taken up with our value chain partners.

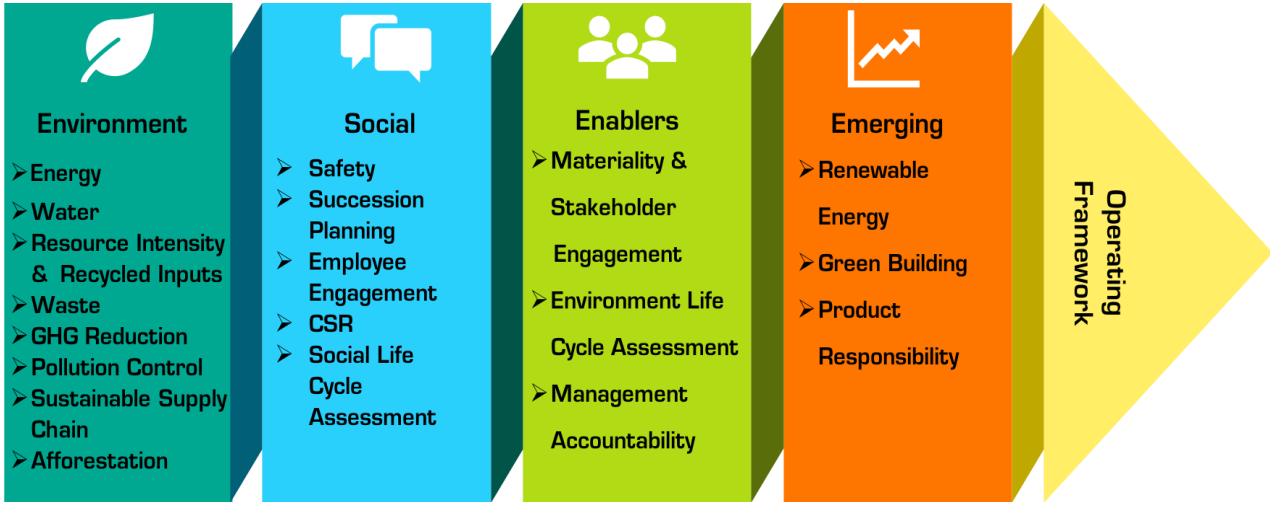


Figure 6: Operating Framework

Operating Framework

A strong institutional framework forms the backbone of a company's success. We have recognized four key elements in the operating framework that will be instrumental in achieving our sustainability objectives which is displayed in figure 6.

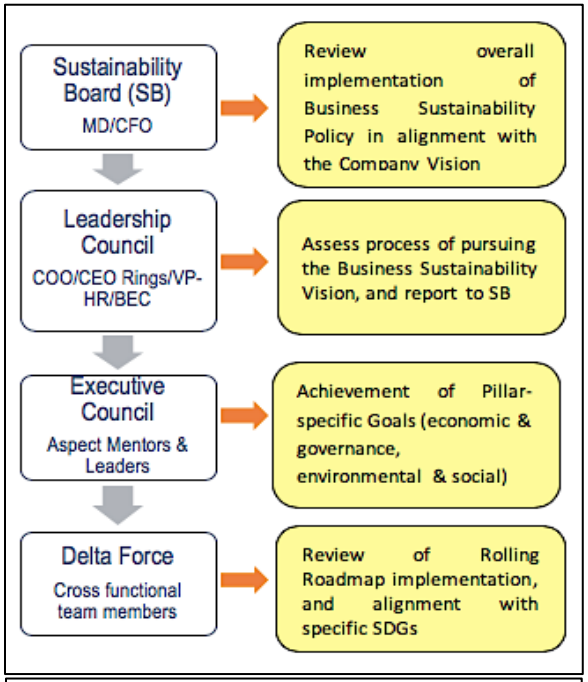


Figure 7: Governance Structure

Governance

Mahindra Sanyo's corporate governance promotes fair and transparent disclosure practices. The governance structure revolves around a well-defined code of conduct that disseminates adequate rights and responsibilities for the Board of Directors and employees thereby ensuring the delivery of long-term benefits for all stakeholders. The Board of Directors are the highest authority for decision making on sustainability matters while ensuring effective abatement of risks.

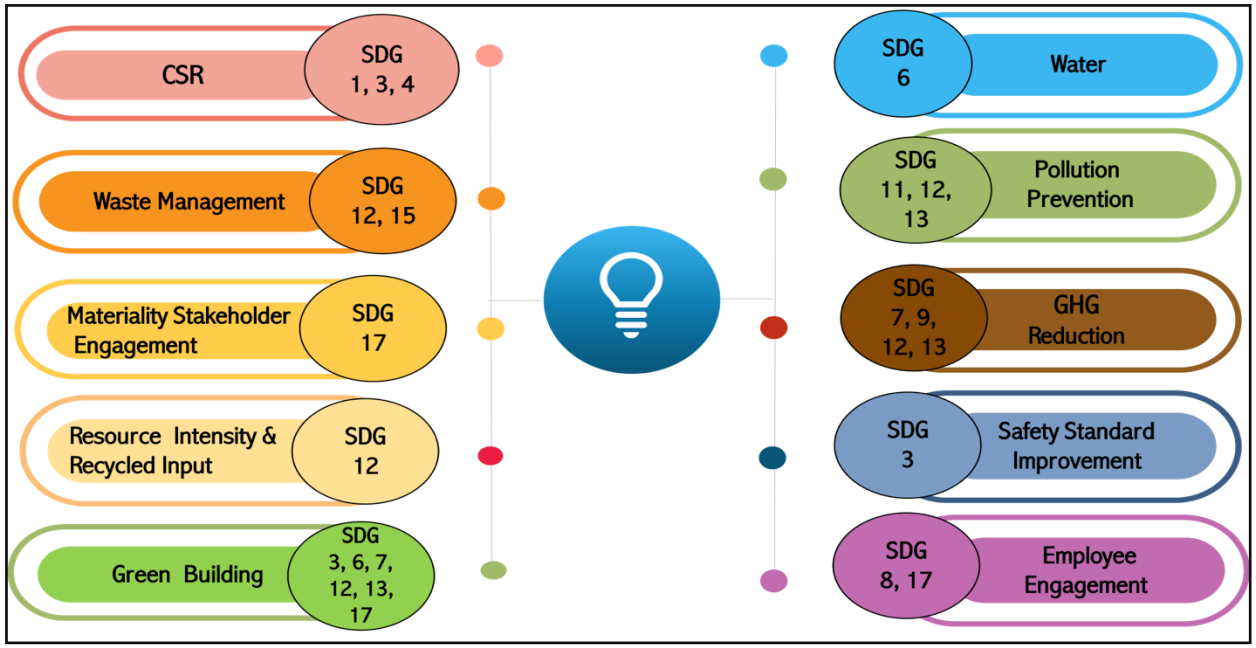


Figure 8: Aspect Goal & SDG Connect

Aspect Document & SDG Connect

We have identified ten aspects. The Aspect goals are aligned to the vision of the company. The aspect documents also hold linkages to Business Score Card [BSC] - our strategy execution framework & the Mahindra Dashboard - the group sustainability dashboard. A dedicated cross-functional team, across the hierarchy, is assigned to each of the 10 aspects. An action plan, related roadmap and their sphere of influence on our stakeholders is demarcated and decided for every aspect. The aspect mentor oversees the progress of the assigned aspect which includes guidance, progress review and appraisals. The SDG linkages to their respective aspects have been displayed in figure 7.

Roadmap

At Mahindra Sanyo, employees are involved in the construction of the sustainability roadmap and they are motivated by way of purpose driven mindset as well as performance driven management system to achieve the targets set out in the roadmap. The sustainability team implements a 5-year roadmap, with clear-cut action plan and proposed outcomes, which is reviewed quarterly by the Business Excellence Cell and the top management. The 5-year sustainability rolling roadmap derives its essence from Mahindra Group sustainability policies and goals. The targets taken are linked to best practices globally through continual improvement mode with the first two years defined in details in a typical project execution framework while the next 3

years being aspirational based on emerging technology, risks and opportunities.

The roadmap also considers material issues, impact analysis, internal and external benchmarks, people development and business goals.

Regular review, monitoring and necessary changes are made to achieve the aspect goals by rotating the PDCA wheel. Apart from GHG emissions Mahindra Sanyo is committed to reduce its gaseous emissions such as Suspended Particulate Matter (SPM) by 80% and SOx by 68% by FY 22 over the baseline of FY 17. The company also aims to completely eliminate NOx emissions by FY 22. All gaseous emissions are however well below the specified limits of Maharashtra Pollution Control Board (MPCB). An exemplary Roadmap has been shown in the table 1 below.

Table 1: Aspect Targets & Roadmap

Aspect Goal	UOM	FY 18	FY 19	FY 20	FY 21	FY 22
Reduce Scope-1 Emission [FY 17 Baseline]	% (T-CO2-e/T of SMS)	100%	84%	80%	80%	80%
Reduce Scope-2 Emission [FY 17 Baseline]	% [T-CO2-e/T of SMS]	85%	76%	64%	63%	60%
Reduce Specific Power consumption [FY 17 Baseline]	% (KWH/T of SMS)	98%	92%	88%	84%	80%
Reduce Specific Fuel Oil consumption [FY 17 Baseline]	% (Ltrs/T of SMS_FO)	101%	41%	0%	0%	0%
Increase Specific Natural Gas Fuel consumption [FY 17 Baseline]	% (SCM/T of SMS_NG)	-	-	100%	175%	175%
Use of renewable Energy [FY 17 Baseline]	% of Total Power	4%	12%	14%	25%	29%

Sustainability Highlights

Safety

- Recorded Zero reportable accidents in FY 18.

Environment

Energy

- The Company bagged National Energy Management award [3rd year in a row] conferred by CII in Sept' 2017 for "Energy Efficient Unit" in Metal and Steel Sector.
- 27% reduction in Specific Oil consumption in last 5 Years. 4% Renewable energy share in the energy mix.

Waste

- Conducted gap assessment by M/s Intertek for Zero Waste Landfill Certification.
- Commissioned in-house slag crushing unit moving towards Zero waste to landfill.

Biodiversity

- Biodiversity Screening of Mahindra Sanyo conducted by CII to understand Biodiversity related risk from the operations.

Governance

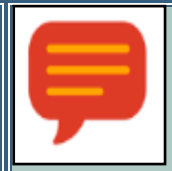
- **Database Management** - Rolled out online database management portal [ReSustain, Treeni Pune] to strengthen data analysis.
- **Efficient Governance** - Developed 5 policies on Ethics and Governance and conducted shop wise awareness sessions.
- **SDG Alignment -** Performed third party study with M/s SustainPlus to align our activities with SDGs in FY 18.
- **Materiality Assessment** - Through Stakeholder Engagement program Mahindra Sanyo reached out to 175 individual stakeholders in FY 18.

Employee Involvement

- Theme based month on Energy & Safety conducted in FY 18 wherein workshops awareness sessions and quiz competitions were organized.
- Retained Stage 4 at the Mahindra Way [TMW] –A Business excellence model for TQM– in FY 18.
- Recorded a total of 800 Kaizens and 24 QC stories for productivity improvement quality improvement & cost reduction in FY 18.

Public Advocacy

- Member of ResponsibleSteel™ to develop standards for entire steel value chain. It is a not-for-profit organization and industry's first global multi-stakeholder standard and certification initiative.
- As an advisory board member of Alliance for Integrity (AfIN), successfully represented in the anti-corruption campaigns.
- Participated in Phase 5 of round table for finalizing the Product Social Impact Assessment [PSIA] framework.
- Part of WRI's [World Resource Institute] Carbon Market Simulation initiative that aims to help businesses leverage the opportunities from potential market-based mechanisms to meet their emission reduction targets.



Social

- Women Empowerment
  - Under CSR initiative, 2 new Self-Help Groups formed on self-sustaining basis. 64 ladies have been benefitted from this.
- Education & Skill Development
  - Under CSR, 421 beneficiaries generated from education related activities in FY 18.
  - Organized skill-enhancement Tailoring and Computer training program for 44 girls & ladies from the nearby communities.
- Community Development
  - Various activities to support Swachh Bharat Abhiyaan – A nationwide cleanliness campaign to clean up the streets, roads and infrastructure of Indian cities and towns.

3. Risk & Opportunity Analysis

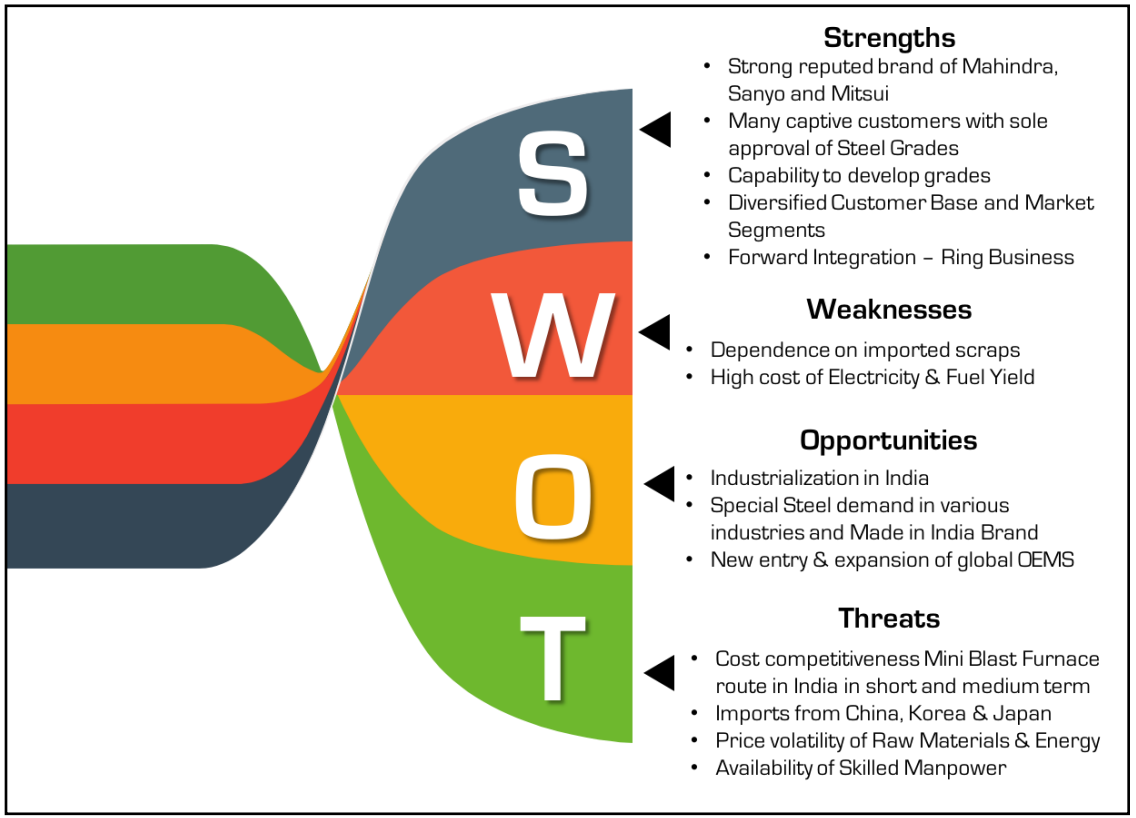


Figure 9: SWOT Analysis of Mahindra Sanyo

Methodology

It is important to account for risks businesses may face, so that all stakeholder concerns are addressed, and maximum shared value is created for all. Opportunities are yet another aspect, that companies focus on, in order to capitalize untapped business and resource potential. Mahindra Sanyo undertakes a holistic risk management process to review and map its corporate risks and opportunities on the basis of level of severity and occurrence. The internal risk and opportunity assessment draws relevance from organizational SWOT analysis process [figure 9], which flows from the organization's vision and long term goals. The risk and opportunity [RO] assessment is based on the company's 40 general issues, shortlisted from a list of 95 Datamaran corporate reporting topics according to the relevance for the company. A customized questionnaire was prepared, both in English and the local language Marathi, for every stakeholder group that allowed stakeholders to rate each topic on a numerical scale to record their perceived risks & opportunity scores for various general issues. The risk and opportunity mapping section was divided into 'Upstream', 'Operations' and 'Downstream' so respondents could clearly indicate where each topic appears in the supply chain The stakeholders were classified into 2 categories viz. Internal & External stakeholders. The internal stakeholders included Workforce, Group Companies [GC] and Executives, while the external stakeholders involved the Community, Banks, Professional Bodies [PB], Customers and Suppliers. The Risk & Opportunity percentile score was calculated for all 40 parameters for both external and internal stakeholders. These Risk and Opportunity scores form the basis of materiality assessment, as illustrated in subsequent sections. The Risk vs Opportunity percentile scores were mapped for both external and internal stakeholders to create a matrix presented in the figure 10 & 11 respectively.

Results & Inferences

According to External Stakeholders – Air Emissions, Recycling-Waste Management-&-Reduction, Occupational Health & Safety, Climate Change, Biodiversity, Renewable Energy and Alternatives, Business Ethics and Employee Development are highly critical from both risk & opportunity point of view.

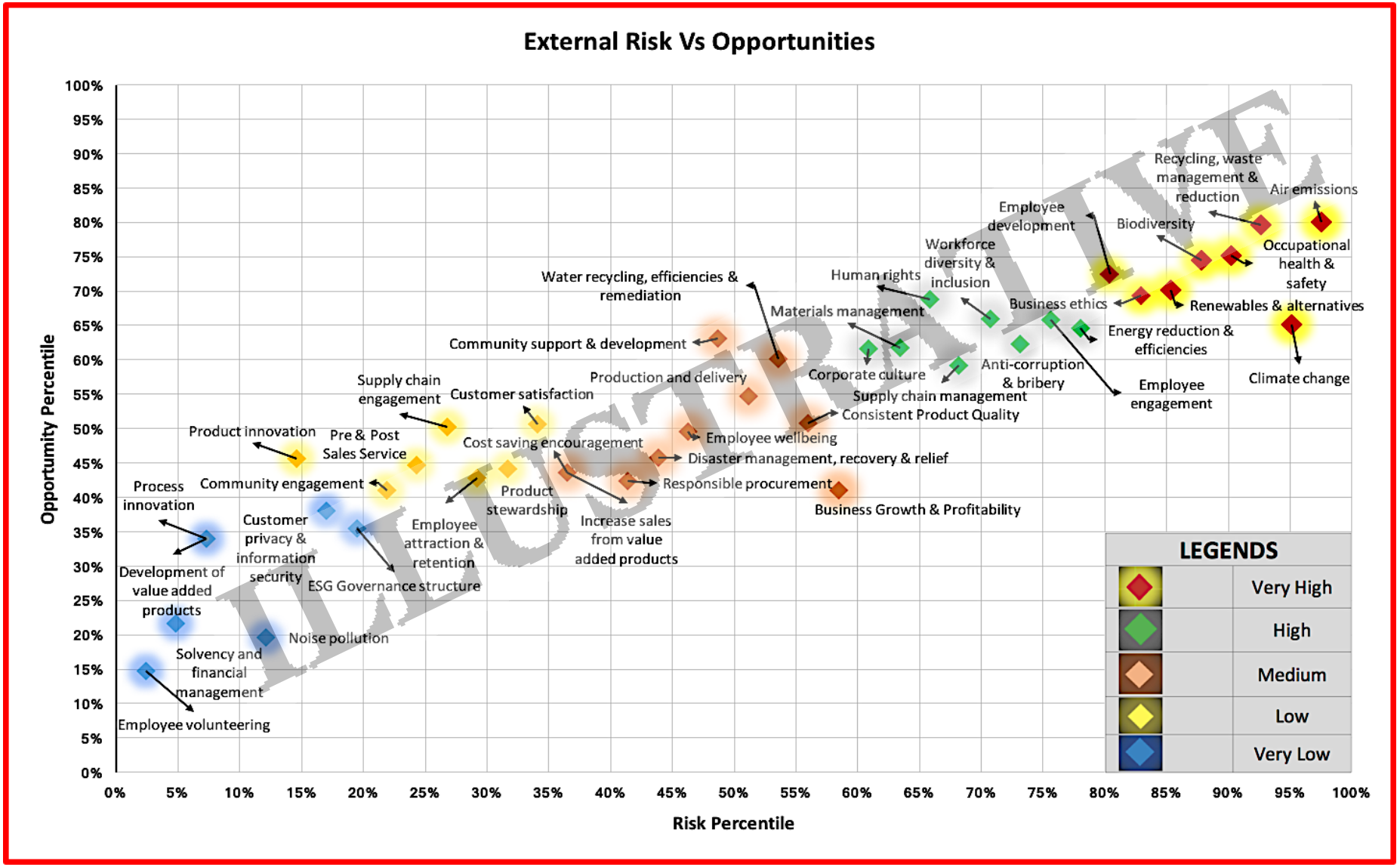


Figure 10: External Risk vs Opportunities

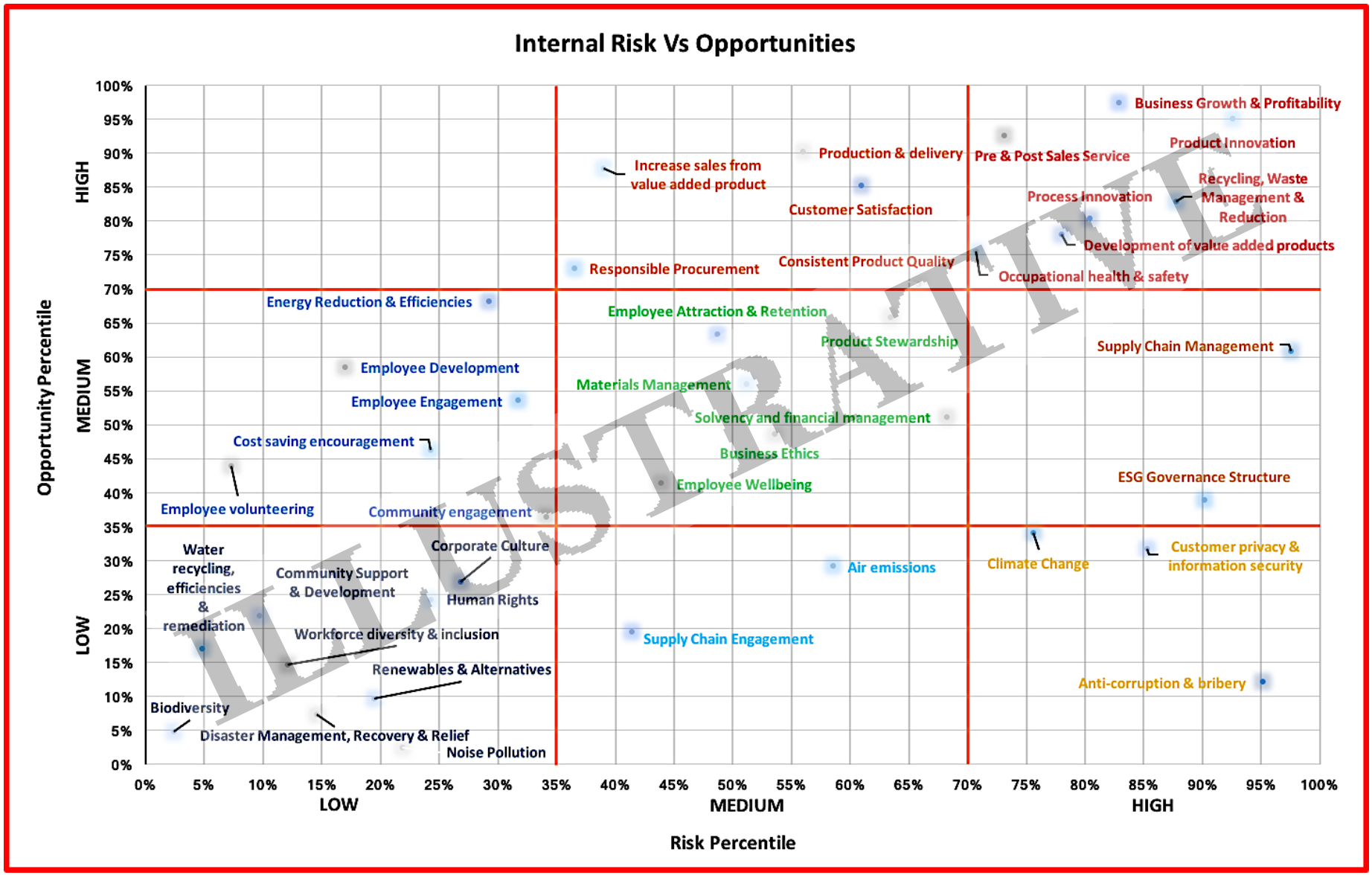


Figure 11: Internal Risk vs Opportunities

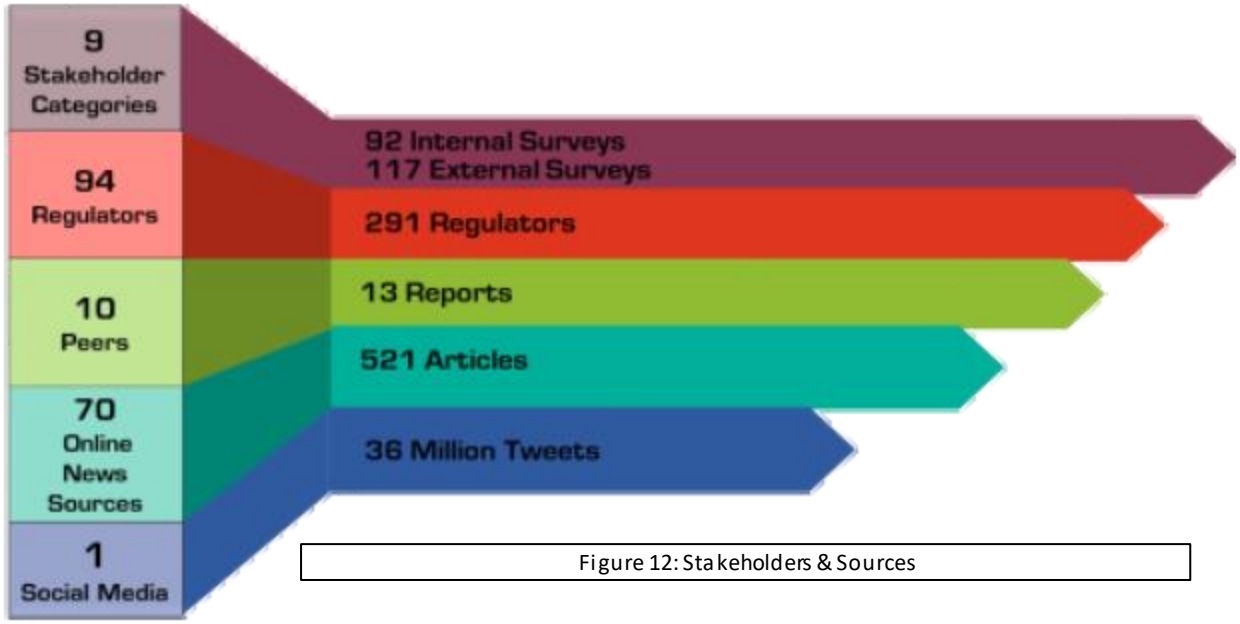


Figure 12: Stakeholders & Sources

According to Internal Stakeholders – Business Growth & Profitability, Occupational health & safety, Recycling-Waste Management-Reduction, Pre-& Post Sales Service, Process Innovation, Product Innovation and Development of value-added products are highly critical from both risk & opportunity point of view. The stakeholders feel that Climate change and Anti-corruption are high on risk for the company but low on opportunities. Supply Chain Management is prioritized high on risk but medium on opportunity scale.

Management at Mahindra Sanyo ensures that the identified risks are mitigated and opportunities are transformed into action plan such that maximum benefits are reaped out of each in a plausible time frame.

Materiality Assessment

In the sustainability world, "materiality assessments" are the backbone of reporting. Within the holistic risk management process, we also conduct materiality assessment to review our material issues annually, thereby using it as an opportunity to apply a sustainability lens to our business risk, opportunity, trend-spotting and enterprise risk management processes.

These issues were identified from the outcomes of Risk & Opportunity analysis.

The materiality assessment was performed by leveraging artificial intelligence and big data through the use of the business intelligence tool Datamaran, developed by eRevalue. The process included an assessment of the issues by the team in order to represent the corporate view, both current and prospective to build the materiality matrix. The Datamaran tool facilitated screening of an extended scope of data and stakeholders beyond what is manually possible thereby providing a clear understanding of the contribution of each source and their associated stakeholders to the overall results. figure 12 represents the stakeholder categories and the sources used for each of the stakeholder subcategory as mentioned in Risk Analysis, to build the model.

Our CSR department conducted a Materiality Survey Session for the local communities, which included 65 girls and women, [figure 13] in January 2018.

Figure 13: Materiality Survey Assessment

The assessment relied on various sources which were each used as individual inputs into a custom-made model that allowed our team of data scientists to build an evidence-based materiality matrix.

Each source relied on a specific scoring methodology that reflects the nature of data and its analysis. After

attributing a score to each source, percentile was calculated to normalize the data and allow a compilation of different scorings. The percentile was used to determine the final list of material topics and plot them on the matrix.

Finally, material topics were prioritized based on the strategic importance to the business, importance to stakeholders and the social, economic and environmental impact of each topic in the value chain as shown in the Materiality Matrix below.

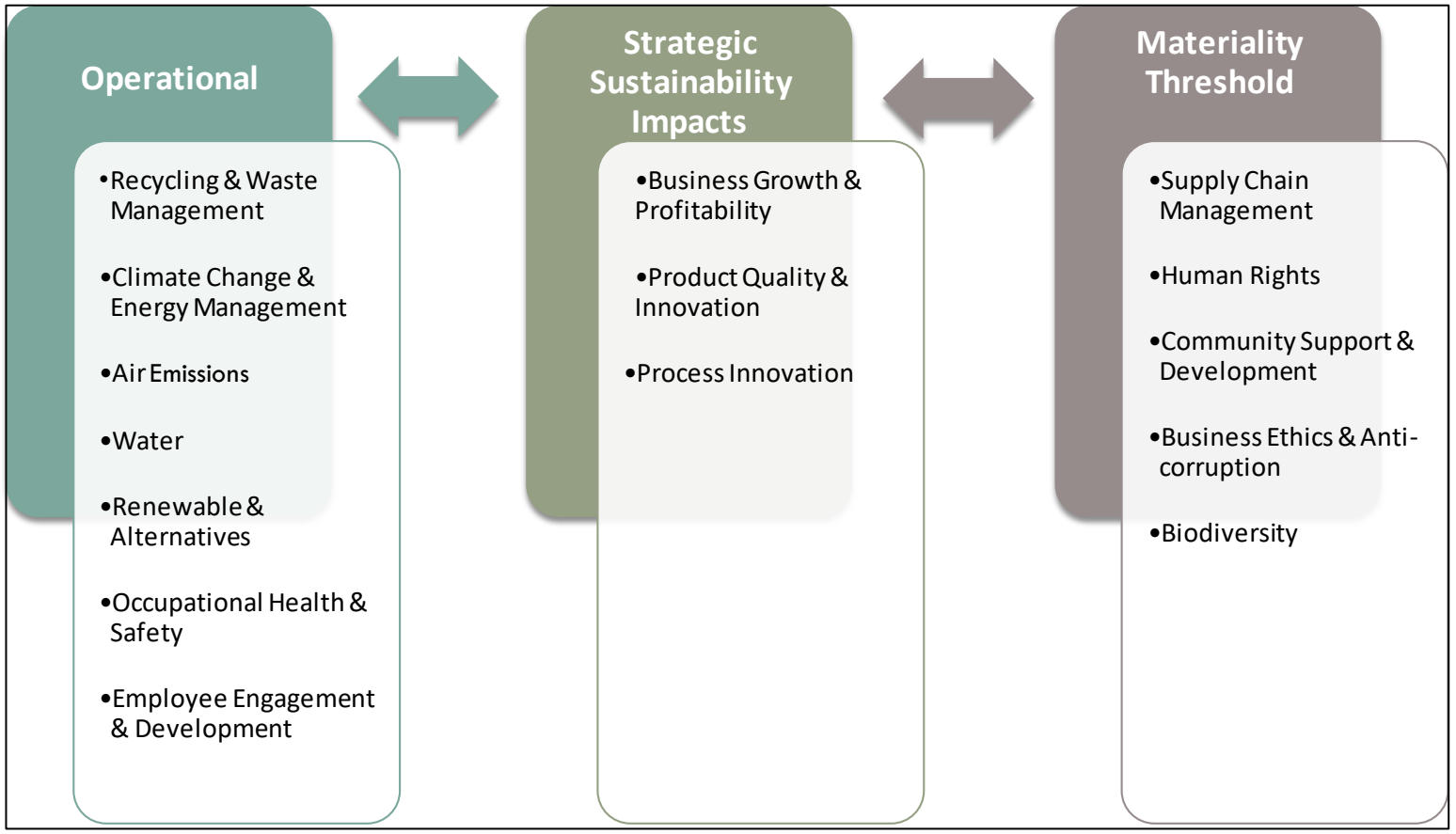


Figure 14: Materiality Matrix

SDG Connect to Materiality Assessment & Risk Opportunity Matrix

Table 2: SDG & Materiality Connect

SDG No	SDG	Material Topics
	Ensure healthy lives and promote well-being for all at all ages	Employee Wellbeing
		Occupational Health & Safety
		Community Engagement, Support & Development
		Employee Development
	Ensure availability and sustainable management of water and sanitation for all	Employee Wellbeing
		Water Recycling, Efficiencies & Remediation
		Responsible Procurement
		Human Rights
		Biodiversity
		Recycling, Waste Management & Reduction
		Climate Change
	Ensure access to affordable, reliable, sustainable and modern energy for all	Renewables & Alternatives
		Energy Reduction & Efficiencies
		Climate Change
		Human Rights
		Community Support & Development
	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Business Growth & Profitability
		Solvency And Financial Management
		Increase Sales From Value Added Products
		Product & Process Innovation
		Development Of Value-Added Products
		Materials Management
		Occupational Health & Safety
		Human Rights
		Employee Attraction & Retention
		Workforce Diversity & Inclusion
		Employee Wellbeing

SDG No	SDG	Material Topics
	Ensure sustainable consumption and production patterns	Supply Chain Management
		Product Stewardship
		Energy Reduction & Efficiencies
		Water Recycling, Efficiencies & Remediation
		Recycling, Waste Management & Reduction
		Air Emissions
		ESG Governance Structure
		Climate Change
		Community Engagement, Support & Development
		Employee Engagement
	Take urgent action to combat climate change and its impacts	Climate Change
		Disaster Management, Recovery & Relief
		Employee Engagement
		Employee Development
	Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	Business Ethics
		Corporate Culture
		Employee Engagement
		Community Engagement
		Supply Chain Management

4. SDG Prioritization

Background & Methodology

During the preliminary assessment, a holistic review of Mahindra Sanyo's activities was carried out and they were mapped to the relevant SDGs. Of the 17 Sustainable Development Goals, 12 goals were shortlisted after the assessment. After an intense review of preliminary results by the concerned stakeholders, the scope and objectives for the final assessment were crafted in order to meet the long-term sustainability goals of Mahindra Sanyo.

The next step was to prioritize the SDGs in order to deliver an outstanding performance and maximize the positive impact of initiatives that are in line with the global goals. Fundamentally all 17 goals hold high importance for every country. However, the relevance may differ depending on the type of economy, growth and development status, social and cultural backgrounds, type of industries, etc. The relevance of SDGs also varies across sectors and industries. According to World Steel Association [WSA], SDG 8: Decent Work & Economic Growth; SDG 9: Industry, Innovation & Infrastructure; SDG 12: Responsible Consumption & Production and SDG 13: Climate Action are critical to Iron & Steel Manufacturing Industries. [*Source: SUSTAINABLE STEEL - Policy and Indicators 2016*]

While in India it has been observed that the business community is developing a fair amount of interest in the SDGs, as they cover a wide range of issues elemental for the success of a business. Viewing a general trend here, many corporates have started mapping their existing programs to the sustainable development goals.

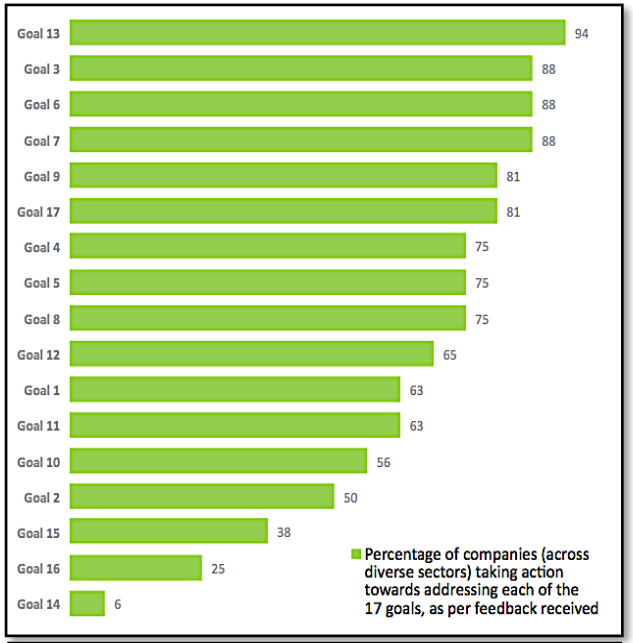


Figure 15: Global Goals addressed by Indian Corporates. [Source: FICCI, 2018]

Figure 16: SDGs Where Indian Businesses are acting upon. [Source: FICCI, 2018]

According to the Federation of Indian Chambers of Commerce & Industry (FICCI) report dated March 2018 - 'Sustainable Development Goals – Linkages with corporate actions in India', the percentage of Indian companies addressing the global goals across various sectors is shown in figure 15. According to the survey of Indian companies conducted by FICCI, more than 50% companies responded that they have aligned their corporate strategy to 14 of the 17 goals, barring SDG 14, 15 and 16. The SDG 14: Life Under Water; SDG 15: Life on Land and SDG 16: Peace, Justice & Strong Institutions still struggle to find relevance in Indian context. SustainPlus carried out a preliminary assessment with specific focus on WSA recommendations, global and Indian trends, peer steel companies' reviews, and, internal and external stakeholder concerns. Based on these results and the recommendations of aspect teams at Mahindra Sanyo, the management prioritized 7 SDGs that were extremely relevant in terms of impacts and opportunities they hold for the company. The 7 SDGs were further drilled down to target level. The aspect mentors and aspect team members collaboratively reviewed all 66 targets in 12 SDGs that were shortlisted in the preliminary assessment and narrowed down to 34 targets for further analysis. The 34 prioritized targets were again drilled down to the indicator level. For each of the indicators under the selected SDGs and targets, a monitoring parameter (MP) was identified which was in line with the corporate targets of the company. These MPs will help the company gauge its performance on selected SDGs and Targets. These MPs also formed the basis of setting a 5 Year rolling roadmap for the company. The company also conducted an Impact Assessment of the SDGs based on the Sustainability Accounting Standards Board (SASB) methodology (explained later in this section). The prioritized SDGs are displayed in figure 17.

Management Approach

Mahindra Sanyo's strategy revolves around proactively managing and mitigating its environmental and social impacts. We undertake a detailed need analysis study of issues persistent with our stakeholders along the value chain including the community in which we operate. This analysis helps us to identify the environmental, social & governance issues where the organization needs to intervene and mitigate the issues. The identified issues are then prioritized and categorized as per the corporate aspects of the company as discussed in the earlier sections. The management approaches each issue differently and develops an action plan for the same. Subsequently, goals and targets with respect to each issue are crafted which are based on S.M.A.R.T. (Specific, Measurable, Achievable, Relevant & Time bound) principle. A cross functional team with desired proficiency and problem-solving skills is assigned to each aspect. The aspect team designs a project management plan for each initiative. The top management reviews the proposal and allocates adequate resources (Human & Capital) as per the requirement. The team also initiates a feasibility assessment to account for the proposed benefits and payback for the company. The progress is monitored and evaluated periodically. An impact analysis study is undertaken to validate the percolation of benefits to the society and relevant stakeholders. The main role of the board of directors is to ensure the convergence of internal and external aspects of the organizational system. Various core committees make apposite contribution to our commitment towards sustainable growth and development for all.

Figure 17: Mahindra Sanyo's Prioritized SDGs

Goal 3 – Good Health & Well-Being

Why This SDG?

Organizations have the power to influence and mitigate issues from a variety of sectors. The companies must leverage their corporate resources towards the holistic development of employees and communities alike. The organizations shall bear the responsibility of maintaining good physical health and mental wellbeing of the community in which they operate. The company must take utmost care of its employees as they form a vital resource for the growth of the company. The company should provide a healthy work environment for its employees so that the employees remain focused and satisfied.

Ensuring healthy lives and promoting the well-being for all at all ages is essential to sustainable development. Efforts are needed to fully eradicate a wide range of diseases and address as many persistent and emerging health issues.

Prioritized Targets Under SDG 3

3.4 By 2030, reduce by one third, premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being

3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents.

3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

3.D Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.

Focus Areas

- **Occupational Health & Safety**
- **Employee Health & Wellbeing**
- **Employee Engagement & Development**
- **Community Engagement, Support & Development.**

SDG 3 & Business: The Connect

We at Mahindra Sanyo ensure that our employees stay happy and fit in order to realize maximum productivity at any instance of time. We conduct various training sessions to sensitize the employees on Health, Hygiene and Safety issues.

We continuously assess the needs of our nearby community and provide adequate remedies to fulfill the gap created through social and economic deprivation. Some of the initiatives taken by us for the employees and the community are mentioned below:

1. Initiatives for Employees:

- Health
  - Osteoporosis Prevention Awareness.
  - Cancer Awareness Program.
  - Organ Donation Awareness.
  - Asthma Awareness.
  - Awareness on Diabetes.
  - World Hypertension Day - Know your Blood Pressure.
  - Heat Stress Prevention Training
  - Silicosis Awareness.
  - Family Health: Medical consultation & treatment to family members of employees.
  - Ergonomics Training.
  - Transformational Challenge Program (Weight Reduction Program).
  - Bone Mineral Density Camp.
  - Awareness session on No Tobacco Day.

- Hygiene
  - ♦ Hygiene & Sanitation: Water & food borne disease Awareness.
  - ♦ Hygiene - Food Allergy / hand washing Awareness.
  - ♦ Canteen Hygiene lectures.
  - ♦ Life style transformation- Diet & Nutrition Awareness.
- Safety
  - ♦ EHS Policy Awareness for Staff.
  - ♦ First Aid Training program- Security Personnel on occasion of Republic Day.
  - ♦ The average Dispensary Satisfaction Index increased by 12% in FY 18 from FY 17.

2. Initiatives for the Community:

- ♦ Various activities to support *Swachh Bharat* - A nationwide cleanliness campaign by Government of India to clean up the streets, roads and infrastructure of Indian cities and towns.
- ♦ School Children Health Checkup Camp at JCMM School.
- ♦ Free health treatment and medicines are provided on a monthly basis to the residents of 'Ramadhan Old Age Home'
- ♦ Village Health check-up camp.
- ♦ Regular vision tests for truck drivers and blood donation camps
- ♦ The Employee Social Options program to engage employees to the needy and underprivileged sections of society. Employees focus their activities around the areas of health, education and environment.

Business Impact

- ♦ Improved productivity.
- ♦ Reduced employee turnover.
- ♦ Improved health, mental wellbeing and satisfaction of employees.
- ♦ Larger community reach.
- ♦ Increased community satisfaction.
- ♦ Improved brand equity.

Case Study - Health & Hygiene Month

We firmly believe that a healthy workforce is essential for the efficiency of an organization. In this modern era of industrialization & globalization, increased adaptation to technology and mobility solutions has led to a significant rise in diseases, and resultant deaths.

A large section of society still has no or limited access to basic healthcare services and remains unaware of benefits of maintaining good hygienic conditions. That is why hygiene and sanitation at the workplace plays an imperative role.

To create health and hygiene awareness, we celebrate "Employee Hygiene & Health" a theme-based month every year. In 2017, under this theme-based month, we organized:

- ♦ Several workshops, internal walk through audits and medical camps.
- ♦ Training sessions on Yoga, First Aid, Silicosis Awareness, WASH, Obesity & its prevention by internal and external faculty members.
- ♦ 'Chalta Bolta' where in the employees were quizzed on questions related to personal hygiene and health, and duly awarded.
- ♦ Hygiene study wherein a cross functional team audited all washrooms in the plant specialized doctors.
- ♦ A medical checkup camp in dispensary in association with MITR Hospital, Mumbai to provide free health checkup and consultation for blood pressure, blood sugar, body mass index by specialized doctors.
- ♦ Inaugural function for "Online Medical System" a software developed by in house team.

A series of positive impacts, from the initiatives undertaken, have been recorded by encouraging a healthy work life balance for our employees.

Figure 18: Employee Social Options

With the help of our dedicated employees and management's firm commitment, we have achieved huge success in all the activities. However, initially we were faced with low participation rate, due to lack of awareness of the proposed benefits.

Table 3: SDG 3 Targets & Roadmap										
SDG No.	SDG	Target No.	Target	Indicator No.	Indicator	Monitoring Parameters/ Corporate Targets	UOM	FY 15 Actual	FY 18 Actual	FY 22 Target
SDG 3	Ensure healthy lives and promote well-being for all at all ages	3.4	By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being	3.4.1	Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease	No. of beneficiaries generated through Health camps per year	Nos	50	714	1,000
		3.6	By 2020, halve the number of global deaths and injuries from road traffic accidents	3.6.1	Death rate due to road traffic injuries	Reportable Accident	Nos	8	0	0
		3.8	Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all	3.8.2	Number of people covered by health insurance or a public health system per 1,000 population	Number of Executives covered under Health Insurance	%	100	100	100
		3.D	Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks	3.D.1	International Health Regulations (IHR) capacity and health emergency preparedness	No. of beneficiaries generated through Health camps per year	Nos	50	714	1,000

Goal 6 – Clean Water & Sanitation

Why This SDG?

Water conservation is engrained in our corporate strategy which facilitated implementation of various projects that directly impact our performance towards achievement of SDG 6 (Clean Water and Sanitation). Water conservation is defined as "any action that reduces the amount of water withdrawn from water supply sources, reduces consumption, reduces the loss or waste of water, improves the efficiency of water use, increases recycling and reuse of water, or prevents the pollution of water "

Water scarcity, poor water quality and inadequate sanitation negatively impact the livelihood and food security of poor families across the globe. Access to clean water is an essential element for the creation of a sustainable world.

Water supports all lifeforms on this planet and there being no alternative to it makes it even more valuable. Limited availability of fresh water, deteriorating ground water table, changes in rainfall and precipitation patterns due to climate change have stimulated a string of changes in the mindset of consumers. Apart from availability, quality of drinking water is one big issue that needs to be tackled on a priority basis. The way companies discharge effluents in water streams further depreciates the quality of water streams. The water sustainability journey at Mahindra Sanyo started in 2008, when we inspected water practices leading to wastage. After identifying these flaws, various initiatives were adopted year on year. We are now at a stage that our consumption has come down to less than 3,000 m^3/day. We have been successfully maintaining ZERO liquid discharge-status. With this, we aim to move to the next level of excellence as India's best water usage company for steel making by 2020.

Prioritized Targets Under SDG 6

6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all

6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity

6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate

6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

6.B Support and strengthen the participation of local communities in improving water and sanitation management

Focus Areas

- Water Conservation
- Water Recycling, Efficiencies & Remediation
- Recycling, Waste Management & Reduction
- Biodiversity & Ecosystem
- Climate Change
- Responsible Procurement
- Human Rights
- Community Engagement
- Community Support & Development

India has an extensive need for improved water and sanitation solutions at micro level.

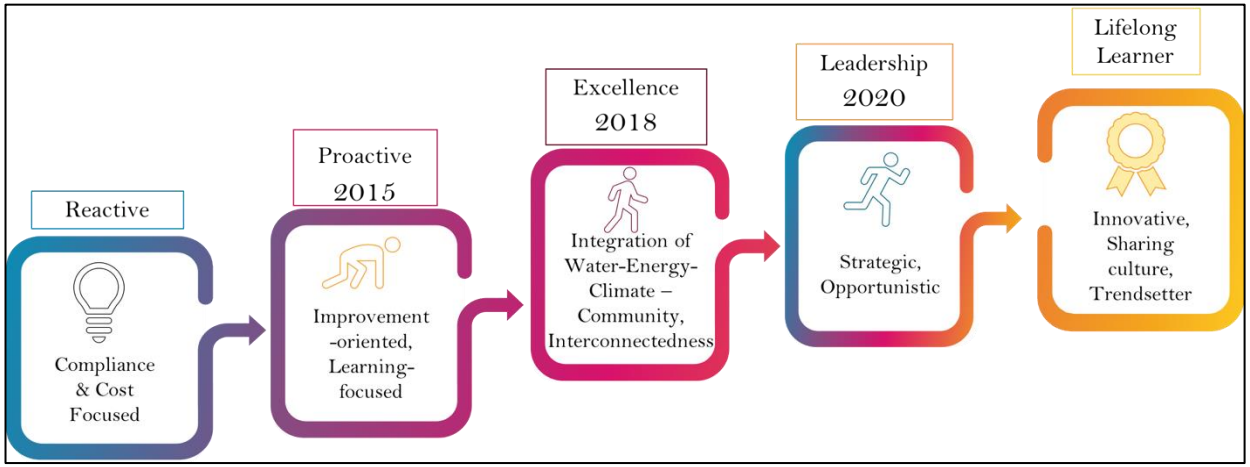


Figure 19: Mahindra Sanyo's Water Journey

We do not perceive them as mere problems to be resolved but rather as business opportunities that can be capitalized. Water plays a crucial role in the production of special steel and equally so in the lives of the company's employees. We have steadily contributed towards water conservation and have driven various projects that contribute to the Sustainable Development Goal 6. We began our journey by identifying key areas through a detailed need assessment. The company faced two key challenges that needed to be addressed urgently.

- The procurement cost of water rose 64 times within one year thereby creating financial insecurity.
- Absolute reliance on a single source of water supply created operational insecurity.

This motivated the company to set an ambitious target of achieving water neutral status by 2020.
To achieve this goal Mahindra Sanyo has appointed a dedicated cross-functional water aspect team. This team executes and oversees water audits to measure the company's water footprint on a regular basis. The water aspect team prepared a water balance study and accordingly took actions to maintain a 'Zero Waste Discharge' status.

We have converted all underground pipelines into above ground piping system to reduce our maintenance frequency and expenditure. We also succeeded in connecting all water outlets to form a closed loop system. We reuse our STP treated water for gardening after passing through sand & activated carbon filter. Also, we have implemented a robust integrated water management system. We have taken up various rain water harvesting projects, to combat water scarcity challenges, such as:

- Construction of check dam on rain water stream passing beside the plant & use of check dam water for direct industrial use.
- Use of roof top water for industrial top up.

We at Mahindra Sanyo also keep a check on processes where water wastage can be minimized or avoided. In mid-2016, the water team identified a continuous over-flow of water originating from the blooming furnace return trench resulting in an over extraction of water from the source. The team decided to divert the water to a cold well with the help of pipes that were not being utilized in the plant. The project was successfully completed in the month of November 2016. We have managed to save 150 m^3 of water per day since the project has been implemented. Mahindra Sanyo has also pledged compliance to WASH Principles promoted by the World Business Council for Sustainable Development. A baseline assessment was carried out using the WASH Self-Assessment tool to mark the current status of compliance. We have achieved 100% compliance in the following categories:

- Availability of sufficient, safe, acceptable, and physically accessible drinking water;
- Drinking water testing;
- Accessibility of water for washing and personal hygiene;
- Water supply system cleaning and disinfection;

- Water supply and drainage facility inspections/repairs;
- Water supply, sanitation services and safety/convenience improvements;
- Toilet/urinal safety, lighting and ventilation, design & maintenance;
- Medical waste & Sanitary product disposal;
- Cleaning of sanitary installations and disinfection of washrooms;
- Personal protective equipment (PPE) provisions;
- Training for cleaning and maintenance staff, and
- Monitoring and reporting on water-related diseases.

For the year 2018, we have mapped out a wide variety of projects and activities including WASH awareness and training sessions, employment of water saving technologies, and development of an SOP for cleaning, recharging and disinfecting drinking water stations.

Mahindra Sanyo's specific water consumption has been reduced by 27% in the last 5 years. We have been marching steadily towards achieving the Indian benchmark of Specific Water consumption per unit of steel produced. We have also surrendered our 50% allotted water quota to the regulatory body. Different initiatives undertaken till date have resulted in annual savings of ₹7 Million.

Business Impact

- Increased water use efficiency.
- Reduced procurement cost
- Improved brand admiration as responsible steel producer.
- Improved ESG performance.
- Improved adaptation to climate change impacts.
- Improved regulatory compliance.

Case Study - Water Month

Water is a success story at Mahindra Sanyo as we have considerably reduced our river water intake for industrial top up. We normally use water for cooling purposes and no effluent is being generated from the operations.

Over the last decade, Maharashtra region has seen a drastic increase in water prices which has led to increase in operating expenses for the company. In order to sensitize the importance of water conservation among the employees and the community, we conduct a 'Theme Based Water Month' every year. As a part of this theme-based month, various initiatives were undertaken like:

- Suggestion scheme for water savings / reduction.
- Training on efficient water utilization in operations.
- Water conservation awareness training sessions for shop floor people and housing colony
- Quiz and Poster Competition
- Small talks (Chalta-Bolta) conducted at Shop Floor and housing colony
- Street Play & drama on water saving.

Figure 20: Chalta Bolta

Table 4: SDG 6 Targets & Roadmap										
SDG No.	SDG	Target No.	Target	Indicator No.	Indicator	Monitoring Parameters/ Corporate Targets	UOM	FY 15 Actual	FY 18 Actual	FY 22 Target
SDG 6	Ensure availability and sustainable management of water and sanitation for all	6.4	By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity	6.4.1	Change in water-use efficiency over time	Reduction of river water intake for industrial use	M^3 / Ton LM	2.89	2.27	1.99
				6.4.2	Level of water stress: freshwater withdrawal as a proportion of available freshwater resources	Fresh surface water	M^3/Year	713,925	650,443	-
		6.5	By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate	6.5.1	Degree of integrated water resources management implementation (0-100)	Rainwater Harvested	M^3/Year	59,173	40,917	Depends on Annual Rainfall
		6.B	Support and strengthen the participation of local communities in improving water and sanitation management	6.B.1	Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management	Engage with external stakeholders (Local community)	Nos	0	126	235

Goal 7 – Affordable & Clean Energy

Why This SDG?

Renewable energy is a promising prospect for industrial and domestic consumers alike. Incorporation of renewable energy in primary and secondary energy consumption will greatly reduce the GHG emissions and allied climate change impacts. The fast-paced industrialization has already increased the CO_2 levels to a drastic limit. For special steel sector, deploying a waste heat recovery project greatly improves energy efficiency and resource intensity.

The renewable energy includes huge initial investment however in the long term the benefits achieved from reduced environmental damage and savings against remediation expenses surpasses the former.

Energy production is a major challenge that the world faces today. It is important to enable access to modern energy services, improve efficiency and increase the use of renewable sources of energy.

Transition to cleaner and accessible fuels of energy will foster the national commitment towards abatement of global warming. In view of above opportunities, Mahindra Sanyo has set a firm resolution to achieve 29% renewable energy in the secondary energy mix by way of Solar, Wind/Hydro and Waste Heat Recovery by 2022 from base line of FY 17. Apart from the use of renewable energy the company has also set a firm target to reduce the specific energy consumption by 20 % by 2022 from baseline of FY 17.

Prioritized Targets Under SDG 7

7.1 By 2030, ensure universal access to affordable, reliable and modern energy services

7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

7.3 By 2030, double the global rate of improvement in energy efficiency

FOCUS AREAS

- Renewables & Alternatives.
- Energy Reduction & Efficiencies
- Climate Change

SDG 7 & Business: The Connect

Mahindra Sanyo is well known for its Special Steel products in India and abroad. The company lays special emphasis on how efficiently it regulates the energy demand and utilizes the available energy sources to hedge its palpability against fluctuating energy prices and availability. We through our energy conservation and energy efficiency measures aim to be in line with the level of de-carbonization required to keep average global temperature rise below 2° C compared to pre- industrial ages. We have been recognized by our peers not only across the sector but within the Mahindra Group as well for achieving excellence in Energy Management. We have bagged CII's National Award for Excellence in Energy Management for three consecutive years in 2015, 2016 and 2017. Mahindra Sanyo was acclaimed as the most Energy Efficient Unit in Steel Sector for all three years. An article on 'Best Practices at MSSSPL' has been published in the Institute of Industrial Productivity – BEE Newsletter Magazine in 2015.

The company's initiatives and achievements are classified under 3 aspects as discussed below:

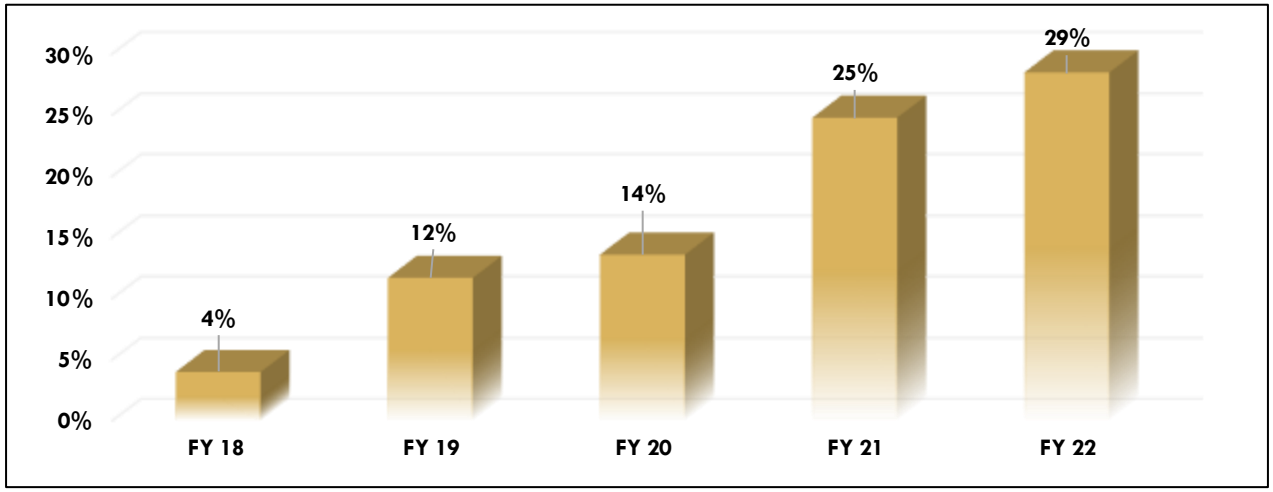
Energy Management

Our energy management journey started way back in 2011 when we first conducted a comprehensive Energy Audit by TERI. We developed our own Energy Management Policy and also designed an Energy Monitoring and Reporting System in 2012, to bring down our energy usage. In the same year

we also underwent Energy Audit by Schneider Electric India Pvt. Ltd., followed by another audit by Siemens India in 2013. Mahindra Sanyo has become the first company within the Mahindra Group in 2013, to be ISO 50001: Energy Management System (EnMS) certified by TUV. Since then the company has relied on its EnMS performance reviews. The gaps assessed during these reviews, are transformed into goals for each subsequent year. The targets are designed shop wise so that excellence can be achieved throughout. The Energy Conservation Norms are internationally benchmarked with BSE Germany. We monitor and control our energy consumption and requirement through PLC/SCADA system. Through these interventions, we have saved ₹10.36 Million annually since 2015. We have also initiated Internet of Things (IoT) study for next level automation of process monitoring. Till now we have installed 90 state of the art energy meters to strengthen the monitoring system. We have a dedicated cross functional Energy management team which consists of certified Internal Auditors trained by TUV India. We have also employed an Energy Manager who is a BEE certified Energy Auditor to review the objectives of Annual Energy Management Plan.

Figure 21: Solar Panels at Mahindra Sanyo

Figure 22: % Renewable Power of Total Power Consumption



Renewable Energy & Alternatives

Mahindra Sanyo had, long before identified the need to develop partnerships and invest in setting up clean, decentralized energy solutions to build resilience and decrease dependence on scarce conventional fuels for energy. In compliance to legal requirements we have submitted RPO fulfilment report to MEDA. We already have an installed capacity of 20 KWh solar rooftop panel and are in pursuit of achieving 4 MWh through various solar rooftop and ground mounted installations within the plant premises, resulting in huge annual savings. We also procure renewable power from Grid through open access mechanism. We have initiated revamping of all our Reheating furnaces to deploy Natural Gas as fuel, phasing out furnace oil completely to reduce Scope 1 emissions. We have also initiated a project for recovery of waste heat from flue gases of Eccentric Bottom Tap (EBT) Furnace. to generate power thereby emanating an annual savings of ₹8.64 Million in operational expenses

Energy Efficiency & Optimization

Mahindra Sanyo has prioritized energy efficiency across operations to meet the widening gap between the demand and supply of conventional sources of energy. We have become the 1st steel company from India whose GHG emission reduction Target for 2030 are approved by SBTi. In anticipation of changes in government legislations due to geopolitical advances, we adopted an internal carbon pricing mechanism to mitigate future investments risks and reduce overall demand for energy. We have modified EBT Electrode regulation mechanism in Steel Melting Shop and immediately realized an annual cost savings of ₹5.68 Million in

2015 followed by ₹22 Million savings in the subsequent year. We also reduced our Cycle time in Ladle Furnace to ascertain a huge savings in terms of both cost and CO_2 emission. We replaced all old induction motors with IE 3 (International Efficiency - Premium Efficiency) Motors. The Blooming Mill reheating furnaces were revamped to incorporate Oxy- Fuel technology in FY 15 resulting in annual cost savings of ₹14.2 Million in FY 15 alone. This technological upgrade also enabled us to harvest huge electrical and thermal savings annually. Additionally, we reciprocated this upgrade to heating furnaces in other shops thereby reaping similar benefits thereafter. We managed to reduce overall energy intensity by 23% in FY 18 compared to FY 14. Owing to various process improvements Specific Power Consumption reduced by 9% in FY 18 while Specific Fuel Consumption reduced by 27% in FY 18 compared to FY 14.

At Mahindra Sanyo Specific Energy Consumption (SEC) of Electric Arc Furnace (EAF) at Steel Melting Shop was at par with Asia/Pacific Special Steel Benchmark in 2017. We have targeted continuous reduction in SEC to achieve the European benchmark. We have realized a 26% reduction in scope-1 emissions and 14.5% reduction in scope-2 emissions in FY 18 as compared to FY 13 levels.

Business Impact

- Energy conservation.
- Pollution abatement.
- Energy security.
- Reduced environmental damage.
- Reduced operational cost.
- Improved brand image.
- Improved ESG performance

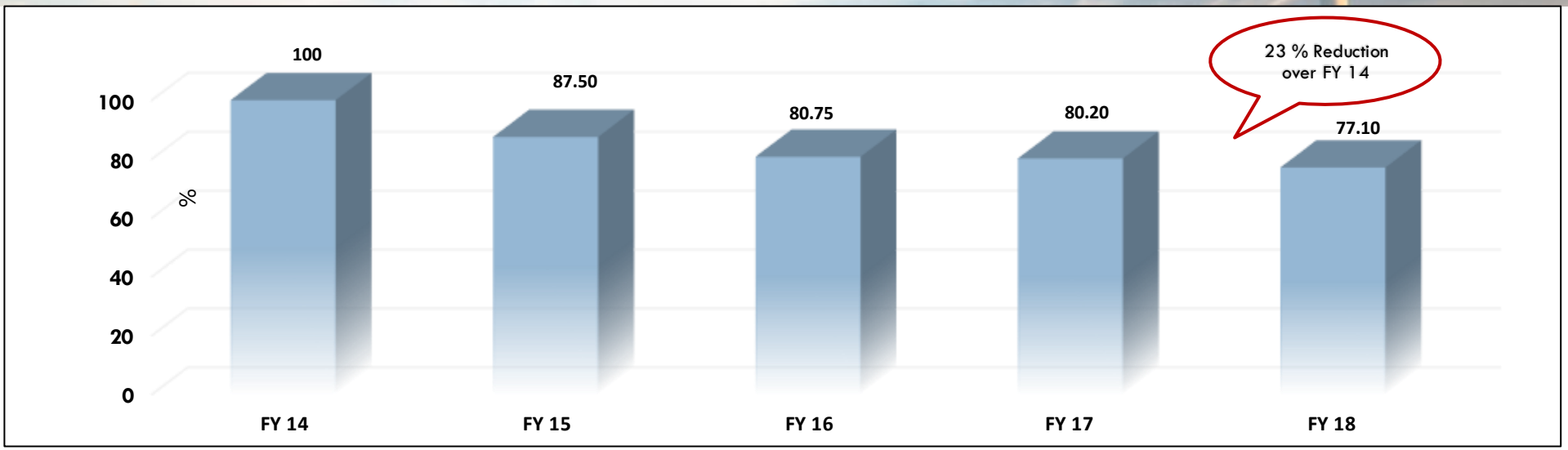


Figure 23: Energy Intensity Reduction Trend

Case Study - Energy Month

Energy is one of the most critical & material aspects which has an estimated impact of 18–20% on company's balance sheet. Furnace oil, electricity and renewables constitute various energy streams expended at the plant. We account for nearly 31% of Mahindra group's total energy consumption which makes us a key consumer among the group companies.

In 2017, Energy month kicked-off in September with an oath taking ceremony which infused a sense of responsibility in all the employees towards energy reduction. The month witnessed a plethora of activities involving energy awareness programs at shop floors wherein the employees were given key details of plant's energy consumption, benchmarking data and shop specific energy reduction ideas that can be effortlessly implemented by them. Employees were encouraged to share their views and ideas during these interactive sessions. As a part of this Energy month, we recorded nearly 100 suggestions from various employees on energy conservation & savings. Through this suggestion scheme, the company observed an annual savings of nearly 150,000 KWh. Furthermore, a series of external training sessions on specific areas of renewables, delay management, efficient furnace operation, energy efficient lighting and energy management in utilities etc. were conducted. Interdepartmental audits and competitions were also conducted which helped to identify the gaps. The gaps were later analyzed to formulate year on year reduction targets. Shop level quiz competitions to motivate employees and make them aware of the latest energy trends were conducted during the month. A poster competition was organized for the employees to spread the message of energy conservation.

Figure 24: Energy Month at Mahindra Sanyo

Plant visits to Mahindra group companies were also arranged in an attempt to understand the best practices and technologies a dopted across the group. During the concluding ceremony of the Theme Based Month, the employees were recognized for their efforts and outstanding performances. Best suggestions for energy conservation and optimization along with the shops which achieved substantial energy reduction were duly rewarded. Energy Month emancipates a good platform for innovative ideas, interactive learnings and development of future action plans under the apex leadership of Mahindra Sanyo.

Table 5: SDG 7 Targets & Roadmap										
SDG No.	SDG	Target No.	Target	Indicator No.	Indicator	Monitoring Parameters/ Corporate Targets	UOM	FY 15 Actual	FY 18 Actual	FY 22 Target
SDG 7	Ensure access to affordable, reliable, sustainable and modern energy for all	7.2	By 2030, increase substantially the share of renewable energy in the global energy mix	7.2.1	Renewable energy share in the total final energy consumption	Use of Renewable Energy & Waste recovery	% of total power consumption	0.05%	4%	29%
		7.3	By 2030, double the global rate of improvement in energy efficiency	7.3.1	Energy intensity measured in terms of primary energy and GDP	Reduce Specific power consumption	% Reduction per ton of production from year FY 13	4%	13%	31%
						Reduce Specific Oil consumption	% Reduction per ton of production from year FY 13	13%	24%	25%

Goal 8 – Decent Work & Economic Growth

Why This SDG?

Mahindra Sanyo believes that businesses revolve around the society with people at the heart. We aim to progressively improve community wellbeing including our own employees and foster inclusive growth and economic development. As industry frontrunners, we strive to ensure that our employees are completely engaged and enjoy a sense of ownership in the organization.

We create a healthy learning environment for our employees so that they can improve their skills and achieve higher income levels.

Promote inclusive and sustainable economic growth, employment and decent work for all. In order to eradicate poverty completely, economies need to create the conditions that allow people to have quality jobs. Sustainable economic growth requires employment opportunities that stimulates

Our employees engage with community members in order to equip them with necessary employment enhancement skills. We have transformed the lives of many untrained home-makers by providing them skills training to achieve additional sources of income.

We value innovation to drive the change. Business ethics and core values at Mahindra Sanyo signifies strong corporate culture. We have incorporated several employees' benefit interventions to achieve equitable value distribution. We constantly deploy a holistic approach of employee and community development which includes an active participation, proper communication, consistent planning and support. We are committed to provide safe and sound work environment to our employees.

At Mahindra Sanyo, the employee engagement scores – MCARES (employee feedback survey) trend line is consistently improving where in the last four years the score improved from 3.8 to 4.1.

Prioritized Targets Under SDG 8

8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries

8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labor-intensive sectors

8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services

8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavor to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programs on sustainable consumption and production, with developed countries taking the lead.

8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value

8.8 Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.

Focus Areas

- Materials Management
- Occupational Health & Safety
- Human Rights
- Workforce Diversity & Inclusion
- Employee Development
- Employee Wellbeing

- **Business Growth & Profitability**
- **Solvency And Financial Management**
- **Increase Sales from Value Added Products**
- **Product Innovation**
- **Process Innovation**
- **Development of Value-Added Products**

SDG 8 & Business: The Connect

As part of our commitment towards SDG 8, we ensure that, we promote sustainable economic growth, productive employment and decent work for all, through our acquired talent and diverse workforce. We invest a tremendous amount of time and effort to create a pool of talented and skilled workforce. We also create employment enhancement opportunities for women and youth coming from the underprivileged & impoverished sections of the society. We have initiated the Employee Social Options program (ESOP) which connects the employees to the destitute communities that lack resources and competencies to generate a decent income. Employees focus their activities around the areas of education and environment, apart from taking up several local initiatives like donation drives, teaching and creating awareness throughout the year. Career counselling sessions are also organized by the employees to provide best career advice to the local community people. The employees dedicated a total of 967 hours since April 2017 towards ESOPs.

We mainstreamed our efforts towards the economic empowerment of women through Self Help Groups (SHGs) and skill development programs. The employees plan and implement skill development classes for women on a need basis. We facilitate easy access to infrastructure, raw materials and other support to the Bachat Gats. In addition to this, we also formed women Self Help Groups to provide a platform for women to showcase their entrepreneurial spirit and ambitions. We recently conducted a 'Tailoring Training Programme' in collaboration with Govt. Polytechnic college in Pen, as a women empowerment initiative for 44 women. We intend to extend this initiative by introducing a certified beauty salon course. We also inaugurated a computer training program in December 2017, for the youth residing in nearby communities.

Business Impact

- Increased production.
- Employment opportunities for youth & women
- Increased standard of living
- Skillset Development
- Social harmony
- Improved brand image admiration
- Improved ESG Performance

Case Study - Earn & Learn Scheme

Mahindra Sanyo perceives that the development of unemployed youth in India can only be achieved by nurturing them with adequate skills and improving their employability. The company also lays special emphasis on talent development and management of its employees.

This philosophy enables us to create a healthy learning environment for our employees and the community in which we operate. We also promote our employees to extend their support to the deprived communities in the vicinity through knowledge sharing and capacity building activities.

We initiated the "Earn and Learn" Scheme in 2007, where in a course was designed to provide an on-job training to the students associated with the Multi-Disciplinary Professional Training Academy (MPTA). This program was established with an aim to bridge the gap between the skill sets acquired by students from the theory-based education system and the hands-on experience/skill sets required by the industry. For effective implementation of this program, the candidates are assessed on the basis of their interest and eligibility for the course. In order to successfully complete this three-year course, the enrolled candidates must undertake all industrial training sessions, lectures and annual examinations followed by an evaluation, all of which are conducted by MPTA, accredited by Tilak Maharashtra University. During this course, we provide stipend and the necessary infrastructure such as subsidized canteen facility to the trainees at our premises. Completion of this course does not guaranty full time employment in the company. The candidate has to successfully complete a 2-year extensive training in the concerned department in order to be inducted as a permanent employee.

About 40 employees superannuate each year from the company and this programme enables us to monitor our Human resource capacity at any given point of time. This program not only provides an optimum learning platform to the candidates but also instils a sense of independence and encouragement to study, earn & contribute to the overall progress of the company as well as the community.

So far, 194 students have benefitted from this programme, out of which 77 have been inducted permanently based on their academic & practical performance.

Table 6: SDG 8 Targets & Roadmap										
SDG No.	SDG	Target No.	Target	Indicator No.	Indicator	Monitoring Parameters/ Corporate Targets	UOM	FY 15 Actual	FY 18 Actual	FY 22 Target
SDG 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	8.3	Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services	8.3.1	Proportion of informal employment in non-agriculture employment, by sex	No. of livelihoods generated/ impacted/ affected	Nos	Data tracking started from FY 16	421	300
						New Self-Help Groups formed per year	Nos	Data tracking started from FY 16	2	2
		8.5	By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value	8.5.1	Average hourly earnings of female and male employees, by occupation, age and persons with disabilities	No. of livelihoods generated/ impacted/ affected	Nos	Data tracking started from FY 16	421	300
		8.8	Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment	8.8.1	Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status	Reportable Accident	Nos	8	0	0
						Safety Perfect days	Nos	Data tracking started from FY 16	21	28
						SAR	Nos	10.6	16	20

Table 6: SDG 8 Targets & Roadmap [Contd…]										
SDG No.	**SDG**	**Target No.**	**Target**	**Indicator No.**	**Indicator**	**Monitoring Parameters/ Corporate Targets**	**UOM**	**FY 15 Actual**	**FY 18 Actual**	**FY 22 Target**
SDG 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	8.8	Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment	8.8.2	Increase in national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status	Workmen: Establish survey parameters and improve Satisfaction Score	Score on a scale of 5	Data tracking started from FY 16	4.33	4.5
						Executives: To take MCARES survey and improve satisfaction score	Score on a scale of 5	3.87	4.04	4.75
						Engage with Internal Stakeholders (Employees, Union Leaders)	Nos	22	95	250
						Engage with external stakeholders (M & M Group Companies)	Nos	0	4	20
						Engage with external stakeholders (Suppliers, Service providers)	Nos	0	1	30

Goal 12 – Responsible Consumption & Production

Why This SDG?

Scarcity of resources is an economic reality in 21st century. The current consumption rate of resources globally is way higher than the rate at which the resources are replenished. This disparity has created an ecological imbalance. The difference in demand and supply of resources creates an astronomical shift in the market equilibrium thereby increasing the procurement cost of raw materials for manufacturing industries like Iron and steel. A paradigm shift towards equitable consumption patterns with a sense of responsibility towards the environment will reduce the stress on the ecosystem and biodiversity. To ensure a sustainable consumption and production pattern, we have undertaken the responsibility to reduce environmental impacts by reducing waste, optimizing inputs, practicing responsible procurement and greening the supply chain.

Sustainable consumption and production patterns ensure promoting resource and energy efficiency, sustainable infrastructure, and providing access to basic services, food and decent jobs for all. Its implementation helps to achieve overall development plans, strengthen economic competitiveness and reduce poverty.

In anticipation of capitalizing above opportunities we embarked on our resource intensity & recycled inputs journey back in FY 14, much before the SDGs were launched. Resource intensity and recycled inputs are key aspect of company's sustainability drive and corporate strategies. Thus, our focus lies in how efficiently we use the resources available to us to create a shared value for all. The focus area is to look for transformational ways to intensify and achieve the same or better outcome using fewer resources. Mahindra Sanyo has set an ambitious goal to achieve the ZERO Waste Landfill status, enhance consumption of recycled scrap by optimization of charge mix and stride to improve product yield by improving the process through technological advancements.

Prioritized Targets Under SDG 12

12.2 By 2030, achieve the sustainable management and efficient use of natural resources

12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.

Focus Areas

- Materials Management
- Supply Chain Engagement & Management
- Responsible Procurement
- Product Stewardship
- Water Recycling, Efficiencies & Remediation
- Recycling, Waste Management & Reduction
- Renewables & Alternatives
- Air Emissions
- ESG Governance Structure
- Corporate Culture
- Climate Change
- Community Engagement, Support & Development
- Employee Engagement

SDG 12 & Business: The Connect

Mahindra Sanyo is a resource and energy intensive manufacturing unit. The price volatility of the resources keeps the company motivated towards efficient utilization of resources. Our Aspect Teams constantly look out for innovative product and process modifications to reduce our material footprint. We accomplished a multifold increase in recycled/reused material in the input mix thereby achieving a tremendous reduction in land fill rate over the past 5 years.

In 2014, we initiated the collection & segregation of metallic scrap from other wastes in the plant premises and established a slag crushing unit in FY 17 for metal recovery from furnace slag.

We have upgraded the Steam Exhaust System at the continuous casting (CC) process. In the steam generation process of continuous casting, certain structural dysfunctionalities were causing excessive emissions that posed a severe threat to the business operations. To address this issue, the 10-year-old blower was refurbished by the mechanical maintenance team. This prominently reduced hydrogen emissions while the absence of steam made it easier for operators to work. Financially too, there was an enormous cost savings of about ₹2 Million.

Business Impact

- Production efficiency
- Cost savings
- Triple bottom line improvement
- Improved brand Value
- Improved product quality
- Better control on value chain.

Case Study - Waste to Wealth Month

Waste is a grave concern for industries across all sectors and the society alike. Hence Reduce, Reuse & Recycle principles of waste management have attained unprecedented significance for businesses across the globe today. Circular Economy is an emerging trend that the companies have started to incorporate in their operations. Mahindra Sanyo has made progressive efforts to convert its waste into economic opportunities.

We understand the importance of training in order to sensitize the workforce on shop floor on various sustainability aspects. We organized a 'Waste to Wealth' theme-based month in November 2016. During the programme, some of the major initiatives were taken up like:

- Shop-wise competition on Waste Metal and Material Collection.
- Suggestion scheme for better waste management.
- Awareness programme for workforce on shop floor.
- Drama / skit to make people understand the importance of waste management.
- Cloth donation camp.
- Exhibition on waste to wealth in JCMM School.

During this theme-based month, we have trained more than 250 people on the shop floor to inflict improvement in waste management. Shop-wise metal waste collection drive resulted in an annual savings of ₹6 million and assured recovery of 264 MT of precious metals. Furthermore, our maintenance team utilized discarded Mild Steel pipes for maintenance purpose which resulted in savings of ₹4 million under operating expenses.

Case Study - Dus Ka Dum

Mahindra Sanyo's key strategic priorities for FY 18 were 'Enhance Revenue', 'Enhance Profitability', and 'Improve Quality' by reducing internal rejections.

However, as the year commenced, we were interjected by an unexpected rise in Graphite Electrode cost which proved to be a huge drain on the profits and made the business almost unviable and unsustainable.

The impact of this price change was around Rs.10 Crores per month. This crisis posed an inevitable threat to the survival of the company and demanded immediate intervention. While there may be no easy solutions to such complex crises, there is always something each one can do to make a difference. The solution lies in awareness and collective positive action by the employees in their daily work areas. The top management took this issue to the shop floor and engaged with employees to explore innovative and firm steps that could be diligently taken to yield result and overcome this adversity. The company came up with 10 theme-based activities under the ambit of A:11 – Kaizen and Quality Control (QC) and named it as "Rise to Win: Dus Ka Dum". 8 themes were developed to leverage the cost factors associated with the procurement and utilization of Graphite electrodes in the Steel/Ring manufacturing processes, while 2 themes would leverage revenue factors associated with the Sales and Marketing strategy of the company.

The company assigned a dedicated Apex team governed by a Team Leader, to each of the themes where there was a possibility of reducing cost.

These achievements were a result of a spectacular display of the "Team Work" by our employees.

Figure 25: Dus Ka Dum

Table 7: SDG 12 Targets & Roadmap										
SDG No.	**SDG**	**Target No.**	**Target**	**Indicator No.**	**Indicator**	**Monitoring Parameters/ Corporate Targets**	**UOM**	**FY 15 Actual**	**FY 18 Actual**	**FY 22 Target**
SDG 12	Ensure sustainable consumption and production patterns	12.4	By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	12.4.1	Number of parties to international multilateral environmental agreements on hazardous waste, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement	Engage with external stakeholders (Suppliers, Service providers)	Nos	0	1	30
						Engage with external stakeholders (Institute, Professional Bodies, N.G.O.)	Nos	0	0	20
				12.4.2	Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment	SPM	(mg/Nm^3)	41	25	5
						SOx	(Tons/Day)	0.11	0.06	0.02
						NOx	(mg/Nm^3)	17	9.9	0
						Reduction in Landfill rate	Kg/ton	Data tracking started from FY 16	4.09	0
		12.5	By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	12.5.1	National recycling rate, tons of material recycled	Responsible e-waste management -recycle & safe disposal	Kg recycled (%)	100%	100%	100%

Goal 13 – Climate Action

Why This SDG?

Climate change is real and its happening now. The catastrophic after-effects of climate change have already surfaced in most parts of the world. The outcomes that scientists had predicted in the past are now occurring. Anthropogenic emissions of greenhouse gases are the primary cause of climate change across the globe. Climate change has impacted natural and man-made ecosystems systems alike globally. Melting icecaps and glaciers, changing precipitation patterns, rising sea levels, increasing global temperatures have disturbed the lives of many and forced them to look for a new livelihood to survive.

Countries need to take urgent action to combat climate change and its impacts. Changing weather patterns, rising sea levels, and more extreme weather events are disrupting national economies and affecting lives in a very severe way. It is important to look at affordable and scalable solutions to leapfrog to cleaner more resilient economies.

The need of the hour is to act cautiously and try to undo the wrongdoings of the past. This requires widespread cooperation and collaboration of nations, organizations and individuals in their respective capacities to develop resilient mitigation and adaptation strategies to combat climate change. Mahindra Sanyo is working on reducing the carbon footprint of its products, services and processes. The company has prepared a 5-year roadmap to address issues related to climate change.

Our GHG aspect vision aims to reduce GHG scope 1 and scope 2 emissions by 35 % by 2030 from baseline of FY 17. The aspect vision is linked to the company's vision of achieving a brand recognition as being socially responsible corporate by reducing Greenhouse Gas (GHG) emissions & abating global warming to build a better planet

Prioritized Targets Under SDG 13

13.2 Integrate climate change measures into national policies, strategies and planning

13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

Focus Areas

- Climate Change
- Energy Management
- Water Resource Management
- Renewables & Alternatives
- Disaster Management, Recovery & Relief
- Supply Chain Engagement
- Employee Engagement & Development

SDG 13 & Business: The Connect

Climate change effects have manifested themselves more rapidly than expected however after early 2000's, world has seen a slightly downward trend in the rate at which the global average temperature was rising. However, a slight rise in global temperature can cause expansive impacts on ecological and human systems. Ecological, social and economic systems have to adjust to the changing climate and its allied impacts thereof to ensure long term sustenance. This adjustment by both natural and human systems is referred to as 'Adaptation'. While reduction of the impacts of an activity by both natural and human systems through systematic counter-acting measures is called 'Mitigation'. Mahindra Sanyo has backed national and international commitments by developing both adaptation and mitigation strategies to extenuate the climate risk, that has been wreaking havoc on vulnerable social and ecological systems. Following categorical measures have been initiated by us:

- Anticipatory Adaptation Measures:
  - Evaluated Internal Carbon Pricing under the guidance of WRI [World Resource Institute]
  - Biodiversity Screening done by CII [Confederation of Indian Industry] to understand Biodiversity related risk from the operations.
- Reactive Adaptation Measures:
  - Reduction in Specific Electricity consumption.
  - Increased procurement of power/energy from renewable energy sources.

- The company has initiated revamping of the operations from oil based to Natural gas based. The company will phase out furnace oil by 2022.
- We have become the 1st Indian steel company, whose GHG emission reduction Target 2030 is approved by SBTi.

♦ Mitigation Measures:

- Planted more than 60,000 saplings in Hoshangabad district of Madhya Pradesh and areas near our manufacturing Plant in FY 18.
- In July 2017, 1,000 saplings were planted within our campus.
- As the part of Green School Program and ECO club activity, J.C. Mahindra Memorial School took the initiative to plant as many trees as possible.
- Under the 'Green Desk' initiative waste and reusable containers were collected and used to cultivate saplings in them. These saplings were then distributed amongst our employees.

Climate change adaptation can also reap non-climate related co-benefits such as enhanced social-learning and resilient societies.

At Mahindra Sanyo, to help create awareness about environmental protection the employees organize theme-based months every year in the month of June. The theme for 2017 was 'Connecting People to Nature – in the city and on the land, from the poles to the equator'.

The host nation was Canada. The emphasis was on creating a sustainable & healthy environment as well as encourage employees to supplement focus on environment-friendly, low-carbon and resource-efficient initiatives. Furthermore, training sessions on "Handling Hazardous Waste and Storage" and "Know our Carbon Footprint" were organized to make employees aware of the anthropogenic impacts on the environment.

Business Impact

- ♦ GHG Emission Reduction
- ♦ Reduce fossil fuel dependency
- ♦ Responsible energy management
- ♦ Reduced vulnerability to climate change impacts & Climate change awareness
- ♦ Contribution to global commitment of below 2° scenario.
- ♦ Improved brand image

Figure 26: Tree Plantation Drive with Employees

Figure 27: Tree Plantation Drive with School Children

Case Study - Science Based Targets Initiatives

Mahindra Sanyo became the first company from an emerging economy to set a science-based target on climate change and have it approved by the Science Based Targets initiative (SBTi). This officially recognizes that the goal is in line with the Paris Agreement's ambition of keeping global average temperature rise well below 2°C as compared to pre-industrial levels.

The company had set its target following a pledge from the chairman of the Mahindra Group, Mr. Anand Mahindra, who committed that all his companies would do this at the World Economic Forum in Davos in 2018. This was alongside a wider challenge he set out to businesses around the world, calling for 500 companies globally to commit to science-based targets in advance of the 2018 Global Climate Action Summit in San Francisco.

Mahindra Sanyo with the support of Carbon Trust developed its SBTi, through the use of a Sectoral Decarbonization Approach (SDA) methodology. This involved analyses of data to establish a baseline which enabled us to create targets and explore emission reduction pathways for two different company growth scenarios.

Following this approach, a firm target of 35% reduction in Scope 1 & 2 operational emissions per ton of steel produced by 2030, were set over the baseline of 2016-17 levels. These targets are in line with the emissions reduction targets, the entire sector needs to achieve in order to foster Paris Agreement.

To have a target approved by the SBTi, the companies also need to set ambitious goals for reducing their Indirect Scope 3 emissions. To support this the Carbon Trust not only helped us to calculate our global Scope 3 footprint but also assisted in setting 35% Scope 3 emission reduction targets per ton of steel produced by 2030, when compared to 2016-17 levels.

Figure 28: CII Greenco Summit 2018 – Awards Ceremony

To achieve these ambitious times bound targets, we have now channelized our efforts to increase sourcing of locally available recycled scraps thereby reducing manufacturing and transport emissions. We have also initiated investments in energy efficiency, renewable energy procurement, carbon to product, heat recovery, circular economy, IoT assisted efficiency improvements and R&D of next generation steel with least resource intensity.

Our vision is "to be the most admired, successful and socially responsible special steel manufacturer in India by 2019". This pro-growth strategy has allowed us to occupy a leadership position within the industry, both locally and globally. Mahindra Sanyo's robust approach to the environmental footprint reduction has placed the company in the league of leading companies globally.

Table 8: SDG 13 Targets & Roadmap										
SDG No.	SDG	Target No.	Target	Indicator No.	Indicator	Monitoring Parameters/ Corporate Targets	UOM	FY 15 Actual	FY 18 Actual	FY 22 Target
SDG 13	Take urgent action to combat climate change and its impacts	13.2	Integrate climate change measures into national policies, strategies and planning	13.2.1	Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)	Reduce Scope-1 Emission	% Reduction per ton of production from year FY 13	14%	26%	42%
						Reduce Scope-2 Emission	% Reduction per ton of production from year FY 13	4%	15%	42%
						SOx	(Tons/Day)	0.11	0.06	0.02
						NOx	(mg/Nm^3)	17	9.9	0
						Use of Renewable Energy & Waste recovery	% of total power consumption	0.05	4	29
						Reduce Specific power consumption	% Reduction per ton of production from year FY 13	4%	13%	31%
						Reduce Specific Oil consumption	% Reduction per ton of production from year FY 13	13%	24%	25%
						Reduction of river water intake for industrial use	M^3 / Ton LM	2.89	2.27	1.99

Table 8: SDG 13 Targets & Roadmap [Contd…]									
SDG No.	SDG	Target No.	Target	Indicator No.	Indicator	Monitoring Parameters/ Corporate Targets	UOM	FY 15 Actual	FY 18 Actual	FY 22 Target
SDG 13	Take urgent action to combat climate change and its impacts	13.3	Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	13.3.1	Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula	Number of saplings Planted	Nos	Nil	60,000	100,000
				13.3.2	Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions	Engage with Internal Stakeholders (Employees, Union Leaders)	Nos	22	95	250
						Engage with external stakeholders (Local community)	Nos	Data tracking started from FY 16	126	235
						Engage with external stakeholders (M & M Group Companies)	Nos	0	4	20
						Engage with external stakeholders (Suppliers, Service providers)	Nos	0	1	30

"Combating climate change is among today's most urgent global challenges, and also one of our biggest economic opportunities, Science-based targets align our business strategy with the goals of the Paris Agreement."

"While we are responsible for playing our part in preventing dangerous climate change, we also future-proof our growth and profitability by taking climate action in collaboration with our partners in the value chain. Science-based targets provide us with a clear road map for such an action plan."

Uday Gupta

Managing Director, Mahindra Sanyo Special Steel

Goal 17 – Partnership for the Goals

Why This SDG?

Long term partnerships enable shared value creation for both parties and the society they serve.

Governments alone cannot serve the purpose of fulfilling the targets under SDGs. Organizations have to step up and supplement financial and technological aid so that a collective effort can be made towards achieving the global goals. Approximately $3 Trillion investments are required every year to meet the sustainable development goals and targets.

Revitalizing the global partnership for sustainable development. Achieving sustainable development agenda requires partnerships between countries, the private sector and civil society. Inclusive partnerships based on shared vision and goals are needed to across geographies.

In a dynamic market space, businesses should set up local production facilities aligned to sustainable development, leveraging digital technologies in partnership with industry and civil bodies.

Improving access to technology and knowledge will foster innovation and aid idea generation. Innovative business models generate attractive returns while meeting social and environmental goals.

In India, Public Private Partnerships are gaining widespread acceptance. The associations under PPP model create a sense of security for corporations for their investment at the same time creating additional revenue streams for the Government. Mahindra Sanyo Special Steel Pvt. Ltd [MSSSPL] believes that networking and partnerships form a crucial element of its vision to create a healthy and prosperous society.

Focus Areas

- Business Ethics
- Corporate culture
- Supply chain engagement
- Community engagement
- Climate change

Prioritized Targets Under SDG 17

17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology.

17.9 Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation.

17.13 Enhance global macroeconomic stability, including through policy coordination and policy coherence.

17.14 Enhance policy coherence for sustainable development.

17.15 Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development - Multi-stakeholder partnerships.

17.16 Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.

SDG 17 & Business: The Connect

We at Mahindra Sanyo ensure business sustainability by creating long term value for our stakeholders. We value our stakeholder's requirements and concerns which we try to address through our stakeholder engagement program and materiality assessment. The materiality assessment brings up issues that mutually impact both the company as well as the internal/external stakeholders. We have built up a strong long-lasting relationship with various national and international organizations to share globally accredited best practices. Following are some of the key collaborations formed by us under this SDG:

- We are the founding member of India GHG Program.
- We are the member of the Green Power Market Development Group (GPMDG), India, which develops effective renewable energy purchase approaches for industries.
- We are the member of the Steel Stewardship Council - Responsible Steel and collaborates with them to develop a global sustainability certification scheme called 'ResponsibleSteel' for steel business which is a multi-stakeholder international platform, designed to provide certification of compliance with nominated sustainability criteria for allied sectors in the steel supply chain, and covers the full life cycle of steel.
- We are on the Advisory Board of the policy-making team for India operations of Alliance for Integrity, intended to promote integrity in the economic system of business entities and improve the conditions for clean business compliance.
- We have participated in WRI's Carbon Market Simulation Exercise in India. As a part of this initiative we will:
  - Participate in workshops and capacity building sessions for the implementation of the project;
  - Participate in project related surveys and discussions;
  - Participate in the simulated market and trading thereof.
- We are the part of WRI's (USA) initiative - Aqueduct Water Risk Atlas. This initiative is instrumental in mapping water risks and vulnerability.

Business Impact

- Strong Multi-stakeholder partnerships.
- Growth in investment opportunities.
- Brand and reputation improvement.
- Increased company resilience.

Case Study - Product Social Impact Assessment

The Roundtable for Product Social Metrics is a multi-industry initiative led by PRé Consultants dedicated to creating a standard for Product Social Impact Assessment. Launched in early 2013, this roundtable came into existence with the aim to address the fact that while the need to investigate the social impacts of businesses across their supply chains was clear, there was lack of a general agreement across industries on how to assess it. The Roundtable aimed to harmonize approaches and consolidate the principles for product social sustainability assessment, in line with other global initiatives, and develop solutions for their implementation.

During Phase 1 of the Roundtable the 'Handbook for Project Social Impact Assessment Version 1.0' was created which outlined the methodology for conducting a social impact assessment study at the product level. This framework was created through stakeholder meetings with the following –

- Corporate members like the BASF, L'Oréal, Steelcase, BMW group etc.
- Representatives from international agencies like UNDP, ILO, WBCSD and SAI.
- Researchers from technical universities of Berlin, Denmark and California.

In subsequent phases this methodology was refined based on case studies by corporate members and developments in the field of social sustainability.

Mahindra Sanyo became the member of the Roundtable in Phase 3 (2015-16). In this phase, the company conducted a pilot study in collaboration with the BMW Group to verify if the methodology and indicators that were going to be a part of version 3.0 of the Handbook were suitable for assessing a product that has its life cycle spread across geographical borders.

For this cradle to gate study the product selected was the Tapered Roller Bearing. The social impacts of the product were assessed right from the extraction of the raw materials for steel manufacturing, manufacturing phase of the bearing rings, to the delivery and assembly of ring product. The steel rings for the bearings were produced by us in India; warehoused in Hungary; the bearings manufactured in Hungary and finally assembled by the BMW Group, for the BMW 1 Series cars that were produced in Germany. The results of this study were presented by representatives of the BMW Group and Managing Director of Mahindra Sanyo in the 5th International Conference on Social Life Cycle Assessment. In Phase 4 of the Roundtable (2017-18), we collaborated in the process of updating the Handbook.

Figure 29: Stakeholder Engagement

Additionally, we conducted a cradle to gate case study where we assessed the updated methodology by utilizing the indicators for the 'Worker' and the 'Small Scale Entrepreneur' stakeholder groups (as defined by the Handbook). We aimed at utilizing the updated framework to strengthen our Sustainable Supply Chain Management initiative.

Mahindra Sanyo is a part of this Roundtable as it is strongly invested in developing a comprehensive sustainability assessment methodology. The company ascertained the benefits of integrating Environmental and Social Sustainability initiatives in its approach to address its value chain actors. As the first steel company globally to have its corporate climate change targets approved by Science Based Targets Initiatives (SBTi), we aim to address the interlinkages between our Climate actions and Social activities in our supply chain within the larger framework of the Sustainable Development Goals. Through this approach the company envisions to facilitate better decision making, product development, and value creation.

SASB Impact Quantification

Methodology

The concept of Impact Quantification, the company adopts in this report is the one used by Sustainability Accounting Standards Board (SASB). The following methodology is extracted from an article – 'The Relationship between Investor Materiality and the Sustainable Development Goals: A Methodological Framework. The impact quantification methodology is a subsequent study of materiality assessment established by SASB to identify the material ESG issues at an industry and sector level that are financially relevant for investors, as they affect the financial performance of a company. SASB is a San Francisco-based non-profit organization that aims to develop measurement standards for reporting on material environmental, social, and governance (ESG) issues known as the "non-financial information" that is as relevant as the financial information. The relevance of sustainability issues often referred to as – Materiality – varies across industries. So, SASB has developed the Sustainable Industry Classification System™ (SICS), in which the businesses across world are divided into 10 sectors which are further subdivided into 79 industries. The companies are grouped based on various parameters such as similar resource intensity, sustainability risks and opportunities.

The 40 general issues were captured from the materiality assessment done by us using DATAMARAN tool. The 40 generic Mahindra Sanyo issues were mapped to the 30 SASB general issues categorized under environment, social capital, human capital, business model and innovation, and leadership and governance. Then following SASB methodology, SASB's 30 generic ESG issues were mapped to the SDGs. In this analysis, SDG 17 is not considered for the impact quantification as it is an overarching one covering all SDGs.

However, targets and roadmap have been identified for SDG 17 since it has been prioritized during the assessment as being material for our sustainability journey. Furthermore, different issues can have a varying degree of impact on the SDGs, so it was essential to map SASB's 30 generic ESG issues down to the target level for each SDG in order to amplify the level of detail of the assessment.

These mappings represent the basis of the framework that incorporates the computation of a set of indices (both at a goal and a target level) that measure the ability of SASB's issues to impact the SDGs and the relevance of SASB's issues to the SDGs.

Moreover, mapping at the target level facilitated the calculation of secondary indices, for each of the above-mentioned sets, that measure the intensity of impact of each SASB's issue on a given SDG. In the analysis 107 targets were considered. The 169 targets also include means of implementation targets to facilitate the outcomes. SDG17 – 'Partnership for Goals', comprises of 19 such targets, and there is a total of 43 more under SDGs 1–16 (where they are separately identified using small letters after the goal number, e.g., 13.b).

For this assessment, at a goal level for each SASB issue the SDG Relevance Index (SRI) was calculated. SRI is the ratio between the number of SDGs impacted by a specific material issue to the total number—16—of SDGs:

At a target level, for each SASB issue the Target Relevance Index (TRI) was computed. TRI is the ratio between the number of targets impacted by a specific material issue on the total number of targets, that shows the ability of each SASB's issue to impact targets.

To measure the intensity of impact on a given SDG of each issue, for each SASB issue and for each SDG, a secondary index was calculated, the Target Specific Relevance Index (TSRI). TSRI is the ratio between the number of SDG targets impacted by a specific material issue to the total number of targets of SDG.

By symmetry with the previous step, the number of SASB's generic ESG issues that impact each of the SDGs (MI) were identified and an ESG Relevance Index (ERI) was calculated for each SDG to measure the extent to which the SDG is impacted by the 30 SASB issues.

At target level, to measure the extent to which the single target is impacted by the 30 SASB's issues, the number of SASB's issues affecting each target and an ESG Target Relevance Index (TERI) was calculated.

In this case, as a secondary index for each SDG, an ESG Target Specific Relevance Index (TSERI) was calculated by averaging the TERIs related to each SDG.

However, a caveat to this first set of measures shall be added. The SASB methodology is based simply on counts of various kinds. It does not consider the fact that a material SASB issue in one sector could be more important than another due to the absolute value of the topic (for example, the total amount of GHG emissions is likely to vary across sectors). However, we have built upon this methodology in the sense that comprehensive mapping of SASB issues with SDGs, Targets and Indicators has been done to factor in sector specific relevance. An absolute value scale can be

apportioned to the SASB issues, but the methodology is still in early stages of development.

Results And Inferences

The table 9 shows the top 4 SASB general issues which have the highest SDG Relevance Index and Target Relevance Index. 'Life Cycle Impacts of products & services' and 'Supply Chain Management' share the 1st rank on SDG Relevance Index as they impact maximum number of SDGs which implies that they have highest ability to impact the SDGs and are of critical importance for Mahindra Sanyo. 'Supply Chain Management' is also ranked 1st on TRI as it impacts maximum number of targets, 20 out of 107 selected targets, which implies that SCM has the highest ability to impact targets.

The table 10 shows the comparative relevance of top 4 SASB issues (according to TSRI) with the impacted SDGs, based on the number of targets impacted within a SDG. For Example, Energy Management impacts all the targets of SDG 7 which implies that the intensity of impact of Energy management on SDG 7 is more than SDG 3, SDG 12 or SDG 8.

Table 9: SDG & Target Relevance Index

SASB General Issue Category	Impacted SDGs	# of SDGs Impacted	# of Targets Impacted	SDG Relevance Index (SRI)	Target Relevance Index (TRI)
Lifecycle impacts of products and services	3, 6, 7, 8, 12, 13	6	13	38%	12%
Supply chain management	3, 6, 7, 8, 12, 13	6	20	38%	19%
Materials sourcing	3, 6, 8, 12, 13	5	8	31%	8%
Waste and hazardous materials management	3, 6, 8, 12	4	11	25%	10%

Table 10: Target Specific Relevance Index

SASB General Issue Category	SDG Impacted	# of Targets Total	# of Targets Impacted	Target Specific Relevance Index (TSRI)
Energy management	3	9	3	33%
	7	3	3	100%
	12	8	3	38%
	13	3	1	33%
Water and wastewater management	3	9	1	11%
	6	6	6	100%
	12	8	3	38%
Lifecycle impacts of products and services	3	9	3	33%
	6	6	2	33%
	7	3	3	100%
	8	10	1	10%
	12	8	3	38%
	13	3	1	33%
Supply chain management	3	9	4	44%
	6	6	4	67%
	7	3	3	100%
	8	10	4	40%
	12	8	3	38%
	13	3	2	67%

Table 11: ESG Target & Target Specific Relevance Index						
SDG No	No of ESG Issues Impacting each SDG	ESG Relevance Index (ERI)	Targets	No of ESG Issues Impacting each target	ESG Target Relevance Index (TERI)	ESG Target Specific Relevance Index (TSERI)
SDG 3	18	60%	3.4	8	27%	32%
			3.6	5	17%	
			3.8	11	37%	
			3.9	14	47%	
SDG 6	12	40%	6.1	4	13%	21%
			6.2	4	13%	
			6.3	9	30%	
			6.4	7	23%	
			6.5	6	20%	
			6.6	8	27%	
SDG 7	10	33%	7.1	6	20%	26%
			7.2	8	27%	
			7.3	9	30%	
SDG 8	14	47%	8.1	1	3%	21%
			8.2	8	27%	
			8.3	6	20%	
			8.4	6	20%	
			8.5	8	27%	
			8.8	8	27%	
SDG 12	14	47%	12.2	10	33%	28%
			12.4	11	37%	
			12.5	11	37%	
			12.6	1	3%	
SDG 13	8	27%	13.2	5	17%	17%

The table 11 provides three indices viz. ERI, TERI and TSERI to quantify the relevance of SDGs and targets with respect to the SASB ESG issues. ERI for SDG 3 is the highest i.e. 60%, which implies that of 30 SASB ESG issues, 18 issues impact SDG No 3 indicating that SDG 3 holds critical importance for Mahindra Sanyo. TERI for Target 3.9 under SDG 3 is the highest i.e. 47%, which implies that of 30 SASB ESG issues, 14 issues affect target 3.9 indicating that target 3.9 holds critical importance for the company. Averaging the TERIs across each SDG, as defined in (6), we calculated the Target Specific ESG Relevance Index (TSERI). Table above shows that both on a goal and target level the SDG most impacted by SASB's issues is SDG 3 (good health and wellbeing) 60% and 32%. The TSERI ranges from 17% for SDG 13 (Climate Action) to 32% for SDG 3, with a mean of 23.8

Intended Nationally Determined Contributions (INDCs)

The international climate agreement marked a historic milestone in our race to combat climate change and its allied impacts. In December 2015, at the United Nations Framework Convention on Climate Change (UNFCCC) - Conference of the Parties (COP21), the member countries came together in Paris and ratified the agreement. Hence it is also known as 'Paris Agreement'. The countries publicly conferred their post-2020 climate actions under the new multilateral agreement, which they termed as their Intended Nationally Determined Contributions (INDCs). The climate actions postulated in these INDCs would largely determine how the countries will achieve the long-term goals of the agreement and whether their collective effort would be sufficient to hold the average global temperature rise well below 2°C and achieve net neutrality in emissions later on. Mahindra Sanyo intends to align its initiatives with the INDCs of India and the prioritized SDGs to show its commitment towards nation building, global peace and prosperity.

Table 12: Shortlisted INDCs Relevant To Mahindra Sanyo

Criteria	India's Target	Mahindra Sanyo's Contribution & Initiatives	SDG Connect
Policy Framework	• Policies to promote actions that address climate concerns also including fiscal instruments like coal cess, cuts in subsidies, increase in taxes on petrol and diesel, market mechanisms including Perform Achieve and Trade (PAT), Renewable Energy Certificates (REC) and a regulatory regime of Renewable Purchase Obligation (RPO). • The institutional arrangement for offtake of renewable power will be further strengthened.	• Mahindra Sanyo is currently not under PAT Scheme. • However, Mahindra Sanyo does purchase REC from the grid to meet RPO obligations. • REC units procured during FY 2017-18 are 8,242,487	8 13
Mitigation Strategy			
Clean & Efficient Energy System			
Promotion of Clean Energy	• India to expand its renewable portfolio to 175 GW.	• Mahindra Sanyo has developed a five-year rolling road-map for its renewable energy consumption. • Mahindra Sanyo aims to increase its renewable energy share to 20% of total energy/power requirement • Company has planned to install a solar plant of 4MW and purchase renewable energy from open access to further meet its RPO obligation.	7 12 13 17
Wind Energy	• With a potential of more than 100 GW, the aim is to achieve a target of 60 GW of wind power installed capacity by 2022.		
Solar power	• The ambitious solar expansion programme seeks to enhance the capacity to 100 GW by 2022,		

Enhancing Energy Efficiency			
Efficient lighting in India	• India has launched an ambitious plan to replace all incandescent lamps with Light-emitting diode (LED) bulbs leading to energy savings of up to 100 billion kilowatt hours (kWh) annually.	• Mahindra Sanyo has initiated replacement of its current plant lighting system by energy efficient LEDs.	7 12 13 17
GRIHA (Green Rating for Integrated Habitat Assessment),	-	• Mahindra Sanyo has planned to get its administrative block IGBC certified.	
Developing Climate Resilient Urban Centers			
Smart Cities Mission,	• 100 smart cities	• Mahindra Sanyo supports Swachh Bharat Abhiyan. • As a part of this initiative, Mahindra Sanyo employees conducted swachhata abhiyan within and nearby areas of Khopoli, Maharashtra	8
Promoting Waste to Wealth Conversion			
Waste to Energy	-	• Mahindra Sanyo has formed a cross-functional team to ensure waste management across the site. • Company has developed a five-year rolling roadmap to improve waste handling, disposal, degeneration across the shop floor. • Mahindra Sanyo have conducted GAP assessment for Zero Waste to landfill certification from competent third party in year 2017.	7 12 13
Solid Waste Management (SWM)	-		8 12 13
Waste Water Management	• Initiatives on waste water management would cover an additional population of 41 million and enhance recycling and reuse of treated water.		6 12 13
Swachh Bharat Mission' (Clean India Mission)	-	• Mahindra Sanyo supports Swachh Bharat Abhiyan. • As a part of this initiative, Mahindra Sanyo employees conducted swachhata abhiyan within and nearby areas of Khopoli, Maharashtra	3 6 8 12 13 17
Planned afforestation	• Government of India's long-term goal is to bring 33% of its geographical area under forest cover eventually.	• Under Mahindra Hariyali programme, Mahindra Sanyo planted nearly 1 Lac saplings in Hoshangabad District of Madhya Pradesh	13

Abatement of Pollution			
Common Effluent Treatment Plants (CETPs)	-	• Mahindra Sanyo installed an in-house Sewage treatment plant to recycle all its domestic waste water. • Domestic waste water treated is further used for gardening purpose.	3 6 12 13
Zero Liquid Discharge (ZLD)	-	• As per Environmental Consent, Mahindra Sanyo maintains Zero Liquid Discharge from its operations.	
National Air Quality Index (AQI)	-	• As a part of AQI, all emission stacks are monitored on monthly basis. • Emissions observed from stacks are well below the statutory norms. • No grievances received from nearby community on air pollution issues.	3 12 13
Municipal Solid Waste Management (Management and Handling) Rules	-	• Mahindra Sanyo's waste management practices are aligned to Municipal Solid Waste Management and Handling Rules	8 12 13
Citizens And Private Sector Contribution To Combating Climate Change	• To spend 2% of annual profit on Corporate Social Responsibility (CSR) activities.	• Women Empowerment Under CSR initiative, 2 new Self-Help Groups formed on self-rolling basis. • Health Under CSR, 714 beneficiaries generated from various health camps in FY 18. Supports Old-age Home by providing medical aid. • Education & Skill Development Under CSR, 421 beneficiaries generated from education related activities in FY 18 Organized Road Safety awareness program for JCMM school students. Sponsors students for Diploma Engineering (Earn & Learn)	3 13 17
	• The Indian industry has also participated in voluntary carbon disclosure programmes	• Mahindra Sanyo submitted its response to CDP Climate Change and Water Disclosure. • Mahindra Sanyo is also a founder member of India GHG Programme.	6 7 8 12 13 17
	• GreenCo Rating System	• Mahindra Sanyo plans to assess its operations as per GreenCo ratings. • Mahindra Sanyo has done self-assessment of its sustainability practices as per DJSI	6 7 8 12 13 17

Water Management	• The adaptation strategies for the water sector focus on enhancing efficient use of water, ensuring access and tackling the adverse impact of Climate Change. • The transboundary and regional issues also need to be factored in. • National Water Mission (NWM) • Ground Water • Rainwater harvesting • Neeranchal is a recent programme by Government to give additional impetus to watershed development in the country. • National River Conservation Directorate	• At Mahindra Sanyo, water is being used for cooling purpose. Major source of water is Patalganga River (90%) and rainwater. • During FY 2017-18, Mahindra Sanyo met 6% of its water requirement from Rainwater harvesting. • In last 10 years water withdrawal reduced by 70% • Total water withdrawal from the river is less than 5% hence it does not impact river ecosystem. • No complaint received from government and nearby community for exploitation of river source.	6 8 12 13 17
Protecting Biodiversity and Himalayan Ecosystem	-	• Mahindra Sanyo conducted Biodiversity Assessment of its operation during Sept 2017. • No significant impacts of operations observed on biodiversity and ecosystem	13
Health	-	• Mahindra Sanyo has continuous focus on health of employee and nearby community. • Mahindra Sanyo have in-house dispensary for all employees. Medicines and treatment are free • No impacts of operations observed on employees and nearby communities' health. • Mahindra Sanyo has signed WBCSD's WASH pledge. • During occupational health theme-based month, numerous programme conducted to create awareness on health within company, for employees and contractor workforce.	3 17
Adaptation under state actions plans on Climate Change	-	• Reduced Specific Electricity consumption. • Increased procurement of power/energy from renewable energy sources. • Planted more than 60,000 saplings in Hoshangabad district of Madhya Pradesh and areas near Mahindra Sanyo in FY 18. • Mahindra Sanyo becomes 1st steel company in India and globally, whose GHG emission reduction Target 2030 is approved by SBTi. • Evaluated Internal Carbon Pricing under the guidance of WRI [World Resource Institute]	7 8 12 13

Knowledge Management And Capacity Building			
National Training Policy	-	Mahindra Sanyo ensures adequate training & development of employees is undertaken. Some programs are: • Ergonomics Training • CPR Training program • Mahindra Yellow Belt Training Program • First Aid Training program • EHS Policy Awareness for Staff • Road Safety awareness programme	12 13 17
Skill India	-	Mahindra Sanyo also provides skill enhancement training to employees and local community members such as: • Achievement Motivation training • Bank awareness programme • Career counseling programme • Computer Training Session • Tailoring Training Programme	

5. Peer Mapping & Review

Table 13: SDG Mapping of Industry Peers

	SDG No.	SDG	Arcelor Mittal	POSCO Steel	Tata Steel Group	Hyundai Steel Company	JSW Steel Limited	Mahindra Sanyo
Prioritized SDGs	1	No Poverty				*	*	
	2	Zero Hunger						
	3	Good Health And Well-Being	*	*	*	*	*	*
	4	Quality Education		*		*	*	
	5	Gender Equality		*			*	
	6	Clean Water And Sanitation	*	*	*		*	*
	7	Affordable And Clean Energy	*				*	*
	8	Decent Work And Economic Growth	*	*	*		*	*
	9	Industry, Innovation And Infrastructure	*	*			*	
	10	Reduced Inequality		*		*	*	
	11	Sustainable Cities And Communities	*	*		*	*	
	12	Responsible Consumption And Production	*		*	*	*	*
	13	Climate Action	*		*		*	*
	14	Life Below Water						
	15	Life On Land	*				*	
	16	Peace And Justice Strong Institutions						
	17	Partnerships To Achieve The Goal	*				*	*

Note: Above data has been prudently interpreted from Sustainability/Integrated Reports and CSR Reports of all companies available on public domain.

6. SDG Connect in the Supply Chain

Introduction

Building and maintaining a resilient supply chain is a key success factor for any business in a dynamic marketplace. It is now well established that sustainability plays a crucial role in the procurement and sourcing process more than ever. Mahindra Sanyo Special Steel Private Ltd. has undertaken a leadership commitment towards the alignment of the sustainable development goals with their value chain. So, the company constantly engages with its suppliers to communicate its intended contributions and seeks out supplier cooperation to attain a 100% sustainable supply chain.

Sustainable Supply Chain Management Policy (SSCM)

Our policy lies on the strong groundwork of developing and maintaining a mutually beneficial relationship with our suppliers. This includes working with them on initiatives that revolve around environmental, social and ethical dimensions. The policy lays down principles that are fair, ethical and transparent in all aspects. The policy also fosters our commitment to extend any financial and technical support to the suppliers deficient in meeting the regulatory & statutory standards, and the specified code of conduct.

Code of Conduct

The Code of Conduct in its broad purview contains "Minimum Standards" & "Qualifying Standards" that we expect our suppliers to comply with. The standards are grouped into three main areas: Environment; Labor & Business Ethics, wherein we encourage our suppliers to continually improve their performance metrics.

Figure 30: Supplier Engagement Summary

Mahindra Sanyo SSCM Initiatives & The SDG Linkage

We believe that by greening the Supply Chain we can improve the resource intensity, reduce operating expenses, understand the impacts of product over their entire life cycle, reduce direct & indirect GHG emissions, increase brand image and build stronger stakeholder relationships – internal as well as external. By improving the ESG performance, we have increased labor productivity, saved costs, and positively impacted the society.

We feel that SDG 3 (Ensure healthy lives and promote well-being for all at all ages), SDG7 (Ensure access to affordable, reliable, sustainable and modern energy for all), SDG 12 (Ensure sustainable consumption and production patterns), SDG 13 (Take urgent action to combat climate change and its impacts), SDG 17 (Strengthen the means of implementation and revitalize the global partnership for sustainable development) and their related targets have the most immediate relevance to our value chain.

Mahindra Sanyo has taken various measures and initiatives to strengthen its supply chain such as:

- The capacity building programs for the suppliers in collaboration with the British Standards Institutions (BSI). In fact, we have

Table 14: SSCM Roadmap						
Aspects/ Initiatives	**UOM**	**FY 18**	**FY 19**	**FY 20**	**FY 21**	**FY 22**
Engaging Suppliers for collaborative Sustainability Initiatives	Number/ %	Tier-I (13)	Tier-I (13); Tier-II (6)	Tier-I (15); Tier-II (15)	Tier-II (15); Tier-III (10)	Tier-II (15); Tier-III (10)
Improving Eco Efficiency: Scope 1 reduction	CO_2-e Kg/MT	Baseline study	Data Collection	3% (Tier-I)	4% (Tier-I); 2% (Tier-II)	4% (Tier-I); 2% (Tier-II)
Improving Eco Efficiency: Scope 2 reduction	CO_2-e Kg/MT	Baseline study	Data Collection	1% (Tier-I)	1.5% (Tier-I); 0.5% (Tier-II)	1.5% (Tier-I); 0.5% (Tier-II)
Improving Eco Efficiency: Scope 3 reduction	CO_2-e Kg/MT	Baseline study	Data Collection	0.5% (Tier-I)	0.75% (Tier-I); 0.5 % (Tier-II)	0.75% (Tier-I); 0.5 % (Tier-II)
Improving Eco Efficiency: Water reduction	M^3/MT	Baseline study	5%	7%	8%	10%
Improving Eco Efficiency: Plantation with Suppliers	No. of saplings planted	225	250	400	500	600
Procurement Practices: Institute and align policies		5% weightage on sustainability parameters for vendor rating	5% weightage on sustainability parameters for vendor rating	10% weightage on sustainability parameters for vendor rating	10% weightage on sustainability parameters for vendor rating	10% weightage on sustainability parameters for vendor rating
Appreciation for most sustainable supplier		Policy for appreciating suppliers with sustainability initiatives	Appreciate top 3 suppliers with memento in vendor meet.	Appreciate top 5 suppliers with memento in vendor meet.	Appreciate top 5 suppliers with memento in vendor meet. Consider more business share.	Appreciate top 5 suppliers with memento in vendor meet. Consider more business share.

our own internal auditors trained on BS 8903. We also have our auditing Self-Assessment Questionnaires (SAQs) prepared with the help of BSI.

- Development of a Supplier Satisfaction Index in 2016, wherein weightage for sustainability parameters was assigned to evaluate supplier ratings
- Recognition of sustainability credentials of suppliers through awards.
- Comprehensive Risk mapping across the supply chain in order to improve suppliers' understanding of the environmental and social impacts.
- 'Road Safety Week' organized in January 2017. The theme for this week was 'Road Safety - Time for Action'.
- Collaboration of our waste to wealth team with the Lions Club, Khopoli to conduct a clothes donation drive in January 2017.
- Under the 'Swachh Bharat Abhiyaan', 23 volunteers conducted a cleanliness drive followed by a workshop on the importance of cleanliness in January 2017 at a local Municipal School in Khopoli

Table 15: Mahindra Sanyo Interventions & The SDG Linkage		
Our Interventions	**Initiative**	**SDG**
1. Admach Systems Pvt. Ltd	♦ The company conducted several workshops & seminars with Admach Systems on the topic of SSCM. ♦ On their recommendation Admach systems set up a rain water harvesting project in their factory which has led to a large reduction in their water utilities bill. ♦ They have also planted 250 trees along with guards. The trees are connected through a Drip Irrigation System.	• SDG 6 • SDG 12 • SDG 13 • SDG 17
2. Parikh Metaliks Pvt. Ltd	♦ They have begun to recycle the sand used in manufacturing of castings by crushing and reusing it as backing sand for further molding, thereby reducing regular use of fresh sand. ♦ The foundries at Kolhapur have set up a Thermal Sand Reclamation plant. This sand can be reused as fresh sand, which saves cost as well as natural resources. ♦ The company utilizes the runners & risers (sorted grade-wise), cut down from the manufactured castings, as a raw material along with fresh scrap. Hence, ensuring the waste is recycled and reused. ♦ They have also replaced CFL bulbs with LED lights for better energy management. ♦ They have incorporated energy efficient equipment and energy meters to monitor energy consumption.	• SDG 7 • SDG 8 • SDG 12 • SDG 13 • SDG 17
3. Graphite India Limited	Following the roadmap Mahindra Sanyo introduced to Graphite India, the company took up: ♦ A massive tree plantation drive that added 10,244 trees on their plant premises spread across 55 acres at Satpur, Green Nasik. ♦ A war on dust by collection of dust samples, installing water scrubbers & green partitions to protect habitats around followed by regular dust cleaning. ♦ Efficient and economic use of water. ♦ Resource optimization of existing resources and prioritizing use of renewable sources of energy like the wind & the hydro, with the help of our team.	• SDG 3 • SDG 6 • SDG 7 • SDG 8 • SDG 12 • SDG 13 • SDG 17

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8. Annexures

Annexure 1: List of prioritized SDGs, Targets & Indicators

SDG No.	SDG	Target No.	Indicator No.
SDG 3	Ensure healthy lives and promote well-being for all at all ages	3.4	3.4.1
		3.6	3.6.1
		3.8	3.8.2
		3.9	3.9.1
			3.9.2
			3.9.3
		3.D	3.D.1
SDG 6	Ensure availability and sustainable management of water and sanitation for all	6.1	6.1.1
		6.2	6.2.1
		6.3	6.3.1
			6.3.2
		6.4	6.4.1
			6.4.2
		6.5	6.5.1
			6.5.2
		6.6	6.6.1
		6.B	6.B.1
SDG 7	Ensure access to affordable, reliable, sustainable and modern energy for all	7.1	7.1.1
			7.1.2
		7.2	7.2.1
		7.3	7.3.1

SDG No.	SDG	Target No.	Indicator No.
SDG 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	8.1	8.1.1
		8.2	8.2.1
		8.3	8.3.1
		8.4	8.4.1
			8.4.2
		8.5	8.5.1
		8.8	8.8.1
			8.8.2
SDG 12	Ensure sustainable consumption and production patterns	12.2	12.2.1
			12.2.2
		12.4	12.4.1
			12.4.2
		12.5	12.5.1
		12.6	12.6.1
		12.8	12.8.1
SDG 13	Take urgent action to combat climate change and its impacts	13.2	13.2.1
		13.3	13.3.1
			13.3.2
SDG 17	Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	17.8	17.8.1
		17.9	17.9.1
		17.13	17.13.1
		17.14	17.14.1
		17.15	17.15.1
		17.16	17.16.1

Annexure 2: List of Mahindra Sanyo Special Steel Pvt. Ltd. Aspect Members:

Aspect	Mentor	Leader	Co-Leader	Members
Employee Engagement	Mr. Avinash Somvanshi	Mr. Niranjan Purandare	Ms. Monika Singh	Mr. Avinash Salunke, Mr. Pravin Deshmukh, Mr. Prakash Bane, Mr. Saurav Mulekar
CSR	Mr. Avinash Somvanshi	Mr. Niranjan Purandare	Mr. Vikas Ganvir	Ms. Ipshita Rawat, Mr. Pramod Ingle, Mr. Tanaji Pathare, Dr. Anil Gaikwad, Mr. Prasad Giri, Mr. Narendra Meghwal
Energy & Carbon Management	Mr. Dilip Pachpande, Mr. Shreerang Patil, Mr. Shivaji Bhapkar, Mr. Ryan Pinto, Mr. Vipin Jain, Mr. Indrajit Mukherjee	Mr. Satyajeet Kumar	Mr. Makarand Chikate, Mr. Prasad Giri	Mr. Dipik Patil, Mr. Sudhanshu Tambe, Mr. Manoj Hatankar, Mr. Pradeep Honkalas, Mr. Indrakumar Kumhar, Mr. Vijay Gurav, Mr. BH Patil, Mr. Sachin Meshram, Mr. Harshal Puranik, Mr. Nitin Mahale, Mr. Deepak Panda
Green Building	Mr. Shivaji Bhapkar	Mr. Sumit Randive	Mr. Prasad Giri	Mr. Vijay Kapadi, Mr. Satyajeet Kumar, Mr. Vijay Kadam, Mr. Rajib Basu, Mr. Vinod Nikam, Mr. Jayesh Mhatre, Mr. Hanumant Chavan, Mr. Ramesh Solanki
Materiality Assessment & Stakeholder Engagement	Mr. Niranjan Purandare	Mr. Pramod Ingle	Ms. Ipshita Rawat	Mr. Milind Bhavsar, Mr. R Gokavi, Mr. V S Ananthan, Mr. Avinash Salunke, Mr. Milind Vyas, Mr. Jitendra Mahajan, Mr. Sandesh Sonawane, Mr. Pradeep Salian, Mr. Vikas Ganvir, Mr. Amit Dalvi, Mr. Hanumant Parse, Mr. Prasad Giri
Pollution Prevention	Mr. Avinash Somvanshi	Mr. Hanumant Chavan	Mr. Arjun Nanaware	Mr. S.B. Bhapkar, Mr. Deepak Patil, Mr. Manoj Hatankar, Mr. Vijay Prabhune, Mr. Tejas Thandar, Mr. Prabhakar Gawade, Mr. Rajib Basu, Mr. Jayprakash Tiwari, Mr. Basaprabhu, Mr. Sushil Dhake, Mr. Sandeep Shiral, Mr. Ravi Kamble, Mr. V.D.Jadhav, Mr. Sada Patil, Mr. Santosh Thorve, Mr. N. Somane, Mr. P.V. Battewar, Mr. Ramesh Solanki, Mr. R.K. Jain
Resource Intensity	Mr. Rajashekhar Gokavi	Mr. Uma Kanta Padhee	Mr. Vijay Prabhune	Mr. Sudhanshu Tambe, Mr. Jitendra Mahajan, Mr. Tushar Gadgil, Mr. Sadanand Khaire, Mr. Ramachandra Kole, Mr. Suresh Gopinath, Mr. Vijay Gurav, Mr. Rahul Katkar, Mr. Ravi Dafal, Mr. Vipin Vaiude, Mr. Maheswar Mahapatra, Mr. Rahul Bohir
Waste Management	Mr. Tejas Thandar	Mr. M.M. Hatankar	Mr. V.M. Prabhune	Mr. Pravin Rajkor, Mr. Sandip Jadhav, Mr. Ajay Khengat, Mr. B.H. Patil, Mr. Basa Prabhu, Mr. Vinod Nikam, Mr. Appa Jadhav
Safety Standard Improvement	Mr. Avinash Somvanshi	Mr. Hanumant Chavan	Mr. Arjun Nanaware	Mr. Shailesh Tharkude, Dr. Anil Gaikwad, Mr. Tejas Thander, Mr. S. B. Patil, Mr. Chandrakant Sonawane, Mr. Ryan Pinto, Mr. Sunil Jha, Mr. Prakash Gaikwad, Mr. Sourabh Chakrbourty, Mr. Vipin Jain, Mr. Rajib Basu, Mr. J. V. Bharkale, Mr. B. H. Patil, Mr. Sandeep Patil, Mr. Sushil Dahake, Mr. Sagar Patil, Mr. Anup Salvi, Mr. B. I. Wasedar, Mr Mohansingh Chamiyal, Mr. Vijay Kadam, Mr Mahesh Thakur, Mr Usuf Maldar, Mr. Ravi Kamble, Mr. Vilas Ghosalkar, Mr. J R Tawade, Mr. V.D. Jadhav, Mr. Sada Patil, Mr. Santosh Thorave, Mr. Narendra Somane, Mr. P.V. Battewar, Mr Ramesh Solanki, Mr Ramesh Khanvilkar, Mr. Nana Salunke, Mr R. K. Jain
Water	Mr. S. Chakrabarti	Mr. P. N. Gawade	Mr. P. B. Jadhav	Mr. S. R. Jadhav, Mr. D. M. Patil, Mr. J. D. Patil, Mr. M. Y. Joshi, Mr. K. Saktivel, Mr. J. K. Mhatre, Mr. P. N. Deshmukh, Mr. H. R. Hegade, Mr. R. G. Solanki

Reporting

Mahindra Sanyo Special Steel Pvt. Ltd.	**SustainPlus**
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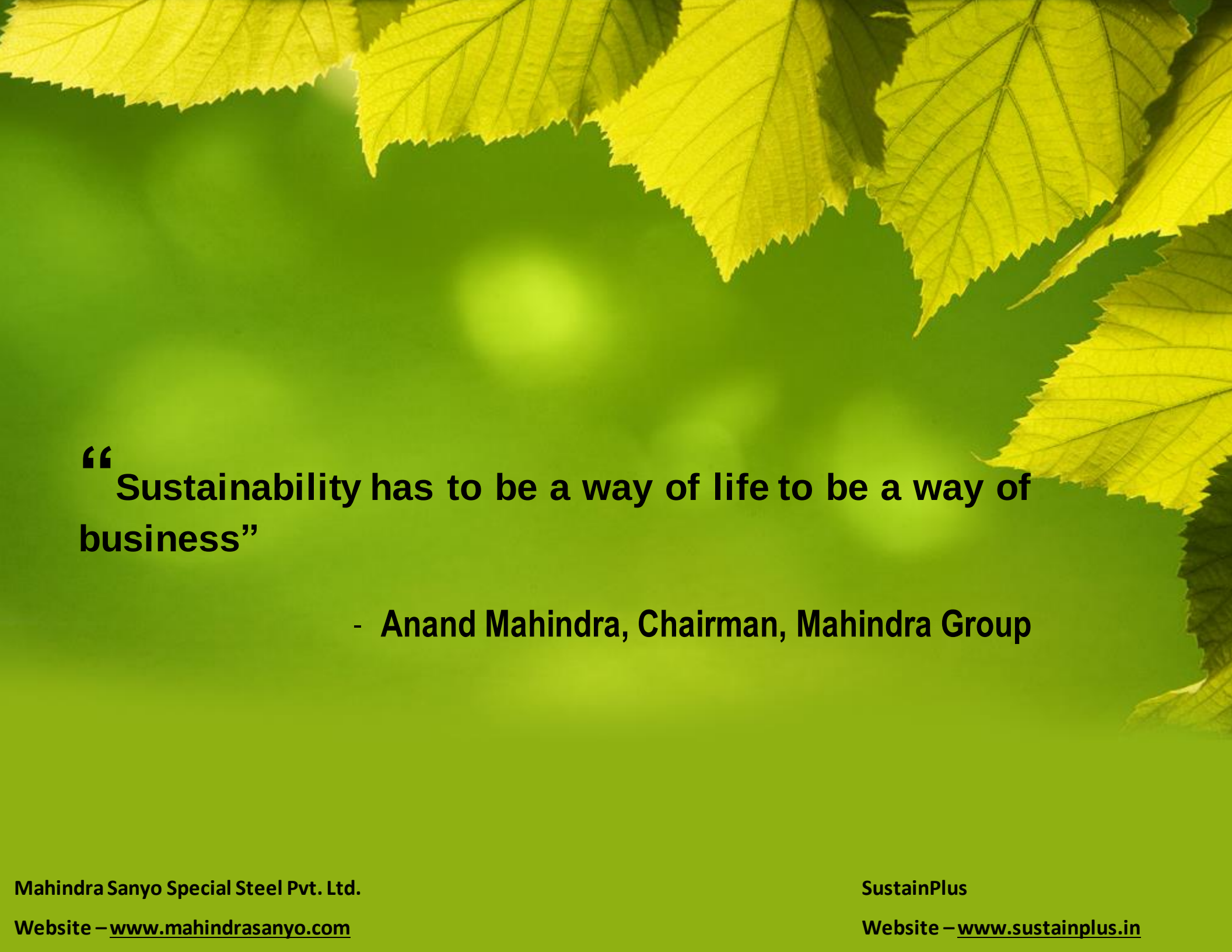
Champions


“Sustainability has to be a way of life to be a way of business”
- Anand Mahindra, Chairman, Mahindra Group