SCALING UP SUSTAINABLE DEVELOPMENT OF MSME CLUSTERS IN INDIA: LEARNING DOCUMENT
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Executive summary and conclusions

About the project
The foundry sector in India is an environmentally challenging and highly energy intensive industry, with 5500 units in 47 clusters. 90% of India’s foundry units are micro, small and medium enterprises (MSMEs) that mostly use outdated and inefficient melting technologies in their production processes. Although several initiatives have attempted to address these issues, none have been able to reach more than 200 units.

The project “Scaling Up Sustainable Development of MSME Clusters in India” was set up to address this. Run over 4 years, the project aimed to enhance the competitiveness of less sustainable MSME clusters and help them identify and reduce their environmental, social and economic impacts.

The project was led by the Foundation for MSME Clusters and run with five partners: the Foundation for MSME Clusters’ (FMC), the Indian Institute of Corporate Affairs (IICA), the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the United Nations Industrial Development Organization (UNIDO), and the Global Reporting Initiative (GRI). It was funded by SWITCH-Asia, a European Commission program to support Asian companies in their sustainability performance.

This learning document aims to present the learning experience of the clusters receiving the training and coaching support, highlighting the experiences and feedback that GRI received. This document captures the feedback that came from the various parties involved during the process, ensuring the inclusion of different perspectives.

GRI’s role and the Aggregated Reporting (AR) Methodology
Initially it was planned to train 100 SMEs from three regions but later it was decided to concentrate on Punjab and Rajasthan. The ultimate goal of the support was to produce Aggregate Sustainability Reports for the foundry units in each cluster. GRI worked with the support of one of its local Certified Training Partners and other independent consultants and technical experts to train and coach the participating foundry units, through:

- Sensitization workshops
- Training workshops (minimum 16 hours, conducted over two to three days)
- Coaching workshops (a series of four workshops held in the evening to encourage participation)
- Meetings with technical experts to receive advice on performance on key material Aspects

As one of the project deliverables, GRI developed an Aggregate Reporting (AR) Methodology for the foundry units. Based on the GRI Sustainability Reporting Standards, the methodology was specifically designed for use of the foundry units for the project. It contains data collection templates, providing the foundry units with additional guidance on how to gather the relevant information, and guiding the Business Membership Organizations (BMOs) on how to put that information together in an aggregate sustainability report.

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1 Business Membership Organizations (BMOs) in this context refers to industry associations and chambers of commerce.
The AR Methodology is supported by training and coaching workshops, taking the participants through each of the five phases of the GRI Sustainability Reporting Process and resulting in an aggregated report developed through the combined efforts of the MSMEs within a specific cluster.

**Training and coaching: conclusions**

The training, coaching and support from technical experts was divided into three areas: sensitizing workshops and training courses; coaching workshops; and technical support.

**Training courses**

Three GRI Certified Training Courses were offered in 2014. In total, 77 representatives from foundry units were trained in Rajasthan and Punjab (16 in Ajmer, 32 in Jalandhar and 28 in Phagwara).

The GRI Certified Training Courses were conducted by the Certified Training Partner CII-ITC Centre of Excellence for Sustainable Development. The training developed for the foundry units was based on GRI’s Certified Standard Course based on the G4 Guidelines and included additional local learning examples and material on the custom-developed AR Methodology. The 16-hour course helped participants understand and learn how to coordinate the GRI Sustainability Reporting Process and apply the GRI Standards.

Feedback from the participants and trainers resulted in the following learning points:

- **Training and related materials should be delivered in simple, local language.**
  MSMEs in the foundry industry are not familiar with sustainability, CSR or associated concepts and explaining the complex concepts and content in simple terms ensured that participants gained the maximum benefits from the project.

- **English is the preferred language for the training material. Hindi was used for verbal communication.**
  Based on identified requirements, the course and related materials were initially translated into Hindi but participants of the first course confirmed that English would be preferable for the training material. All the communication and interaction with participants during the training and coaching support was done in a mix of simple English and Hindi to ensure understanding.

- **Handouts and case studies support learning.**
  The foundry units requested more printed handouts and case studies, so they could follow the course content and refer back to the information, and have practical examples of how other MSMEs have approached sustainability reporting. Also relevant examples and case studies increased the foundry units’ understanding on sustainability.
• **MSMEs cannot allocate significant resources to the training activities, so the training schedule should be flexible to meet their needs.**
  Many of the foundry units are run by one person, so taking three days out of work to attend training is not feasible. The courses were shortened from 16 hours to 10-12 learning hours to accommodate this. This learning experience can be implemented in future relevant projects.

• **Training increased participants’ understanding of sustainability.**
  Sensitization workshops paved the way to introduce foundry units to the importance of sustainable development. Despite the challenges the small foundry units have had with sustainability and reporting, representatives came away from the sensitization workshops and the training with greater knowledge and understanding of their sustainability context and the importance of reporting. Additionally, training the Cluster Development Agents (CDAs) and BMOs was important to build up their understanding so that they could motivate foundry units to participate in the project.

• **The trainers offering the courses should have sector specific experience in their background.**
  Additional experience working with the respective sector would be useful to make the business case for sustainability reporting to participating organizations.

• **The report coordination team should be comprised of implementing agency representatives, trainers and technical experts.**
  As originally planned for this project, a collaboration between the different partners is necessary to ensure a successful outcome in the reporting process.

**Coaching workshops**

Four coaching workshops were held on the five different phases of the GRI Sustainability Reporting Process: Prepare, Connect, Define, and Monitor and Report. At the end of the four coaching workshops, 6 out of the 16 trained foundry units in Ajmer and 20 out of the overall 60 trained foundry units in Punjab provided the full data required for the aggregate reports.

Several administrative changes were made during the course of the workshops, taking ongoing feedback into account:

• Workshops were held in the evenings to encourage maximum attendance
• A local FMC coordinator co-facilitated the coaching workshops, bringing their expertise in the foundry sector to customize the coaching content
• Coaches discontinued the use of PowerPoint presentations and focused their efforts on making the workshops interactive

Feedback and observations, during the four coaching workshops, led to the following conclusions:

**Prepare**

• Participants were at this point familiar with the sustainability context and the reporting process, and identified some major challenges, including obsolete products and a lack of skilled workforce
• The foundry units understood that to survive in this market they had to increase their competitive advantage, and that sustainability efforts could pave the way

Connect
• At first, the foundry units treated the stakeholder engagement process as an additional burden
• During the stakeholder engagement exercise, it became evident that there was a communication gap between the foundry units and their stakeholders
• In most cases the key stakeholders had limited knowledge on sustainability issues and the context of this project; in future they should be included in the training
• Finally, the foundry units recognized the value of the stakeholder engagement exercise and agreed to work on establishing mechanisms for constant dialogue with the stakeholders

Define
• The long-term potential benefits related to data collection were seen as a good motivation to set up good systems for management and reporting
• One benefit already gained by the foundry units was related to increasing the energy efficiency of the furnaces that are used in their production process

Monitor and Report
• In many cases, the availability of data for the purpose of aggregate reporting was a challenge
• Data collection appeared to concern the foundry units
• A lack of consistent data collection and other challenges meant setting SMART goals was a challenging task
• A concern was raised that there will be no ongoing effort in the monitoring phase in the future unless changes are implemented throughout the foundries Market research should be considered in future projects for the foundry units, to help them understand and meet demand related to their products.
Introduction

The Indian economy owes a major proportion of its growth to the 26 million Micro, Small and Medium Enterprises (MSMEs) that provide employment to an estimated 60 million people. 70% of these MSMEs are estimated to be concentrated in around 1100 industrial and 3500 artisanal clusters. A sector mapping conducted in 2010 on the status of industrial clusters identified the foundry sector in India (with 5500 units in 47 clusters) as an environmentally challenging and highly energy intensive industry. 90% of India’s foundry enterprises are micro and small enterprises that use outdated and inefficient melting technologies in their production processes. Several initiatives have taken measures to address the widely recognized problems in the foundry sector, but have been unable to reach out to more than 200 enterprises.

The project “Scaling Up Sustainable Development of MSME Clusters in India” was set up to address this. Run over 4 years, the project was led by the Foundation for MSME Clusters and funded by SWITCH-Asia, a European Commission program to support Asian companies in their sustainability performance.

Scaling Up Sustainable Development of MSME Clusters In India: Aim and project partners

The project “Scaling up Sustainable Development of MSME Clusters in India” was established to enhance the competitiveness of less sustainable MSME clusters and help them identify and reduce their environmental, social and economic impacts. The overall goal of the activities conducted as part of this project was to reach out to a target group of 500 MSMEs, as direct beneficiaries, and to have an impact on 460 MSMEs, as indirect beneficiaries, in the target clusters of Batala, Jalandhar, Jaipur and Howrah. Through these beneficiaries, the project had an indirect impact on approximately 10,000 contractual and permanent employees, with a minimum of 2000 employees directly affected in the target clusters. Overall, local BMOs, Business Development Service Providers (BDSPs), fabricators, local public authorities, banks and financial institutions, and national governmental institutions providing technical support and public funding in the four target clusters have been involved in this four-year project.

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3 The SWITCH-Asia programme | SWITCH-Asia project Scaling up Sustainable Development of MSME Clusters in India, http://www.switch-asia.eu/programme/
Five partners collaborated to achieve these goals: the Foundation for MSME Clusters’ (FMC), the Indian Institute of Corporate Affairs (IICA), the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the United Nations Industrial Development Organization (UNIDO), and GRI (Global Reporting Initiative). The partners were tasked with achieving a variety of complimentary deliverables with the overall goal to support the foundry sector in its efforts to manage significant sustainability impacts and develop more sustainably in the four target clusters.

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7 Scaling up Sustainable Development of MSME Clusters in India | FMC website http://fmc.org.in/wp-content/uploads/2012/10/About-EU-Project.pdf
GRI’s role

For the purposes of this project, GRI, with the support of one of its local Training Partners and other independent consultants and technical experts, aimed to train and coach up to 100 MSMEs in the foundry sector based in Rajasthan, Punjab and West Bengal. At the end, the MSMEs from Rajasthan around the Ajmer area and Punjab around the Ludhiana and Jalandhar area participated in the training and coaching activities.

In the context of this project, the final outcome was an aggregate report, i.e. the result of applying the process of the Aggregate Reporting (AR) Methodology to combine data from individual foundry units that belong in the same cluster (i.e. region) in order to create one collective sustainability report that represents the foundry units.8

The first step towards sensitization was to run short workshops for people in direct contact with the foundry units for the purposes of this project. GRI worked closely with the lead partner (FMC) and sensitized the FMC coordinators and local Cluster Development Agents (CDAs) on the sustainability context and reporting process. Because of this, the main partners for the training and coaching activities had already established a good understanding of the main subject of training and were in a better position to motivate the foundry owners to attend the sensitization workshops and training courses.

The foundry units then attended a series of sensitization workshops, to gain awareness of the broader sustainability context and to understand the process of sustainability reporting based on the GRI Standards. The aim of the workshops was to get commitment from the foundry units to participate in the training and coaching, and ultimately contribute to an aggregate report based on the GRI Standards. A number of the foundry units that attended the sensitization workshops subsequently attended the GRI Certified Training Course that was customized for the intricate context of the Indian foundry sector. Several foundry units in the target locations who participated in the training program, attended the coaching workshops that took the participants through the GRI sustainability reporting process, including GRI’s five phases of reporting – Prepare, Connect, Define, Monitor and Report. The result of the sensitization workshops, training and coaching was the development of two aggregate sustainability reports: one for Rajasthan, covering the foundry units that were based around Ajmer, and one for Punjab, covering the foundries based both around Ludhiana and Jalandhar.

To ensure that the foundry units were able to understand the sustainability context and the connection of reporting to sustainable development, the concepts were explained in simplified language. This was done in the training material for both the sensitization workshops and the GRI Certified Training courses by simplifying the language and the concepts presented. The facilitators of the courses and workshops used a mix of English and the local language to ensure that learning was not lost because of a language barrier.

The next challenge was to make sure that the GRI Standards could be used for the aggregate report for the foundry units without the technical documents being an intimidating factor. An Aggregate

8 In this document, MSMEs that participated in this project will be referred to as foundry units.
Reporting (AR) Methodology based on the GRI Standards was developed specifically for the foundry units in this project. The development of the AR Methodology involved examining each of the General Standard Disclosures in the GRI Standards and deciding how each could be addressed, for the purposes of the Aggregate Reports, by a group of independent foundry units that belonged to the same cluster.  

**AR Methodology development**

GRI has pioneered sustainability reporting since the late 1990s, transforming it from a niche practice into one now adopted by a growing majority of organizations worldwide. The GRI Standards for Sustainability Reporting are the most trusted and widely used in the world.

GRI’s approach is based on multi-stakeholder engagement. Bringing together the needs of all report preparers and users has enabled GRI to produce universally-applicable reporting guidance that meets the needs of all types of organizations, large and small, across the world. All elements of the GRI Standards are created and improved using a consensus-seeking approach, and considering the widest possible range of stakeholder interests which includes business, civil society, labor, accounting, investors, academics, governments and sustainability reporting practitioners.

The Aggregate Reporting (AR) Methodology was designed as part of the SWITCH Asia India project “Scaling up Sustainable Development of MSME Clusters in India,” taking into account the specific circumstances of participating foundry units. The foundry units had no prior experience in reporting. Therefore the most appropriate aggregate reporting option for them was to apply the Core ‘In accordance’ criteria as an initial step towards sustainability reporting.

The AR methodology was developed with the help of an independent sustainability consultant followed by feedback from the project partners and approved by GRI to ensure its alignment with the GRI Standards. The AR methodology was fully customized to the needs of the foundry sector in India and its relevant sustainability topics at the given time, therefore it cannot be replicated as is in a different context or project. The aggregate reports developed in this project can be a reference point for other foundry sectors in India who want to start an aggregate reporting process.

The Aggregate Reporting methodology is based on GRI’s Sustainability Reporting Process. In simple terms it is a step-by-step process that can help a cluster of foundry units identify the most significant economic, environmental and social impacts of their activities, be aware of the risks associated with their activities, measure their impacts and find a way to manage, improve and ultimately report on those impacts. For convenience, this reporting process is divided into five phases: prepare, connect, define, monitor and report. The process is covered in detail in the next section.

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10 GRI G4 Guidelines: Reporting Principles and Standard Disclosures, p. 12

11 The Aggregate Sustainability Report for Ajmer can be found on GRI’s Sustainability Disclosure Database- http://database.globalreporting.org/reports/view/35252
The Aggregate Sustainability Report for Punjab, can also be found.- http://database.globalreporting.org/reports/view/35253
An aggregate report is the outcome of an aggregate reporting process.

An aggregate sustainability report is defined as the aggregation of information on the economic, environmental and social impacts caused by the activities of a group of firms in the same business. Such aggregation is suitable for similar units within a small geographical boundary that use similar manufacturing processes, manufacture similar products or both. While a cluster may constitute a group of interrelated firms that include manufacturing units, suppliers of input materials and technology, for an aggregate report, the group must constitute firms making similar products using similar technologies.

It is very important to distinguish between the aggregate reporting process and an aggregate report, which is the outcome of the process. The aim of the Switch Asia project is to take foundry cluster units through the process of aggregate reporting to identify the sustainability issues that are relevant to their business, to measure and monitor related performance, plan actions and set targets for improving performance and disclose their performance.

The value of aggregate reporting for MSME clusters

A lot of research and documentation covers the effectiveness of clusters in achieving economies of scale, improving competitiveness, fostering innovation, improving quality and enhancing access to markets. By sharing common technologies, knowledge, inputs and cluster-specific institutions, industries within a cluster benefit from complementarities.12,13

Aggregate reporting makes use of the cluster approach to improve economic, environmental and social performance of enterprises that may otherwise be difficult for the individual organizations.

MSMEs, in this case foundry units, cannot directly see the value of sustainability reporting before they actually start going through the process. GRI’s experience of working with small organizations is that when the organizations go through this process, they start realizing cost reductions and other benefits in the first few reporting years. For organizations that have limited capacity and resources, aggregate reporting can be an easier introduction to sustainability reporting.

The AR process involves the identification of significant impacts, setting an action plan to manage these impacts and transparently report on them. Through this process the foundry units can put in place internal systems for critical everyday activities such as melting and molding, labor management and material flow and have a complete overview of usage of important raw materials and finances. In general this leads to smoother operations, leaving more time for strategic priorities. This can result in a sizable reduction in consumption of raw material, energy use and generation of waste. Improved health and safety and a better work environment boost the morale of the workers and reduce absenteeism.

Preparation of an aggregate sustainability report demonstrates commitment to sustainable production and consumption of input materials such as sand, scrap, pig iron and coke. This could have an effect on attracting more business for the participating foundry units as they could earn the status of preferred supplier of castings as well as improve relations with the regulatory authorities.

13 UNIDO, 2010, Business, Investment and Technology Services Branch - TECHNICAL PAPER SERIES, Cluster Development for pro-poor growth: the UNIDO approach
Sustainability reporting also improves the ability of the participants to attract markets that are willing to do business with environmentally and socially responsible companies. By disclosing information on their impacts and performance, the foundry units can demonstrate that they are a group of responsible MSMEs that manage the impacts of their activities and operations.

The foundry units are MSMEs, micro, small and medium enterprises, whose individual impacts may not seem important, but because of the presence of a large number of units in the cluster, the overall local impact becomes significant. Since the units face similar sustainability challenges, they can work together to find common solutions, share best practices, consider common facilities, improve their economic, environmental and social performance and report on their performance economically, all with minimum resources.

The AR Methodology includes relevant data collection templates specific to the foundry units, providing additional guidance to the foundry units on how to gather information, and for the BBMOs on how to put the gathered information together in the aggregate report. It also gives the BMOs and CDAs clarity on how sustainability reporting is linked to the foundry units. This AR Methodology should therefore be considered as a method/tool developed for the foundry units in India involved in this project to do an aggregate report, rather than as a GRI approved generic method/tool for putting together an aggregate report.

The support provided by GRI under this methodology was divided into two parts: 1) Training and 2) Coaching.

1) Training – The GRI Certified Training Course was conducted by CII-ITC Centre of Excellence for Sustainable Development (CESD), GRI Certified Training Partner in India. The training took the participants through the five phases of the GRI reporting process and introduced the GRI Standards and how to apply them. The AR Methodology was also introduced during the training.

2) Coaching – To ensure the foundry units had adequate knowledge of the implementation of the activities under each reporting phase, four coaching sessions were provided by GRI’s Certified Training Partner, CII-ITC CESD following the training activities. In these sessions the foundry units were guided through each of the five GRI reporting phases and the activities involved in each phase in more detail; some activities were done at an individual level and some at a cluster level. Even though the aim of the project was to raise awareness and train foundry units in order to finalize aggregate reports in their clusters, it was seen as important to provide them with knowledge about the individual role of the foundry units for their own sustainability reporting processes in the future.

Below is an overview of the GRI Reporting Process, showing where the AR Methodology fits in. The GRI Reporting process is divided into the following five phases:

**Prepare** – Gives an overview of what the final report might contain, the process to get there and ways the organization can prepare to go through the reporting process. This was covered in detail during the first coaching session for the foundry units. The Prepare phase was then executed by the foundry units together with the BMOs, at cluster level, for the purpose of aggregate reporting.

**Connect** – Shows how to identify and engage with the organization’s main internal and external stakeholders and discuss their concerns to help decide what to report on. This phase was covered during the second coaching session. The foundry units involved had similar stakeholders and therefore the
Connect phase was executed by the foundry units together with the BMOs, at cluster level, for the purpose of aggregate reporting.

**Define** – Helps define the report content based on stakeholder input and assessment against GRI’s reporting principles of defining content, helps ensure quality of the reported data, and guides an analysis of the organization’s current commitments and measurement capabilities. This step addresses any internal modifications that might be required to enable improvements, which is expected to be the focus of future reports. This phase was covered during the third coaching session. The Define phase was executed by the foundry units together with the BMOs, at cluster level, for the purpose of aggregate reporting.

**Monitor** – Describes how to collect the information needed for the organization to report on the indicators identified, and how to ensure overall data quality. This step also provides ideas on how to make data collection and analysis more efficient. This phase was covered during the fourth coaching session, and was executed by each of the units individually, to collect the information to be put together in the aggregate report. Even though the information was collected for the purpose of the aggregate report, it will be very useful for the individual foundry units for their internal management and future aggregate or individual sustainability reporting to continue moving towards sustainable development.

**Report** – Helps to understand the dynamics of choosing a particular format for the report, writing and finalizing it. This phase was also covered during the fourth coaching session. In this phase, the AR Methodology was used to aggregate the information collected by each of the foundry units involved into an aggregate report. This phase was executed by the relevant BMOs.

In addition to the training and coaching support, it was decided that technical experts with expertise on key material issues for the foundry sector would be involved to further support the foundry units. The work of the technical experts started after the data collection activities by the foundry units, to identify improvement areas related to their material Aspects. The participation of the foundry units in this additional support was based on the status of the data gathered by each foundry unit, as well as their willingness to participate in the process. The aim of this support was to assess the foundry units’ monitoring systems and to help them initiate procedures to build such systems in the future. The objective was to help build up technical knowledge on the improvement areas that foundry units need to work on to develop sustainably.

The topics identified for the technical support focused on a few key material Aspects for the foundry units, as identified during the AR methodology development and ratified through the aggregate reporting process: energy efficiency, occupational health and safety (OHS), waste management and labor law.

According to the AR Methodology, the following division of roles was made in supporting the foundry units through the aggregate reporting process:

1. **Individual enterprises/ Foundry Units:** To participate and contribute as required in the GRI sustainability reporting process (that is by identifying key stakeholders, identifying material aspects, providing raw data to CDAs and BMOs).

2. **BMOs/CDAs:** Ensure that the foundry units provide the necessary data in a reliable and timely manner, and put this data together so it is ready to be included in the final written report.

3. **GRI:** Ensure monitoring of usage of the AR Methodology and any necessary revisions, continue with the sensitization workshops and follow up with sign ups, provide relevant training and coaching material, select
and coach the Training Partner and ensure quality control of training and coaching activities.

4. **FMC**: Co-organize sensitization workshops with GRI, mobilize and sign up appropriate foundry units to participate throughout the project, and ensure commitment from related BMOs through the CDAs.

The implementation of the Aggregate methodology in practice also created learning experience:

- The existing level of trust and the contribution of local CDAs and BMOs to the reporting process positively contributed to the collection of information from foundry units, focusing on environmental and societal performance which were not a priority for them prior to the project.

- Another point for future projects was that the foundry units should not be supported only by the trainers in the reporting process but from a team of the various implementing agencies local BMOs, CDAs, trainers.

**Training the foundry units**

Under this project, three training courses (GRI Certified Training Courses based on GRI’s G4 Guidelines) were offered in 2014. In total, 77 representatives from foundry units were trained in Rajasthan and Punjab (16 in Ajmer, 32 in Jalandhar and 28 in Phagwara).

The GRI training courses offered under this project were conducted by one of GRI’s Certified Training Partners in India\(^4\) - CII-ITC Centre of Excellence for Sustainable Development.\(^5\) Participants had the opportunity to attend a tailor-made GRI Certified Training Course based on GRI's G4 Guidelines in order to understand and learn how to coordinate the GRI sustainability reporting process.

The training course developed for the foundry units was based on GRI’s Standard Course on the G4 Guidelines and included additional learning examples and material on the custom-developed AR Methodology. During the project planning it was assumed that the course would need to be translated into Hindi to respond better to the needs of the foundry units. The first certified course that was offered to foundry units based in Ajmer was conducted in Hindi, using training material translated into Hindi. In their feedback on the first course, GRI’s Certified Training Partner, participating foundry units and local FMC coordinators suggested that the English version of the material should be used for forthcoming trainings, because the AR Methodology was developed in English and the majority of the trainees were happy to attend the training in English. As a result, participating foundry units in Phagwara and Jalandhar attended the same course using the English course material, however, the interaction during the training was in a mix of English and Hindi to ensure understanding of the concepts.

Learning points from the training courses:

- Training and related materials should be delivered in English but the language could be further

\(^{14}\) GRI Certified Training Program | GRI Website [https://www.globalreporting.org/services/preparation/certified-training-partners/Pages/default.aspx](https://www.globalreporting.org/services/preparation/certified-training-partners/Pages/default.aspx)

\(^{15}\) CII-ITC Centre of Excellence for Sustainable Development | Website [http://www.sustainabledevelopment.in/](http://www.sustainabledevelopment.in/)
simplified

- As foundry units have limited prior experience with sustainability, sensitizations workshops and introductory trainings covering the sustainability context are essential.
- The delivery of the course could be in mixed English and local language.
- Handouts and case studies support learning.
- Foundry units cannot allocate significant resources to reporting, so the training schedule and the local content should be adapted to meet their needs: for this project the training was reduced to 10-12 learning hours.
- Trainers should have extensive experience from the foundry sector.
- As an outcome of the training course, the training increased participants’ understanding of Sustainability.

Ajmer

In total, 16 foundry units in Ajmer successfully attended the GRI Standard Course on 24-26 February 2014. The course was spread over three days.

With the support of the Certified Training Partner, feedback on the training course was collected. The feedback was collected via GRI’s Quality Control Evaluation Portal (QCEP). Overall, Ajmer foundry units that attended the training course were satisfied with the content of the training course and the trainer’s level of knowledge. More than 80% of the participants said the exercises of the course were relevant and helped them understand the content of the training better. 80% of the participants were positive that the content of the course was relevant to their work and all of the participants were confident that they would apply, at different levels, what they learned in the training to their work. Overall, participants tended to agree that the training delivered its learning objective and they gained knowledge on the GRI sustainability reporting process that they would need in subsequent steps.

However, the majority of participants in Ajmer considered the length of the training to be inappropriate for the specific needs of the foundry audience. The Training Partner also stated that the trainees considered the course to be too long. Individual feedback suggested limiting the duration to 10-12 hours of training.
In follow-up interviews after the training course was completed, the Training Partner representatives stated that the training in Ajmer was highly appreciated by the participants. **One of the first learning experiences referred to the administration of the course: the participating foundry units requested printed handouts of the training material so they could refer to it in the subsequent steps of the program.** This request was fulfilled in the training courses in Punjab. The trainers agreed that for this customized training the length of the course should be adjusted to 10-12 hours to accommodate the request and needs of the foundry units. It was also suggested that future trainings should be spread in two days, as it is difficult for the foundry unit owners to allocate resources (time and people) for three whole days.

**Punjab**

In Punjab, representatives from 32 foundry units in Jalandhar and 28 in Phagwara were trained on 24-25 April 2014 and 11-12 August 2014 respectively. The feedback that was received during the previous training in Ajmer was implemented so the training courses in the Punjab cluster were held using the English material and were limited to two days. They were also customized to fit the participants’ working hours and timings, and held during the evening. In addition, printed handouts of all the material were prepared and provided to the participants.

The feedback received Punjab participants showed that the participants considered the exercises in the training course helpful to understand the content of the training. Overall, they considered the course content relevant to their work, and the level of detail and depth in content appropriate for their needs. **More than 95% of the Punjab participants were positive they could apply what they learned in the training course directly to their work.**

A small portion of participants (less than 15%) stressed that the course was, again, too long for their needs. **Individual feedback also suggested that it would be useful to include more case studies from the foundry sector in the training course.** Individual feedback also focused on the trainer’s relevant expertise, as it was perceived that the trainer potentially did not have **extensive experience with the foundry sector.** For future projects with the foundry sector, it was suggested that the trainers have extensive experience supporting units from that sector or attend sector-specific training prior to the project implementation.

**The trainers’ perspective**

The trainers considered the trainings offered to the foundry units different to other courses they had conducted in the past. That was partly due to the audience as sustainability is a very new subject for the foundry units. The trainers agreed that the local examples and case studies included in the training material for this project helped them make a good case as to why companies should report on their sustainability performance. These case studies showed how small and medium enterprises can contribute to environmental issues such as pollution. An example of a case study that was included in the training material is included in the Appendix of this document.

According to the trainer, many of the foundry unit owners agreed that this is a time when they really have to make their businesses sustainable, otherwise future survival will not be possible. Another point that
impacted the foundry units was the importance of sustainability for their stakeholders. The majority of participants seemed to understand that when sustainability in business practices is a key topic for their buyers and customers, a non-sustainable operation might decrease their business with them. The trainer said that many of the foundries were big supporters of change and made the argument for sustainable change during the course to those who were not already convinced. Overall, from the trainers’ perspective, the training courses for this project were a mixed experience, with representatives who greatly supported changing within the sustainability context and those who really did not support it, as they were not convinced of the added value of the training. The first group of participants was already very motivated to start their first reporting cycle and the trainers expected them to get great benefits if they continue the reporting process and define sustainability strategies at an individual level.

The trainers also noticed that one particular challenge faced by the foundry units was that they do not have additional staff available to work with them on the reporting process unlike large organizations, where dedicated teams with colleagues from different departments work together to collect the information. In the majority of cases, there is one person running the foundry, having overall responsibility for the operation, from raw material supply to workforce management. Participation in this project is therefore a difficult task when combined with the work they have to complete on a daily basis.

A recurring experience from the training course was that participants were asking for similar case studies of sustainability reporting in the foundry sector. For the trainer, this underlines how important this project could be in terms of learning experiences; the two clusters that completed the training and coaching can be the first case studies, for other clusters in India that decide to move in a more sustainable direction.

In general, the trainers found the training courses to be more challenging compared to the average GRI Standard Course. Participants in regular GRI Certified Courses are usually aware of the general sustainability context and of the concept of corporate social responsibility. Participants tend to have a good understanding of what sustainability reporting is and how important it is for the growth of their organization. However, for this project the foundry units came with a very limited background on what sustainability reporting is, despite some foundry units attending sensitization workshops prior to the training. They also decided to learn more about sustainability reporting without the push from an employer or organization. With their limited prior knowledge on sustainability and sustainability reporting, the foundry units’ representatives all decided that this training is very important to them, despite the challenges.

The trainer identified some differences between the three training courses. The participants in Ajmer were more active during the course, showing more interest in and support for the activities. The Punjab cluster was in a position to benefit from the learning experience in Ajmer, as the trainers could share their experiences from the first training course. This boosted the confidence of the participants in the Punjab cluster, as they realized that they were not the first ones to go through the training course.

Some of the challenges that appeared during the training courses were related to the difference in the level of understanding of the participants. While some of the foundry units could immediately link the concept of sustainability reporting to their business operations others could not relate. Furthermore, the trainers had
to adapt to a more flexible training approach. For instance, during the first training, the trainers suggested that each of the foundry units develop and work with a sustainability reporting team, something quite unrealistic considering the size of the MSME foundry units. The trainers gained significant knowledge on how MSMEs work and how they could adjust the training to meet the needs of the foundry units, for example, by creating plans for the Prepare phase that could be completed by one or two people instead of a team.

The trainer was also in a position to identify immediate benefits that the foundry units got from the learning experience. For example, after understanding the impact that the operations had on the environment and how much they owe to their local community, the association in Ajmer initiated plantation efforts around their foundry units. This was their first, simple, realistic way to give back to the community and contribute towards sustainable development, while reducing their environmental impact. Another great benefit that materialized immediately after the training was the increase in participants’ understanding of sustainability. A few participants from both clusters were triggered by the training to conduct their own research on the topic, returning with more questions for the trainers.
Coaching workshops

Sustainability Reporting Process

Plan your reporting process (1st Coaching Workshop)

Finalize & distribute your sustainability report (4th coaching workshop)

Gather and analyze Information (4th coaching workshop)

Feedback from your key stakeholders (2nd workshop)

Define your report content (3rd coaching workshop)

In this project the foundry units attended four coaching workshops, each focusing on different phases of GRI’s recommended sustainability reporting process. The aim of the workshops was to guide participating foundry units through the activities of the reporting process for the purposes of the aggregate report and to provide them with adequate information and support to be able to report independently in their future reporting cycles.

At the end of the four coaching workshops, 6 foundry units in Ajmer and 20 foundry units in Punjab provided the full data required for the aggregate reports.

After each workshop, the Certified Training Partner and GRI collected and discussed feedback, which helped optimize the coaching process. Overall feedback can be summarized in two categories: feedback related to administrative issues and content-related issues.
Several adjustments were done in the coaching workshops to ensure better understanding among foundry units:

- **Each coaching workshop was planned to last 4-5 learning hours** (less than the standard eight hours of a coaching workshop in similar projects). In this way, the workshop could accommodate the busy schedules of the foundry unit representatives. Additional conference calls and meetings were planned with the Certified Training Partner and local FMC coordinators to cover any questions from the foundry unit representatives and facilitate data collection.

- **An FMC local coordinator helped co-facilitate certain coaching workshops** to help customize the coaching content to the specific needs of the foundry sector.

- **The coaches discontinued the use of PowerPoint presentations that were considered to be distracting. Instead, the coaches focused their efforts on offering interactive workshops**, using only handouts, and increased the number of exercises in the coaching material to maximize the learning experience.

- A recurring challenge during all the coaching workshops was that the foundry units needed to be reminded frequently about the reporting process and the activities to be completed in each reporting phase. Foundry unit representatives stated that this repetition was helpful. A learning point here is that, depending on the sustainability awareness level of the participating foundries, **coaching follow-ups may be needed more often**.

## Prepare

<table>
<thead>
<tr>
<th>Prepare Phase: Activities</th>
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<tbody>
<tr>
<td>Identify the sustainability reporting team</td>
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<tr>
<td>Choose the type of sustainability report</td>
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<tr>
<td>Create awareness in the organizations and get commitments from management</td>
</tr>
<tr>
<td>Run the initial meetings</td>
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<tr>
<td>Identify an initial list of sustainability topics</td>
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<tr>
<td>Choose the Core 'In accordance' option</td>
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<tr>
<td>Define the planning process for deciding on report content</td>
</tr>
<tr>
<td>Hold meetings with the staff to explain what is to be done during the reporting cycle</td>
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</table>

*Table 1: Overview of activities during Prepare phase*

During the Prepare coaching workshop, the foundry units were still in the early stages of building their knowledge of sustainability reporting. Having been introduced to the reporting cycle in the Certified Training Course, the Prepare coaching workshop helped them understand the breakdown of activities per reporting phase.
In both clusters, the foundry units were introduced both to the theory of the reporting process and to more practical parts through exercises. The purpose of these exercises was dual: to demonstrate how they can implement the activities in their businesses for an aggregate report and to understand how the reporting process and related activities normally occur in an independent reporting cycle.

A learning point from the first coaching workshops for the Ajmer and Punjab clusters was that a portion of the foundry unit representatives appeared to be more engaged and active than others. This portion consisted of foundry unit owners who were also the office bearers of BMOs. These foundry units could view the activities both from the reporter’s and the stakeholder’s perspective and were found to be more motivated. They also easily understood the importance of the activities in the Prepare Phase as for them it was evident that the preparatory work in the first workshop would lead structurally to the stakeholder engagement.

When looking at how to identify a list of important sustainability topics, the discussion orientated towards product feasibility and demand. This theme was recurring during the coaching support of this project. As the foundry units deepened their understanding of sustainability, they realized that they would need to adopt a more sustainable business model. In addition to identifying and working on their most major impacts, this meant that the foundry units should renovate their product, which was gradually becoming obsolete. Their biggest challenges appeared to be:

- Obsolete products
- Lack of skilled workforce
- Competition between the foundry units
- Lack of rules or regulations for labor in this sector that would benefit the workforce, therefore retaining workforce is a problem for the foundry units

In order to overcome these challenges, the foundry units understood that to survive in this market they had to increase their competitive advantage, and that sustainability efforts could pave the way. Furthermore, they understood that by assessing their internal situation, risks and opportunities, they could also identify and consider opportunities to develop new products. Despite the fact that data collection appeared to concern the foundry units during the Prepare phase, they understood the importance of maintaining a record of performance data.

**Connect**

<table>
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<th>Connect Phase: Activities</th>
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<tbody>
<tr>
<td>Identity stakeholders (recap and update from 1st workshop)</td>
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<tr>
<td>Prioritize stakeholders to be contacted</td>
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<tr>
<td>Define a list of what is to be asked from the key stakeholders</td>
</tr>
<tr>
<td>Consider how different stakeholders should be contacted</td>
</tr>
<tr>
<td>Plan the engagement process &amp; connect</td>
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</table>

*Table 2: Overview of activities during Connect phase*
During the Connect phase, the foundry units’ stakeholders were invited to the workshops for consultation. At first it was challenging to convince the foundry unit representatives about the value of connecting with their stakeholders and therefore in the beginning, the foundry units treated the stakeholder engagement process as an additional burden, as the responsibility to carry out the stakeholder engagement exercise lies mainly with the foundries and not the stakeholders.

During the design of this project, it was expected that the stakeholder engagement exercise would prove to be challenging for the foundry units, which were newly-introduced to sustainability reporting. Therefore, for both clusters, the participating foundry units co-identified and prioritized their key stakeholders with the support of CDAs and GRI’s Certified Training Partner. The Training Partner then worked with the foundry units during the workshops to identify the most material Aspects on which the stakeholders’ input and feedback was needed. A questionnaire was put together with key questions that the Training Partner would use in their interactions with stakeholders. Based on the nature of the relationship with the stakeholders as well as the fact that the stakeholder engagement was to collect feedback for the aggregate report, it was agreed that the most efficient way to conduct the stakeholder engagement would be through face-to-face meetings.

The Training Partner set up meetings and interacted with key stakeholders with the support of CDAs and other FMC coordinators in the respective locations. A full description of the process is available in the aggregate report from each cluster\(^\text{16}\). Finally, during the workshops, the Training Partner clarified the differences between sustainability reporting within the AR Methodology context and the individual reporting cycle, including the differences between the activities that need to be completed individually and the activities that needed to be completed during the Connect phase for the aggregate report.

During the workshops it was established that regular, structured stakeholder engagement was both important and necessary for the foundry units. As stakeholders are very important information providers for the foundry units, it became obvious to the foundries that systematic stakeholder engagement would need to occur. The foundry units noted that if they wanted to conduct business in an environmental friendly way, they would need to consult their stakeholders, who could provide information to support these efforts. However, it was apparent that there was a need to explain the role of stakeholder engagement in the sustainability reporting process. The trainer established with the participants that stakeholder engagement for reporting purposes is mostly about the concerns and interests of their stakeholders on sustainability issues. One of the main concerns at the end of the workshops was how the foundry units would conduct the stakeholder engagement exercise independently in future reporting cycles.

During the stakeholder engagement exercise, it became evident that there was a communication gap between the foundries and their stakeholders, in the sense that mechanisms were not in place to have a constant dialogue between the two parties. **The foundry units and their stakeholders agreed that, in the future, the gap between stakeholders and the foundry owners would need to be bridged through constant interaction.** At the end of the stakeholder engagement exercise, foundry units and their stakeholders were grateful that with their interaction they made small steps towards the right direction.

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\(^{16}\) The Aggregate Sustainability Report for Ajmer can be found on GRI’s Sustainability Disclosure Database- http://database.globalreporting.org/reports/view/35252. The Aggregate Sustainability Report for Punjab, can also be found in the Database: http://database.globalreporting.org/reports/view/35253
One challenge from the coaches’ perspective was that in most cases the key stakeholders had limited knowledge on sustainability issues and the context of this project. Therefore, for future projects, it was suggested that the key stakeholders should also be included in the training and coaching efforts. This would enable them to better understand the context of the exercises and broaden their knowledge and awareness on sustainability related issues.

At the end of the Connect phase, both foundries and stakeholders had increased their knowledge on the sustainability context. The foundries could list their key stakeholders, understand what made these stakeholders important to them and explain why the stakeholders should be consulted for sustainability reporting purposes. Both foundry units and stakeholders committed to continue engaging with each other.

The stakeholder engagement process posed a number of challenges. The intention was that the stakeholder engagement in the AR Methodology would be mediated to ease the workload of the foundry units in the reporting process. Therefore the Training Partner, FMC representatives and CDAs conducted the stakeholder engagement process. However, as the foundry owners were not directly present at the consultations, they were concerned that they did not fully experience the benefits of connecting with stakeholders. The Training Partner had suggested to include the foundry units for the purposes of the aggregated report, but instead the foundry units were involved through exercises on the identification and prioritization of stakeholders, contributing to ‘what and how to’ ask the key-questions to the stakeholders. Also, role-playing exercises were used to maximize the learning experience: the foundries were asked to think as their stakeholders and identify the most material Aspects. This exercise helped them think from the perspectives of their stakeholders and understand the importance of stakeholder engagement and receiving feedback on a regular basis.

### Define

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<thead>
<tr>
<th>Define Phase: Activities</th>
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<tbody>
<tr>
<td>Analyze stakeholders’ feedback</td>
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<tr>
<td>Define threshold</td>
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<tr>
<td>Select material topics</td>
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<tr>
<td>Relate the topics to GRI G4 Guidelines</td>
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<tr>
<td>Define Boundaries</td>
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<tr>
<td>Make recommendation to the management (when applicable)</td>
</tr>
<tr>
<td>Decide on the report content (with the management, when applicable)</td>
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*Table 3: Overview of activities during Define phase*
By the time they attended the Define workshop, foundry unit representatives in both clusters had begun to understand more about their material Aspects and the related data collection. They also seemed to understand more about the activities that took place in the Connect phase, such as identifying stakeholders and material Aspects. However, it was noted that several foundry unit representatives lacked the motivation to implement the activities they would have been conducting individually during an independent reporting cycle. This was a challenge identified for both clusters.

During the Define workshops a positive change of attitude towards engaging with stakeholders, both internal and external, was noted. Furthermore, by the third coaching workshop, the foundry unit representatives had become more accustomed to reporting terminology and were increasingly aware of their own sustainability issues. According to the coaches, in some cases, the theoretical concepts related to sustainability reporting were hard to reproduce; however, the foundry units were undoubtedly moving towards becoming more sustainable in practice.

Concerning the data collection efforts, the foundry units were quite apprehensive about the data collection process. Another challenge for the foundry units was related to the reliability of the data. In many cases, the foundry units did not have the right mechanisms in place to keep an archive of the data needed for the purposes of the reports. However, it was the coach’s impression that the long-term potential benefits related to data collection would be a good motivation for the foundry unit representatives to set up good systems for their future management and reporting.

During the Define phase, the foundry units started to recognize potential benefits that the reporting process could bring in their operations, provided they continue these practices in the future. The main benefits the foundry units recognized were the financial benefits of saving on raw materials, and the energy saving benefits of monitoring exactly how much energy they use and reducing their input costs. A benefit already gained by the foundry units was related to increasing the energy efficiency of the furnaces that are used in their production process.
Monitor and Report

**Monitor Phase: Activities**

- Check Internal Systems & Procedures
- Ensure quality of data (apply relevant principles)
- Assess internal systems & procedures and see what improvements need to be made and Implement!

**Report Phase: Activities**

- Choose best way to communicate about the report
- Finalize data reports (for this project)
- Prepare for the next independent cycle
- Review the finalized reports, based on the stakeholders’ feedback

*Table 4: Overview of activities during Monitor & Report phases*

In the last workshop that focused on the Monitor and Report phase, the foundry representatives received information and guidance on the last two steps of the reporting process. Because of the nature of the project and the ultimate goal of aggregate reports, the Training Partner informed the representatives of how they would need to assess their internal systems and implement monitoring and file-keeping mechanisms to establish good records of their business, also independently.

At this point, having already been involved in the data collection process quite actively, the representatives had a good understanding of the reporting process and the value that it could bring. It is important to note that the majority of foundry owners had no record keeping mechanisms in place; after the workshop
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ey understood the significance of monitoring their production levels and the demand of their product over time. They understood how good record keeping would not just enhance their sustainability efforts but also their business profitability and future vision and strategy. In particular, they recognized the value of having structured systems and mechanisms in place to monitor the data, customized to the nature and needs of their business. They were able to brainstorm in groups and consider, as a group, their SMART goals, vision and strategy for the coming years. They understood the importance of the exercise and were informed on how to do that individually and independently in the future.

The overall impression from the Training Partner was that after the Monitor and Report workshop, the foundry units could establish structured data collection and archiving systems. However, the biggest challenge at this point in the reporting process was related to setting SMART goals in practice. The Training Partner said that an independent goal setting exercise by each foundry unit would be extremely difficult and would require further support. This was related to the lack of consistent data collection and other challenges that the foundry units face because their product is common throughout the foundry units.

Because their products are the same, the foundries in a cluster sometimes compete with lower prices to secure orders. To be competitive, several of the foundry units reduced their pricing to below a cost-effective level, and orders came in frantically and sporadically – customers will go to the foundry that offers the lowest prices. The products of this sector are not stable, so any analysis related to the product and target setting is very difficult. For instance, the targets cannot easily estimate how much raw material they will need to use in the coming year, so any waste management reduction targets related to the use of raw material become almost impossible to set.

Furthermore, as there is no stable demand of the product and a lack of proper archives is apparent, the foundry units cannot estimate and set realistic goals with respect to reducing environmental impacts per quarter, for instance.

Another challenge identified during the Monitor and Report workshop referred to the notion of changing internal processes to collect data, measure and therefore manage impacts. A large proportion of the foundry unit representatives were intimidated by not being able to maintain a good record keeping system on a regular basis. Combined with the lack of any policy regulation that would make record keeping efforts mandatory, it led the coaches to believe that any monitoring efforts would be very challenging for the foundry units in the future. In addition, in most of the cases, monitoring efforts and data collection were happening in an analogue, paper-based archive. That meant there was no automated system to make data collection more reliable and less time-consuming. This resulted in a concern that there would be no ongoing effort in the monitoring phase in the future unless changes were implemented throughout the foundries.

However, by this point the foundry unit representatives had started to see how minimizing their impacts could benefit their business. In the first stages of the reporting process they might have been apprehensive regarding the report – their knowledge of sustainability was limited and therefore it was difficult for them to fully understand what the goal of the process would be about. At this point they saw the reporting process more realistically, as something that is both manageable and feasible.

At this stage of the project, it was clearer to the foundry units that the sustainability reporting process can be beneficial in the long-term. The foundry unit owners expected to
see more stable product demand as a result of their efforts. It was clear to them that these benefits would not be immediate but they expected that with organized efforts and market research, they could be more innovative with respect to their product, and that would increase product demand. They also realized as part of this process that the inputs they would receive from the technical experts would help them change their internal processes.

A huge learning point at the Monitor and Report stage was that market research should be done in future projects for the foundry units. Many foundry units had the direct goal to update their product and avoid becoming obsolete. In order to do that, several of them identified that they would need to first understand the needs of the market for the sector so that their production could meet the current and future demand trends. This had led many of the foundry unit representatives to seek support. Unfortunately, market research was not originally considered as one of key issues for the foundry units and such an exercise was not included in the scope of this project.

Technical experts on key material Aspects

The coaching support to the foundry units concluded with the field work of the technical experts. Their role was to meet with each of the foundry units towards the end of the reporting process and assess their status in relation to a few selected material Aspects to further work together with the foundry unit owners to suggest improvements and support them in their efforts to become more sustainable.

In early stages of the project – while developing the AR Methodology and before the sustainability reporting process was initiated – the project partners had decided the key areas of focus would be labor laws, Occupational Health & Safety (OHS), waste management and energy efficiency. The selection of these issues was ratified when the final list of GRI Aspects for each of the clusters was communicated and all of the issues were found to be material for the foundry units involved.

Overall, the meetings with the technical experts aimed to increase the technical knowledge of the foundry units on the key issues identified and help them build up a practical plan on how to progress on their sustainable development. Through the interaction with the technical experts, foundry units received practical advice aimed to increase their learning experience. The technical experts also identified best practices that some of the foundry units had in place to inspire the other foundry unit owners and encourage further improvement actions.

A team of experts that had technical knowledge on OHS, waste management and energy efficiency was selected to work with the foundry units in both the clusters, Ajmer and Punjab. In addition, an independent expert on labor law and cost accounting was also selected. The meetings with the experts were voluntary: all of the participating foundry units were invited to attend, based on their interest and availability.

Considering the learning experience from the interactions with the technical experts, a suggestion for future projects would be to involve technical experts from the beginning of the project, starting from the training course. In this way, any technical recommendations related to material Aspects could be integrated with the efforts of the foundry units as they move forward in the reporting process. This would not only help foundry units establish solid data collection systems but also improve ongoing procedures that would eventually help them manage their sustainability impacts.
Labor laws and cost accounting expert

The expert who was responsible for introducing the foundry units to labor law and cost accounting initiated their work in March 2015, in Ajmer. During the first meeting the expert interacted with members of AZLUS, the local Ajmer association and offered basic training on several aspects of labor law. One of the outcomes of the meeting was that the expert and the participants decided together that they would cover the Factories Act in a more detailed presentation, covering provisions relating to health, safety and welfare of workers. In addition, participants asked the expert to suggest a simple cost accounting system suitable for the foundry sector. The participants also asked the expert to for advice on how to maintain accurate cost accounting records and for instructions related to the application of service tax and excise law on foundries.

Taking into account the experience from the first meeting, a visit was organized for the Punjab cluster in July 2015. During this visit, the technical expert worked again with local association members and the foundry unit representatives to understand the status of the implementation of labor laws and cost accounting systems in the cluster. The objective was to identify gaps and improvement areas for future training purposes. The technical expert presented on brief historical aspects of labor laws and how these laws have evolved for establishing important social necessities such as health, safety and welfare of employees. Based on this introduction, participating foundry units responded with various reactions, ranging from considering that complying with labor laws can be beneficial for the business to considering compliance to be a constant nuisance. The technical expert however noted that the majority of foundry units have extensive experience in complying with labor laws. He also noted that employees younger in age and also with less -working experience could still benefit from basic training and orientation to Understand the basics of labor laws and how to achieve compliance. After discussing with all the

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17 The first training covered the Factories Act, ESIC Act, Employees Provident Fund and Miscellaneous Provisions Act, Gratuities Act and Payment of Bonus Act
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participants, several suggestions were made for potential next steps:

- **A checklist of major compliances required under each of the labor laws should be provided to foundry owners as part of their orientation to labor laws**
- **There should be an individual workshop on how to establish a cost accounting system**

**Occupational Health and Safety, waste management, energy efficiency**

The team of technical experts that worked with the foundry units on Occupational Health and Safety (OHS), waste management and energy efficiency visited both clusters in July 2015. The visits were focused on identifying the positive points of work within the sector and highlighting areas for improvement, making relevant suggestions wherever possible. It is important to highlight that both positive points and areas for improvement were quite similar for the units in both clusters.

As far as the positive feedback from the experts is concerned, the following points were identified as important improvement areas regarding OHS, waste management and energy efficiency and management:

- **The use of hand cart/trolley for shifting material from storage to charging could be improved. According to the expert this transportation should be maintained by ensuring regular inspection of the trolley for its healthiness and taking provision for staking of trolley in the working area.**
- **The distribution of personnel protective equipment such as helmets, goggles and shoes, and its use in some industries was another improvement area. The experts noted that the response on such protective equipment is poor from the workforce; however, regular guidance sessions with workers can encourage regular use.**
- **Foundry unit owners should enhance the use of magnetic separator in order to remove metal from all types of waste. This was recommended in order to save and reuse all metal scraps during the production process.**
- **The use of a wet scrubber was recommended as means to reduce parts per million (ppm) of exhaust gases. Also, it was recommended to use compressed air to ram the sand for the molds**
- **The scrap should be broken in small size pieces to reuse as charging material**
- **Equipment-wise, the use of screw based air compressors, overhead electric cranes for pouring of metal and electric trolley for charging cupola were recommended in order to increase energy efficiency**

On improvement areas and suggestions, the technical experts’ team had numerous technical suggestions to help the foundry units in both clusters improve their performance and manage their impacts with respect to OHS, waste management and energy management.

**For example, a learning point for foundry units is that their workflow can be optimized, especially when it comes to off-season periods; this effort should also be combined with establishing standard operating procedures for each of the foundry units. This would be a first step to reduce wastage and ensure functional operation. Furthermore, maintenance procedures should be in place, where they weren’t already, to avoid breakouts that affect productivity negatively.**

Another suggestion from the team of experts was related to emergency handling procedures and the costs they incur: **according to the experts, these costs would be reduced with proper training of the employees and emergency handling procedures in place.**

The improvement suggestions extended to record keeping and data capturing: **with simple record**
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keeping, the foundry unit owners can estimate how much waste is generated (and aim to reduce it), estimate the cost of production and see the cost of health checkups for their workforce.

Overall, the experts noted in several cases that waste collection should be improved and highlighted a few creative ways for disposal – for instance, disposed slag can be used in paver blocks.

Suggestions also included making improvements to the facilities by renovating the lighting and replacing current systems with LED lights, but also upgrading the ventilation in the work field to reduce the chance of occupation related diseases. The experts also advised to increase the use of daylight as much as possible, by using light pipers or transparent openings in the roof; this would lead to reduced energy costs, lower environmental impact and increased health benefits for the workers. The team of experts also highlighted that separate resting areas should be arranged, wherever they were not already present, with a hygienic atmosphere to reduce the inhalation of dusty or smoky air.

In addition to that, unique positive points in some of the foundry units were the following:

- Already part of the foundry units had implemented the practice of breaking down the scrap, to use as charging metal
- A foundry unit took the initiative to undergo occupational health and safety management systems (OHSAS) certification, an internationally applied standard for occupational health and safety management system specification. This means that the foundry unit had to work towards international standards, such as identification of list of hazards exiting in work area, determining risk level, preparing action plan to control the hazards, display of dos and don’ts, single point lesions, training of all employees on OHS issues.
- Other foundry units contributed to organizing health camps in order to monitor the health of employees and support OHS efforts
- Several foundry units had good practices in place such as hanging equipment/ tools for machining, using compressed air for ramming sand molds or using available technology to reduce the no-load losses of transformers to zero
- Focusing on energy efficiency, several foundry units had already translucent openings in shed the for daylight access and better ventilation

Overall, the technical experts’ work was appreciated by the foundry units as the experts both highlighted best practices put in place and improvement areas that foundry units could take advantage of, towards a more sustainable development.
Regional Roundtables

After the coaching workshops and the meetings with the technical experts, FMC, with support from project partners and local BMOs, organized two Regional Roundtables.

These Roundtables were mainly an opportunity for project partners to present on and discuss their various activities and outcomes. The events were organized with multiple objectives in mind. First of all, a primary objective would be to disseminate the learning experience gained from different activities under the project. In addition, participants could receive inputs from key stakeholders on the project methodology and seek out areas where the methodology of this project could be improved, for instance, understand why the common purchasing mechanism could not be sustained. Finally, part of the project focused on identifying the issues at the policy level which have an effect on the units. Consequently, another aim for these Roundtables was to collect policy recommendations, for the foundry sector, that could be provided to the government authorities.

Focusing on GRI’s activities, these roundtables were an opportunity to present the main learnings gained during the training and coaching support and to collect additional feedback and suggestions from participating foundry unit owners, BMOs, representatives from project partners and other stakeholders involved in the project.

Initially, three regional roundtable meetings were planned. As the training and coaching support was eventually offered to two main regions, Ajmer (Rajasthan) and Punjab, it was decided by the project partners to proceed with two Regional Roundtable events.

The two Regional Roundtables were scheduled to happen on the 31st of August 2015, for Ajmer, and on the 15th of December 2015, for Punjab. A summary of the main discussion and feedback points that took place during each of the events is provided in the two following sections.

Regional Roundtable in Ajmer, 31st August

The first Regional Roundtable and project dissemination workshop was organized in Ajmer by FMC in collaboration with the regional association, Ajmer Zila Laghu Udhyog Sangh (AZLUS).

As part of his presentation, the president of the association Mr. Pankaj Singhal, mentioned the benefits that the association identified through its participation to the project. AZLUS representatives were proud to be involved in the publication of the sector’s first sustainability report. The association also noticed that their involvement in training & coaching activities led to increased awareness on environmental and social issues. Furthermore, their work on the Aggregate Report improved relations with stakeholders and inspired an increased sense of environmental sustainability within the community. One of the areas that would need further development, within the foundry sector, according to the Association representative, would be to conduct market research for further product development and focus on marketing efforts.

A concrete learning point for the participating foundry units was understanding the advantages of reducing and managing waste from the production process. Mr. Pankaj Singhal mentioned that through the combined training and coaching support, the foundry owners understood the benefits of reducing and managing their waste.

During the roundtable discussions, it was highlighted that the workshops, training and coaching have
helped the foundry units to think in terms of sustainability. Through the training & coaching, participants were able to build up an understanding of the ‘measurement, management and change’ concept and start considering ways to integrate that to their operations. In addition to that, they realized that sustainability reporting could be used as a tool to measure each unit’s performance on Aspects which are important to the foundry sector- for instance with waste management.

An important learning point that was discussed was the extensive engagement that participating foundry units had with the local community. For instance, parallel to this project, participating foundry units and association representatives organized activities to contribute to the local communities, such as cleaning the periphery of their enterprises and initiating plantation efforts. During the roundtable it was mentioned that these activities helped improve the foundries’ relations with key stakeholders. Furthermore, foundry unit owners understood the relevance and value of stakeholder engagement. The dialogue that was initiated with their stakeholders, through this project, improved the relationship and created a platform where both parties can discuss and resolve issues, to bring a positive change and make the foundry sector more sustainable.

In addition to that their consistent sustainability efforts and a future planning to look into extensive market research could lead to financial benefits for the sector. With the additional support of the technical experts, foundry unit owners became aware of their environmental impacts and OHS issues. They have also understood the value of technology upgrade and product diversification and the potential benefits this could bring to their operations.

Focusing more on a future outlook, so far for this project, actions were taken only in terms of compliance. From that moment onwards unit owners aimed to move beyond compliance and take actions based on sustainability and sustainable development. Foundry units would be interested to make efforts to continue the sustainability reporting process.

**Regional Roundtable in Punjab, 15 December**

The second Regional Roundtable and project dissemination workshop was organized in Ludhiana, Punjab in December 2015.

**Aggregate Reporting methodology, training and coaching**

During the meeting, roundtable participants raised several feedback points, for instance, focusing on the difficulties that small foundry units face during the reporting cycle due to the small size of their companies. Participating stakeholders expressed that the aggregate reporting process could be more applicable for slightly larger foundry units/ that employ 100 or more employees or have multiple management layers within their infrastructure. However, other participants were also of the opinion that Aggregate Reporting is a possible solution for the smaller foundry units as it requires less time and effort than preparing a sustainability report for their individual units.

Participants also mentioned that contributing to the Aggregate Report and following the reporting process was resource and time-consuming; the limited time issue was particularly straining for the foundry units due to the micro-size of their operations.

Another point highlighted was related to the training and coaching support, as participants reiterated how the trainers and coaches should have extensive experience with more relevant examples for the foundry
units. According to participants, the trainer focused more on examples from larger scale industries during the training and coaching. Hence participants found it difficult to relate to small foundry units. It is worth noting however that relevant case studies from the foundry sector were not always there to find.

It was also suggested that the future focus of training material should be oriented towards audio-visual training material, due to the high percentage of illiteracy among foundry unit workers and employees.

During the meeting, another feedback point regarding the methodology was that there should be sector guidance for MSME foundries which can be used to prepare aggregate reports in the future. Participants also felt that the Aggregate Reporting Methodology and training material should be simplified even more to be understandable. They also suggested preparing and customizing a standard reporting template, for the small scale foundry units, as part of the project.

Finally, on the aggregate reports, it was mentioned that the language of reports is English while key stakeholders of foundry units (local community & employees) cannot read in this language. Therefore the reports would potentially need to be translated by the foundry units, an activity that could be costly for them.

**Data collection and technical experts**

Focusing more on data collection and monitoring, participants mentioned that systems currently in place are not sufficient to address the data collection needs for the sustainability reporting process. In particular for this project, a great portion of participants in Punjab saw data collection as a burden, due to the micro-size of their companies. However, during the Roundtable, it was mentioned that participants saw sustainability reporting as a tool that can be used to assess and reflect on the status of their organizations. Participants agreed that they see value in terms of improving the existing monitoring and data collection systems or, where there is no system in place, adopt better documentation practices from the start.

It was also mentioned that more technical sessions with experts should have been held focusing on best practices for casting. In the future, focus should include pattern making and sand-making sessions as these skills are vital to the quality of the end-products of casting.

Overall, it was apparent from the roundtable discussion that participants realized the value of sustainability reporting through this project and felt that there is a global recognition in preparing sustainability report which would benefit them. However, a key challenge for them remains the lack of time and resources to invest in following the sustainability reporting process as well as preparing the sustainability reports, independently.
Overall learning experience

One learning experience was that the foundry units were requesting advice and support on matters that only had an intermediate connection with their production. When the activities relating to the technical experts’ support were designed to focus on material Aspects that would immediately affect their production-related impacts. During the coaching support it became evident that the foundry units were also interested in receiving guidance on how to adjust their sector to the new needs of the market. For these purposes, they suggested that market research be included in the technical experts’ work, as it is in similar projects.

Another learning experience is related to the continuation of sustainability efforts. During this project the foundry units had the opportunity to learn how to proceed with an independent sustainability reporting cycle. After the work of technical experts was concluded, it was still the trainer’s concern that the foundry units would need additional motivation to continue their work on managing and improving their impacts. With this in mind, it is the trainers’ suggestion that in future projects, additional workshops should be planned to show the foundry units how to restart the reporting cycle activities independently. Further to that, the foundry units could be given more responsibility in the reporting process, by being present in stakeholder engagement or report writing sessions.

In the duration of this project, other project partners were also in the position to collect the different learning experiences that foundry units gained. For instance, related to the production process, it was noted that the cost of establishing eco-production systems could be reduced for the foundry units in the system, if more than 10 foundry units are involved. On the reporting process, it was also highlighted that in future projects, the local agencies should still play a leading role in data collection along with the foundry units, as there is a trust relationship between the two already.

Moving Forward

- The foundry sector is key to supplying various business sectors, such as automobile, metal & mining, electrical utilities, power, cement, and textile. Lately, governmental efforts have been focused on making policy to upscale manufacturing and support development of skills that are crucial to the manufacturing sector- the backbone of economic activity. The “Make in India” campaign reflects the government’s policy to promote manufacturing in India. As the demand in local manufacturing industry and its products increases, sustainability and transparency will only play a crucial role.

- Looking ahead, in order to ensure the continuation of sustainability efforts in the foundry sector, the overall learning experience from this project and the discussions during the regional roundtables can be summarized below in the form of recommendations to be discussed at a policy level:

- Foundry unit owners that participated in the project saw sustainability reporting as a tool that can be used to assess and reflect on the status of their operations. Participants agreed that they see value in terms of improving the existing monitoring and data collection systems or, where there is no system in place, adopt better documentation practices. For the foundry sector to be more competitive globally with regards to their impacts (especially on the environment), structured support on sensitization on sustainability context and sustainability reporting would be important.
• Aggregate Reporting is a possible solution for the smaller foundry units as it requires less time and effort than preparing a sustainability report for their individual units.

• Organizations should be encouraged to disclose more information on their supply chain management. Such an initiative would help larger organizations take the lead in sensitizing their supply chain on sustainability and requesting for sustainability information from their suppliers.

• In 2012, the Securities and Exchange Board of India (SEBI) had mandated a Business Responsibility Reporting (BRR) requirement for the top 100 listed entities based on market capitalization in their annual reports. The key principles of BRR include disclosing information on areas such as environment, social, governance, stakeholder’s relationships, etc. SEBI’s Board has now approved that the present applicability of BRR should be extended to involve the top 500 listed entities based on market capitalization as on March 31st of every year. SEBI Circular further states that listed entities submitting sustainability reports based on internationally accepted reporting frameworks would not need to prepare a separate report for BRR but only compile and map the BRR required information in their report. This initiative could be in the future extended to include smaller-sized organizations.

• Incentives from the government/financial sector could be established for the foundry units and other similar operations that adopt sustainable practices and energy efficient technology or initiate their sustainability reporting process.
APPENDIX
Case Study from GRI’s customized Training Material: Examples from public sources of how sustainability reporting promoted organizational change to address negative impacts.

Case Study

1. Ludhiana Foundry Cluster – Coke Saving Initiative

Name and Type of Organization

Ludhiana Foundry Cluster has more than 200 foundry units that operate on Cupola Furnaces. The average coke metal ratio (CMR) in the foundries is in the range of 1:3 to 1:6, which is low and inefficient. However, with proper operation of the furnace, a much higher CMR can be achieved, in the range of 1:7 to 1:9 depending on the type of coke. For an ash content of 28%, it is possible to get a CMR of 1:7 to 1:7.5. Therefore, under the Switch Asia project, an initiative was undertaken to improve the efficiency of the furnaces.

While the reporting process was not used to identify significant impacts, the process of measurement, management and change can be used to explain the organizational change that helped address the negative impact on climate change.

What was the (environmental/social) impact caused by the organization’s operations?
Climate change and inefficient use of coke.

How did the reporting process help to address this?
The process is explained in the context of measurement management and change.

Measurement:
In the foundries in Ludhiana, at the start of the initiative it was known that the cupola furnaces were not performing efficiently. A pre-intervention log sheet was filled in during the charging of the cupola furnace and the coke metal ratio (CMR) was recorded for the units that agreed to take part in the project. It was found that they had a low CMR – sometimes as low as 1:3.

Management
On an average, for most cupola furnaces it is possible to achieve a coke metal ration (CMR) of 1:7 or 1:7.5, i.e., melting about 7 kg of metal with 1 kg of coke. Therefore, it was clear that the cupola furnaces of the units were not performing efficiently.

A technical assessment of the individual furnaces was done by technical experts and recommendations were made to the unit owners. Recommendations included changing the size of the cupola and changing the size and the angle of the tuyer, which were considered better practices. In some cases the experts
suggested the owner upgrade the existing single blast cupola to divided blast. The modifications in the furnace required minor to moderate expenditure, which was incurred by the unit owners.

**Change:**
After changes were made to the furnace following the recommendations of the technical experts, post intervention log sheets were filled during charging. The CMR had increased to 1:5 to 1:7, – now the units are able to melt up to 7 kg of metal with 1 kg of coke. This represents change in consumption of same quantity of coke to melt more metal.

This leads to cost saving and also reduction in emission of GHGs into the atmosphere for every unit of production.

The below table 5 shows the results of the initiative of coke saving in 4 foundry units in Ludhiana.

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Management</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Interv CMR</td>
<td>Cupola Furnace Intervention</td>
<td>Post Interv CMR</td>
</tr>
<tr>
<td>Unit 1</td>
<td>1:5.08 (19.7%)</td>
<td>1:6.33 (15.8%)</td>
</tr>
<tr>
<td></td>
<td>Change in dimension to reduce size of Cupola, change in angle and size of tuyers, decrease in height of slag hole</td>
<td></td>
</tr>
<tr>
<td>Unit 2</td>
<td>1:3.57 (28%)</td>
<td>1:6.05 (16.5%)</td>
</tr>
<tr>
<td></td>
<td>Inc. in height of Cupola, change in dimension of blast pipe and tuyers, position of blowers</td>
<td></td>
</tr>
<tr>
<td>Unit 3</td>
<td>1:2.51 (39.8%)</td>
<td>1:5.33 (18.8%)</td>
</tr>
<tr>
<td></td>
<td>Switch from SBC to DBC (had earlier adopted DBC but it had problems so converted it to SBC)</td>
<td></td>
</tr>
<tr>
<td>Unit 4</td>
<td>1:3.54 (29%)</td>
<td>1:7 (14.3%)</td>
</tr>
<tr>
<td></td>
<td>Change in size and height of tuyers, slag hole height, dimension of blast pipe</td>
<td></td>
</tr>
</tbody>
</table>

*Table 5: Results of the initiative of coke saving in 4 foundry units in Ludhiana*

**What was the end result?**
Improvements in the efficiency of coke usage, either because of better practices in charging of raw material in the cupola or conversion of existing single blast cupola (SBC) to divided blast cupola (DBC).
Acknowledgements

The project “Scaling up Sustainable Development of MSME clusters in India” is led by the Foundation for MSME Clusters (FMC), New Delhi, India and funded by SWITCH Asia, a European Union program that supports the sustainability-related activity of Asian companies.

This publication has been produced under the Project “Scaling up Sustainable Development of MSME Clusters in India” with the financial assistance of the European Union. The Project is implemented by the Foundation for MSME Clusters (FMC) along with GRI (Global Reporting Initiative), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Indian Institute for Corporate Affairs (IICA), Small Industries Development Bank of India (SIDBI) and the United Nations Industrial Development Organization (UNIDO). This publication is lead by GRI. The contents of this publication are the sole responsibility of the authors and can in no way be taken to reflect the views of the European Union or any of the partners. Any part of this report can be reproduced, used, or transmitted, in any form or by any means with due acknowledgement.