



### 2013 Annual Project Review (APR)

## Project Implementation Review (PIR) OF UNDP Supported GEF Financed Projects

# PIMS 1515 - Project Title: Removal of Barriers to Energy Efficiency Improvement in the Steel Rerolling Mill Sector in India

Focal Area	Climate Change – Mitigation
Lead RTA	Butchaiah Gadde
Lead Country(ies)	(IND) India
Revised Planned Closing Date	31 Dec-2013

#### Name of Project Manager / Coordinator:

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#### Project Review & Evaluation:

- Has the project mid-term review been finalized? Yes/No Yes
  - If no, when will it be finalized? Month/Year
- Has the project terminal evaluation report been finalized? Yes/No No If no, when will it be finalized? Month/Year September 2013

Project Website: <u>www.undpgefsteel.gov.in</u>,

http://www.in.undp.org/content/india/en/home/operations/projects/environment\_and\_energy/energy\_efficiencyinsteelrerollingmills.html

### **Explanation for change to Overall DO Rating or Overall IP Rating:**

Based on the criteria for DO rating, the project is expected to achieve or exceed all its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. Therefore, the DO rating of the project is High Satisfactory (HS).

Following are some of the recommendations from RTA perspective where the project can improve further in its next phase:

- (a) It was learnt that, with the success of this project, it has received funding from UNDP TRAC 2 as well as AusAID (bilateral donor) to continue the developments of this UNDP-GEF project to its next phase. It is important that the project shall look at scale up interventions such as (a) direct rolling, (b) improvements in material management for rolls in milling, such as introduction of carbide rolls which will influence longer campaign life and improve surface quality of the products, (c) development of efficient cooling systems and heat exchangers for quenching process which will help to also reduce water usage.
- (b) Providing continued subsidies is not a good practice at all and may lead to market distortion. SRRM units are very much capable to put 100% equity to implement energy efficiency interventions. It is important that they need continued handholding in terms of technical back stopping, which was lacking in this sector. Therefore, from the past three to four years, it was recommended to focus on establishment of TIRFAC software centre, but there was no clarity as on date. Considering the additional support that was received to continue the project, taking this as an opportunity, the project shall implement exit strategy that is being prepared and ensure TIRFAC software centre will be functioning within a year from now. Perhaps it is a good opportunity to even leverage Gols remaining committed co-financing (approx. US\$ 5.4 million) as corpus for the TIRFAC software centre to self-sustain business and establish itself in the market.
- (c) The project design was quite ambitious considering its nature. Working with SMEs (which are normally unorganised), market penetration efforts will last longer which was the case that happened under the project. Once successful demonstrations were seen by the rest of SRRMs, it indeed had a catalytic impact that results in market transformation. But in summary, projects of this nature should be granted at least 5 to 7 years for project implementation period.
- (d) It is important to fully operationalize the developed/established MRV system which should also capture the investments by the SRRMs towards energy efficiency interventions.
- (e) ESCOs modality may not work well and recommended not to focus on such activities.

#### Is this the terminal PIR that will serve as the final project report?

Yes

# If the mid-term review (MTR) OR the terminal evaluation (TE) was started but not completed this reporting period, please explain how these are progressing and note if any delays are expected:

Yes, the terminal evaluation mission of the project was completed in June 2013, but report is still being finalized. When the draft terminal evaluation report was circulated, the implementing partner and PMU are not in agreement with the ratings that were provided. The implementing partner and PMU are providing additional information to the terminal evaluation team so as to revisit the ratings that were provided.

Therefore, terminal evaluators may take time until September 2013 to finalize the evaluation report.

# If the mid-term review (MTR) OR the terminal evaluation (TE) was completed this reporting period, or if this is the final APR/PIR, please address the following points here:

Not yet.

### UNDP Country Office's Comments

# If the mid-term review (MTR) OR the terminal evaluation (TE) was started but not completed this reporting period, please explain how these are progressing and note if any delays are expected:

Terminal Evaluation (TE) started in June 2013. Field visits were undertaken by evaluators from 14<sup>th</sup> June to 25<sup>th</sup> June'2013. Report awaited.

# If the mid-term review (MTR) OR the terminal evaluation (TE) was completed this reporting period, or if this is the final APR/PIR, please address the following points here:

NA. The terminal evaluation report is still being finalized.

### Dates of site visits to project this reporting period:

Pipeline Units Visits, Chennai – 7<sup>th</sup> August '2012 M/s T.K. Steel Rolling Mill, Ludhiana – 12<sup>th</sup> / 13<sup>th</sup> Feb'2013 M/s Bajrang Ispat & Power Ltd., Raipur : 21<sup>st</sup> Feb '2013 M/s Someshwar Ispat, Mehsana, 18<sup>th</sup> March 2013 M/s Bajrang Ispat & Power Ltd., Raipur : 4<sup>th</sup> June 2013

# Dates of Project Steering Committee / Board meetings during reporting period (30 June 2012 to 1 July 2013):

18<sup>th</sup> Project Steering Committee meeting: 15<sup>th</sup> Oct'2012

19<sup>th</sup> Project Steering Committee meeting: 27<sup>th</sup> Feb'2013 To improve energy efficiency in the SRRM Sector by expanding private sector investments in 'win- win' nature of low GHG emitting technologies (EcoTechs)

14th Project Advisory Committee meeting: 18th Feb, 2013

## PROGRESS TOWARD DEVELOPMENT OBJECTIVES

	Description	Description of Indicator	Baseline Level	Target Level at end of project	Level at 30 June 2011	Level at 30 June 2012	Level at 30 June 2013
Objective	To improve	Increase in share of	0 (beginning	Share increased to	The CO2 emission	Out of 29	38 model units
	energy	Eco-Tech used in steel	of the project)	25% (3 million tons)	reduction for the	commissioned model	commissioned by 30
	efficiency in	rerolling sector		9 PJ (Peta Joules)	stated PIR period is	units till date, the	June 2013. In addition
	the SRRM			cumulative energy	35,207 tCO2 and	evaluation in 16 units	4 units are under
	Sector by			savings	cumulative reduction	post implementation	consideration. With
	expanding			0.88 million tons of	over the project	was completed. The	this, the total of 42 out
	private sector			CO2 emissions	period is 73,962 tCO2.	balance 13 units are	of targeted 50 nos. of
	investments			reductions	47 units have been	under stabilization [3	model units are
	in 'win- win'				selected as model	month post	expected to be
	nature of low				units till 30 June 2011	commissioning of	commissioned by
	GHG emitting				against the revised	intervention is left for	September'2013.
	technologies				plan of 50. An account	stabilisation] and the	
	(EcoTechs)				of CO2 reduction by	evaluation shall be	Post implementation
					different units over	done in the coming six	study reports have
					years is given below:	months.	been finalized for 31
					2008: Bhambri 4,754		units. These 31 units
					tCO2	16 units have	have recorded annual
					2009: Bhambri 4,754	recorded saving of	saving of 11,550 Kilo
					tCO2; Prithvi 6,824	10,077 Kilo liters of	litres of furnace oil,
					tCO2	furnace oil, 6,345	12,956 tonnes of coal,
					2010: Bhambri 4,754	tonnes of coal and	20,357 MWh (Units) of
					tCO2; Prithvi 6,824	13,706,205 KWh	power, amounting to
					tCO2; Vivek 622	(Units) of power,	cumulative savings of
					tCO2; MPK 1,491	amounting to savings	2,407,170,075 MJ
					tCO2; AC Strips 132	of 87,819,968 MJ	(2.40 PJ) of energy.
					tCO2; Pulkit 8,600	(0.088 PJ) of energy.	Cumulative total
					tCO2;	Cumulative total	emission reductions
					2011: Bhambri 4,754	emission reductions	from the model /
					tCO2; Prithvi 6,824	as on 30 June 2012	sample units, as on 30
					tCO2; Vivek 622	works out to 1,31,738	June 2013, works out
					tCO2; MPK 1,491	tCO2e.	to 192,891 tCO2e.
					tCO2; AC Strips 132	2008 Bhambri,Benagl	<b>F</b>
							From these inventions,

	tCO2; Pulkit 8,600 tCO2; Ludhiana Steels 1,359 tCO2; Orion Steels 2,322 tCO2 Adarsh 271 tCO2; ARS 5,733 tCO2; Mahalaxmi 3,099 tCO2 It was reported that 26 commissioned units have mobilized a private sector investment of approximately US\$ 8.84 million.	Hammer - 3895 tCO2 2009 Bhambri, Bengal Hammer - 3895 tCO2,Suryadeo-6953 tCO2,Arora- 1705 tCO2,Prithvy - 636tCO2 2010 Bhambri, Bengal Hammer - 3895 tCO2,Suryadeo-6953 tCO2,Arora- 1705 tCO2,Prithvy - 636tCO2, AC Strips - 4242 tCO2, Pilkitt - 8675 tCO2, M.P.K Steels - 3854 tCO2, Vivek -706 tCO2 2011 Bhambri, Bengal Hammer - 3895 tCO2,Ludhiana Suryadeo-6953	the lifetime energy savings works out to be 7.78 PJ and the lifetime CO2 emission avoided is 642,630 tCO2 (considering life of 10 years) Details of the CO2 emission reduction has been provided below: <b>PIR 2008:</b> Benagl Hammer – 671 tCO2; Bhambri Steel – 778 t CO2 ; Shree Prithvi Steel 57t CO2 <b>PIR 2009:</b> Bengal Hammer – 1343 tCO2; Bhambri –
	investment of approximately US\$	636tCO2, AC Strips - 4242 tCO2, Pilkitt - 8675 tCO2, M.P.K Steels - 3854 tCO2, Vivek -706 tCO2	Benagl Hammer – 671 tCO2; Bhambri Steel – 778 t CO2 ; Shree Prithvi Steel 57t CO2
		tCO2,Ludhiana Suryadeo-6953 tCO2,Arora- 1705 tCO2,Prithvy - 636 tCO2, AC Strips -4242 tCO2, Pilkitt - 8675 tCO2, M.P.K Steels - 3854 tCO2, Vivek -706 tCO2, ARS metals -	Bengal Hammer – 1343 tCO2; Bhambri – 1037 t CO2; ARS Metals – 1490 tCO2; Suryadev-7872 tCO2; A C Strips – 1551 t CO2; Arora- 335 tCO2; Dhiman – 1275 tCO2; ; Pulkit – 467 t CO2;
		2504 tCO2, Dhiman Industries -1198 tCO2, Orient Steels - 1018 tCO2, Adarsh -1401 tCO2, Mahalaxmi - 3036tCO2	Shree Prithvy – 681 tCO2; Vivek Re-Rolling – 66 t CO2 <b>PIR 2010:</b>

		2012 Bhambri, Bengal Hammer - 3895 tCO2,Suryadeo-6953 tCO2,Arora- 1705 tCO2,Prithvy - 636tCO2, AC Strips - 4242 tCO2, Pilkitt - 8675 tCO2, M.P.K Steels - 3854 tCO2, Vivek -706tCO2, ARS metals -2504 tCO2, Dhiman Industries - 1198 tCO2, Orient Steels - 1018 tCO2, Adarsh -1401 tCO2, Mahalaxmi - 3036tCO2, T.K.Steels - 609 tCO2.	Bengal       Hammer       –         1343 t CO2; Ludhiana       –       704 tCO2; ARS Metals         –       2554 tCO2; Bhambri       –         –       1037 t CO2;       Suryadev-7872 tCO2;         A C Strips       –       2326 t         CO2; Arora-       2012       tCO2; Dhiman       –         tCO2; Dhiman       –       2185       tCO2; j Pulkit       –         tCO2; MPK Steel       –       1227       tCO2; Shree Prithvy       –         681 tCO2; Vivek Re-       Rolling       –       798 t CO2;         Sujana       Metal       –       2301         tCO2; K L Rathi Steel       –       897 tCO2         PIR 2011:       Bengal       Hammer       –         1343 t CO2; Ludhiana       –       –       1207 tCO2; ARS         Metals       –       2554 tCO2;       Bhambri       –         Bhambri       –       1037 t CO2;       ARS
			A C Strips – 2326 t CO2; Arora- 2012 tCO2; Dhiman – 2185 tCO2; Orient Steel – 1621 tCO2; Pulkit –
			5599 t CO2; Adarsh– 1581 t CO2 ; Mahalaxmi – 1675 tCO2; MPK Steel – 2945 tCO2; Shree
	April 4, 2014 Page	6 of 64	Prithvy – 681 tCO2;

			Vivek Re-Rolling – 798 t CO2; T K Steel – 820
			tCO2; Sujana Metal –
			6904 tCO2; K L Rathi
			Steel – 1794 tCO2
			PIR 2012:
			Bengal Hammer –
			1343 t CO2; Ludhiana
			–1207 tCO2; ARS
			Metals – 2554 tCO2;
			Bhambri – 1037 t CO2;
			Suryadev-7872 tCO2;
			A C Strips – 2326 t
			CO2; Arora- 2012
			tCO2; Dhiman – 2185
			tCO2; Orient Steel –
			1621 tCO2; Pulkit –
			5599 t CO2; Adarsh–
			1724 tCO2 ;
			Mahalaxmi – 2872
			tCO2; MPK Steel –
			2945 tCO2; Shree
			Prithvy – 681 tCO2;
			Vivek Re-Rolling – 798
			t CO2; T K Steel – 1406
			tCO2; Mongia Steel –
			1284 t CO2; Sujana
			Metal – 6904 tCO2;
			Premier Bars – 2811
			tCO2; K L Rathi Steel –
			1794 tCO2.
			PIR 2013:
			Bengal Hammer –

[]				1	4242 + 602 + 113
					1343 t CO2; Ludhiana
					–1207 tCO2; ARS
					Metals – 2554 tCO2;
					Bhambri – 1037 t CO2;
					Suryadev-7872 tCO2;
					A C Strips – 2326 t
					CO2; Arora- 2012
					tCO2; Dhiman – 2185
					tCO2; Orient Steel –
					1621 tCO2; Pulkit –
					5599 t CO2; Adarsh–
					1724 tCO2 ;
					Mahalaxmi – 2872
					tCO2; MPK Steel –
					2945 tCO2; Shree
					Prithvy – 681 tCO2;
					Vivek Re-Rolling – 798
					t CO2; T K Steel – 1406
					tCO2; Mongia Steel –
					2569 t CO2; First Steel
					– 789 tCO2; Sujana
					Metal – 6904 tCO2;
					Advait Steel – 2637
					tCO2; Premier Bars –
					5621 tCO2; Real Ispat
					– 2936 tCO2; Indus
					Smelters – 1508 t CO2;
					Premier Ferro Alloys –
					1509 t CO2; Ramson
					TMT – 3104 t CO2; K L
					Rathi Steel – 1794
					tCO2; Somehwar
					ISpat – 1270 t CO2;
					Sharu Steel – 552 t
					CO2; Ashok Steel –
					287 t CO2; Laxmi Steel
	l	1		1	

			– 596 t CO2; Bajrang
			Metallic – 4575 t CO2
			In addition to the CO2
			emission and energy
			savings achieved
			through direct
			intervention in model
			units, significant GHG
			reduction has been
			achieved in units that
			have replicated EE
			measures through
			project influence.
			An independent
			assessment
			commissioned to
			SAILCON, studied 300
			non-model units on
			stratified random
			basis. The key results
			are given below:
			1. 55% [i.e. 166 nos.]
			of the surveyed 300
			units replicated the EE
			measures.
			2. It has been
			estimated that 42,330
			kL of furnace oil,
			74,529 MWh of
			electricity saved due to interventions on

							<ul> <li>annual basis. [i.e. a savings of 1,706 TJ of thermal energy and 74,529 MWh equivalent to 268 TJ of electrical energy totaling to 1,974 TJ per year].</li> <li>3. The total GHG emissions avoided were 213,424 tCO2 per year. Considering a life time of 10 years, 2,134,240 tCO2 will be avoided.</li> </ul>
Outcome 1	Outcome 1: Benchmarks for Eco-Tech Options & Packages Established	Indicator 1 Industry complies with energy- cum- environment performance bench marks set in respect of model units	No benchmarks	50 model units established to a) Set performance benchmarks b) techno economic viability c) develop MEPs d) design manuals and best practice norms Note: The target has been revised from 30 to 50 model units as the activity on the hardware center was dropped following the mid-term review recommendations.	26 model units have been commissioned including 7 model units during the current reporting period. Discussions were held with Bureau Of Energy Efficiency (BEE ) for finalization of methodology regarding benchmarking studies to be taken up in 8 model units, standards & labeling for major equipment and life cycle analysis (LCA).The Terms of References for	<ul> <li>29 of the 50 planned model units have been commissioned.</li> <li>a) Terms of reference was prepared and floated to Public</li> <li>Sector Units in order to establish benchmarks for Eco- Tech Options for critical equipment.</li> <li>Only one response was received and the same was rejected on technical grounds. The same has been planned to pursue this year.</li> <li>b) Life Cycle analysis has been taken up for</li> </ul>	<ul> <li>38 out of 50 planned model / sample units have been commissioned as on</li> <li>30 June 2013.</li> <li>a) The assignment for "Development of Benchmarks and MEPs for Steel Re- Rolling Mill Sector" was awarded to PWC and is under progress.</li> <li>b) Life Cycle analysis has been completed by SAIL CON for two units viz. M/s Ludhiana Steel Rolling Mill and M/s ARS Metal</li> </ul>

				Standards & Labeling and LCA have been finalised and regression analysis for benchmarking based on the available data is in progress. Labeling of furnaces is being	two model units during the reporting period - M/s Ludhiana Steel Rolling Mill, Ludhiana and M/s ARS Metals Pvt Ltd, Chennai. Draft reports have been received.	Pvt. Ltd.
				discussed and if	c) No activity taken up	
				adopted this would be	on MEPs.	
				the very first example	d) design of manuals -	
				of labeling industrial appliances in India.	completed. Best practice norms - Case	
					studies are being	
					prepared which will	
					serve to provide best	
					practices and best	
					practice norms.	
	Indicator 2	Viability not	Techno-economic	Post implementation	The study for	a) A report on the
	Techno-economic	established	viability including cost	measurements have	establishing Cost	'techno-economic
	viability including cost		recovery (CCE, IRR,	been completed after	Benefit Analysis for 10	viability of the EE
	recovery (CCE, IRR,		Payback, BEP, etc.) is	commissioning and	commissioned units	technology
	paybacks, BEP, etc.) is established		established.	stabilization in 6	assigned to NISST	packages and Eco-
	established			model units. Detailed techno-economic	(National Institute of Secondary Steel	tech options' was completed by SAIL
				viability including cost	Technology) for	RDCIS. Cost Benefit
				recovery wil be	determination of	Analysis (CBA) done
				established in the next	CCE, IRR Paybacks etc	for 10 model /
				reporting period.	for the following 10	sample units, based
					commissioned units	on the actual
					which is under	investment and
					progress	savings figures. CCE,
					M/s Bhambri Steels	IRR, NPV, Paybacks
					Mandigobindgarh	etc has been
					M/s Bengal Hammers	established for all
					(P) Ltd., Kolkata	the units. CBA has

		M/s Adarsh Ispat	been done for
		Udhyog, Durg	following units:
		M/s Vivek Rolling	M/s Bhambri Steels
		Mills,	Mandigobindgarh
		Mandgobindgarh	M/s Bengal
		Shree Prithvy Steel	Hammers (P) Ltd.,
		Rolling Mills, Jaipur	Kolkata
		M/s Ludhiana steel	M/s Adarsh Ispat
		rolling mill, Ludhiana	Udhyog, Durg
		M/s M.P.K Steels (I) ,	M/s Vivek Rolling
		Jaipur	Mills,
		M/s Pulkitt Steel	Mandgobindgarh
		Rolling Mills,	Shree Prithvy Steel
		Puducherry	Rolling Mills, Jaipur
		M/s Mahalaxmi Dhatu	M/s T.K. Steel
		Udhyog, Nagpur	Rolling Mill,
		M/s Arora Iron &	Ludhiana
		Steel, Ludhiana	M/s M.P.K Steels (I)
			, Jaipur
		The published	M/s Pulkitt Steel
		document on "Data	Rolling Mills,
		Gathering and	Puducherry
		Analysis of Eco-Tech	M/s Mahalaxmi
		Options" is being	Dhatu Udhyog,
		upgradad by RDCIS	Nagpur
		(Reserch and	M/s Mongia Steel
		Development Center	Limited, Giridih.
		for Iron and Steel)	
		including the latest	
		identified	
		technologies of Hot	
		Charging, Oxy-fuel	
		Burners, Biomass	
		Gasifiers.	

Indicator 3 Energy Labels & Standards. Minimum energy performance standards (MEPs), designs and manuals after successful implementation of model units and monitoring & evaluation of the EE performance of 10 model units. Design standard and manual of EE equipment. Best practice EE norms	No MEPS No standards or manual of EE equipment No best practice EE norms	Standard design and implementation manuals prepared and distributed	No progress during the reporting period.	Terms of reference was prepared and floated to Public Sector Units to establish standards and labeling for critical equipment. Only one response was received and the same was rejected on technical grounds. This will be pursued in the subsequent reporting period.	<ul> <li>a) MEPS is being prepared for different product grades by PWC as explained as answer to Outcome 1, Indicator 1.</li> <li>b) Procurement guidelines for Critical Equipment under the SRRM sector being prepared.</li> <li>c) Draft RFP prepared for 'Design of standard drawings and specifications for the energy efficient furnace'.</li> </ul>
Best practice EE norms based on 15 model units implemented by the 3rd year of the project.					
Indicator 4 Information module developed and disseminated	Information module is not available	Information modules (1c) developed and disseminated by the end of 18 months of the start of the project.	No progress during the reporting period.	No progress during the reporting period.	Information module on outcome of the Benchmarking study will be developed for dissemination, on completion of the activity.

Outcome	Outcome 2:	Indicator 1	No existing	Established business	6 resident missions	One resident mission	A total of 6 Resident
2	Strengthened	Development of	network	network	were in operation and	in Southern cluster	Missions [RM] were
	Institutional	Business support			were involved in	has been re-	active till 31 <sup>st</sup>
	Arrangement	network			liaising and facilitating	appointed. Total 6	December'2012.
	s				the awareness of eco-	resident missions are	Resident Mission
					tech options in SRRM	active and	(North 2) was handled
					clusters, selection of	operational.	by PMC in New Delhi,
					SRRM units to become		directly. The
					model units, and		respective RMs were
					providing		as follows:
					implementation		1. RM (North 1):
					support. However, 2		NISST covering
					resident missions		states of Punjab,
					South (covering the		J&K, and Himachal
					states of Andhra		Pradesh
					Pradesh, Karnataka,		2. RM (Centre): M/s
					Tamil Nadu & Kerala)		NISST covering
					and North-2 (covering		states of Madhya
					Uttrakhand, Uttar		Pradesh,
					Pradesh, Rajasthan &		Chattisgarh,
					Delhi) were		Maharashtra (only
					discontinued due to		Nagpur)
					unsatisfactory		3. RM (South): M/s
					performance. Efforts		NISST covering
					to establish new		sates of Andhra
					resident missions are		Pradesh, Tamil
					underway.		Nadu, Kerala &
							Karnataka
							4. RM (East): M/s
							NISST covering
							states of West
							Bengal, Bihar &
							Jharkhand
							5. RM (West): M/s
							MITCON covering
							states of

						Maharashtra
						(except Nagpur),
						Gujarat, Daman &
						Diu, Goa
						6. RM (North 2): PMC
						covering states of
						Rajasthan, Haryana,
						Uttar Pradesh, Delhi
						and Uttarakhand.
						However, the RMs
						were scaled down to 2
						Nos., i.e. RM (North 1)
						& RM (Centre) with
						effect from 1 <sup>st</sup>
						January'2013
						preparing for project
						exit as 2013 is terminal
						year.
	Indicator 2	No	Institutional capacity	No progress during	No progress during	No progress during the
	Internationally linked	institutional	strengthened and	the reporting period	the reporting period	reporting period.
	institutional capacity	capacity	technology transfer			However, in the past
						institutional capacity
						has been developed
						with M/s
						Morgardshammer AB,
						Sweden towards
						support of
						computerized Roll
						Pass Design Software.
						Also, efforts were
						made towards
						collaboration with
						Chinese technology
						suppliers & R&D
						institutes.
						institutes.

Indicator 3 TIRFAC Hardware and S/W Centers at MGG and Delhi respectively	No such centers	TIRFAC hardware center activity has been cancelled based on the mid-term evaluation recommendation and decision taken in the 10th PSC meeting held on 4 October 2008 Software centre at Delhi established at 39 Institutional Area, New Delhi	As per the Mid Term review the TIRFAC Hardware Center was dropped. No progress made on the TIRFAC Software Centre during the reporting period	Hardware Center of TIRFAC dropped. No progress made for the TIRFAC Software center during the reporting period.	<ul> <li>a) TIRFAC Hardware Centre was dropped based on mid-term evaluation recommendation and decision taken in the 10<sup>th</sup> PSC meeting.</li> <li>b) A technical cell has been established which has been providing technical assistance to model units to establish EE measures, Training &amp; Capacity building of Stakeholders &amp; Roll Pass Design evaluations etc.</li> </ul>
Indicator 4 Design, standards and implementation manuals put in practice	No manuals	68 training manuals (17 manuals x 2 levels x 2 languages) 13 SOP & SMP manuals (3 base manuals + 10 customized manuals)	Target achieved in the previous reporting period	Developed Standard Operating Practices (SoPs) and Standard Maintenance Practices (SMPs)to SRRM units. Distributed 1250 copies of CDs on the same to SRRM units.	Target achieved in the previous reporting periods. These are also uploaded on website www.undpgefsteel.go v.in

Outcome	Outcome 3:	Indicator 1	No knowledge	Knowledge center set	A new website has	Website	a) The project website
3	Effective	Building with	centre	-	been designed which	(www:undpgefsteel.	i.e.
3	Information	infrastructure setting	Centre	up	will be one of the	gov.in) is updated	www.undpgefsteel.
	Dissemination	up the knowledge			inputs for the	• • •	
		• •			•	periodically. Following activities have been	gov.in is maintained
	Program	center			proposed knowledge		and updated
	(Including				center. Security audit	taken up during the	periodically. Action
	setting up of				for the website has	reporting period	has been initiated
	knowledge				been cleared by STQC	Case studies	to create a static
	centre)				(Standardization,	Documentation of	website containing
					Testing and Quality	interventions in five	knowledge
					Certification),	model units is in	products to benefit
					Government of India	progress. Those five	stakeholders and
					and the National	units are M/s M.P.K	this will be
					Informatics Centre,	Steels (P) Ltd., Jaipur,	maintained even
					Government of India,	M/s Vaishanavi Ispat	after the project is
					will host this website	(P) Ltd.,Durgapur, M/s	closed.
					for 10 years post	Pulkitt Steel Rolling	b) A documentation
					project completion.	Mill,Puducherry, M/s	presenting EE
						Ludhiana Steel Rolling	measures in five
						Mills, Ludhiana, M/s	model units in the
						Vivek Re-Rolling Mill	form of Case
						(P) Ltd.,	studies is in
						Mandigobindgarh).	progress. These five
							units are M/s
						Audio/Video	Bengal Hammer
						documenting	Pvt. Ltd., Kolkata,
						Filming the	M/s ARS Metals
						improvements	Ltd., Chennai, M/s
						completed for 2 units	Pulkit Steel Rolling
						at M/s Ludhiana Steel	Mill, Pondicherry,
						Rolling Mills, Ludhiana	M/s Shree Prithvi
						& M/s Vivek Re –	Steel Rolling Mill,
						Rolling Mill (P) Ltd.,	Jaipur, & M/s
						Mandigobindgarh	M.P.K. Steel rolling
							mill, Jaipur.
						Telecasting	

			(Audio/Video)	c) A/V documentaries
			clippings	of the success
			30 sec audio video	stories of 5 model
			completed and aired	units have been
			on TV in almost 25	developed. The
			channels for a month	units include M/s
			in January 2012.	vivek Rolling Mill,
			1	Punjab, M/s
			2000 nos. of diaries	Vaishnavi Ispat Pvt.
			for 2012 highlighting	Ltd., Durgapur, M/s
			the major	Ludhiana Steel
			achievements was	Rolling Mill,
			and distributed to the	Ludhiana, M/s
			SRRM Units, and other	Pulkit Steel Rolling
			stakeholders.	Mill, Pondicherry &
				M/s M.P.K. Steel
			1250 CDs (Soft Copies)	Rolling Mills, Jaipur.
			For Standard	The A/V includes 10
			<b>Operating Practices</b>	minutes capsules
			and Standard	and also 30 seconds
			Maintenance	versions for these
			Practices prepared	five model units for
			and distributed in	wider
			SRRM units.	dissemination.
				1,000 copies of
			Video conferencing at	these in CDs have
			all the five resident	been produced and
			missions North, South	the copies are being
			and Center operative.	distributed to
				various
			Project Broucher with	stakeholders.
			fact sheet updated	
			and published.	d) In addition to the
				unit-wise A/V
				documentaries, a
				comprehensive

	project overview documentary has also been developed in 10 mins and 30 sec capsules. 1,000 copies of the same has been developed and being distributed.
	e) A "Process Document" comprising of significant project stories, outcomes and lesson learnt is under progress.
	f) Direct Rolling is a new innovation that completely avoids use of re-heating furnace was introduced recently and the commissioning completed. A
	decision was taken in a steering committee meeting to capture this through a A/V for awareness generation. This documentary is

						under progress.
	Indicator 2 Preparation of Detailed Project Plan (DPP)	No DPP	DPP for the Project	Completed and reported. The Detailed Project Plan was an interim report assessing/reviewing the progress of the project till 2005 and provided ecommendations for the roadmap ahead.	Achieved.	Achieved
	Indicator 3 System design, network alliances and mechanism	Not available	Establishment of TIRFAC software center	No progress during the reporting period.	No progress during the reporting period.	PMC is providing technical assistance to sector as and when needed through resident missions, knowledge products and by technical managers to serve as TIRFAC software center. Exit strategy being developed presently which will

		Indicator 4 Information dissemination and knowledge center operationalized	No center	Establish Website	The website, www.undpgefsteel.or g is updated periodically providing updates and programme schedule. Following products have been uploaded on the website - proceedings of National Awareness Workshop, Hyderabad; proceedings of National Technical Workshop, Cochin; Cochin Workshop Gallery; proceedings of National Awareness Workshop, Ahmedabad	a) Website is updated regularly. B) Newsletters were not published during the reporting period as the person in-charge moved out of PMC. C) Steel Resolve consisting of eco-tech options was prepared and distributed during the last reporting period.	<ul> <li>identify a network alliance and mechanisms to serve sector even after the project gets over.</li> <li>a) Website is being updated periodically and key knowledge products are already uploaded and available to those seeking information.</li> <li>b) A static project website is being developed as already explained in an earlier section.</li> </ul>
Outcome	Outcome 4:	Indicator 1	No activity to	Cluster mapping	3 technical awareness	Two national	Target achieved in
4	Enhanced	Mapping of each cluster	enhance	complete	workshops held	workshops. One	previous reporting
	stakeholders	and assessment of	stakeholders	Regional and national	during the reporting	Technical workshop	periods.
	capacity	technology resource	capacity	workshops held	period - (i) National	on "Cost Effective	
		and capacity building			awareness workshop	Concepts in SRRM	
		needs.			at Hyderabad with 41	sector" at Srinagar on	

Inception Workshop /	participants on 20th	28-29 September	
Awareness Workshops	November 2010; (ii)	2011. Second one on	
Awareness workshops	Workshop on	"Latest trends and	
	-		
	"Emerging Trends in	technologies for	
	Energy Efficiency in	Energy Efficiency	
	Steel Re-Rolling Mill	Improvement in the	
	Sector" with 76	Steel Re-Rolling Mill	
	participants at Kochi -	Sector" at Kolkata on	
	the purpose of this	3rd December'2011	
	workshop was to	conducted during the	
	create awareness	reporting period.	
	about Eco-Tech		
	packages and their	Four Interactive	
	benefits, financial and	meetings held with	
	technical assistance	the SRRM units at	
	provided by the	Ahemdabad on 10th	
	project for	April 2012 , Chennai in	
	participating SRRM	Feb 2011, Mumbai in	
	units. The impact of	March 2012, and	
	reduction of CO2	Nasik in Feb 2012 in	
	emissions from such	the reporting period.	
	projects were also		
	described. The		
	participants were		
	introduced to the		
	patented technology		
	of Five Stein India		
	Products Private		
	Limited known "Digit		
	@ Furnace" for		
	improvements in		
	furnaces. The concept		
	of setting up of a		
	Service Center for		
	rebars also was		
	shared; (iii) National		

at Ahmedabad with 92 participants on 18th June, 2011 - SRRM wints in this cluster have a capacity of less than 5 tons of steel production per hour and use shipbreaking acrap as input material. The units in the cluster use pulverized coal as heating medium for the reheating furnaces. Eminent technorats with extensive experience in the field presented papers and discussed the units problems during the interactive sessions. In addition to to the above, a brain storning workshop on Role of Energy Service Company ESCO), Third Party Financial Linkages was held at Chennai on 21st Dec 2010. Speakers from BEE listed ESCOS (Under Grad 18 2) were invited to share their	
92 participants on         18 h June, 2011 -         SRRM units in this         Cluster have a capacity         of less than 5 tons of         steel production per         hour and use         shipbreaking scrap as         input material. The         units in the cluster use         pulverized coal as         heating medium for         there reheating         furnaces. Eminent         technocras with         extensive experience         in the field presented         papers and discussed         the units problems         during the interactive         sessions. In addition         to the above, a brain         storming workshop on         Role of Energy Service         Company ESCO), Third         Party Financing and         Financial Linkages was         heid at Cheanai on         21st Dec 2010.         Speakers from BEE         listed ESCOS (Under         Graft & 2,0 were	awareness workshop
18th June, 2011 -         SRM units in this         Cluster have a capacity         of less than 5 tons of         steel production per         hour and use         shipbreaking scrap as         input material. The         units in the cluster use         pulverized coal as         heating medium for         the reheating         furnaces. Eminent         technocrats with         extensive experience         in the field presented         papers and discussed         during the interactive         scients.         Stort for any Science.         furnaces.         furnaces.         compary Scion, Thrid         Party Financing and         Financial Undages was         held at Chennai on         Z1st Dec 2010.         Speakers From BEE         listed ESCOS (Under         Graft & 2) were         invited to Share their	
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hour and use shipbreaking scrap as input material. The units in the cluster use pulverized coal as heating medium for the reheating furnaces. Eminent technocrats with extensive experience in the field presented papers and discussed the units problems during the interactive sessions. In addition to the above, a brain storming workshop on Role of Energy Service Company ESCOJ, Third Party Financing and Financial Linkages was held at Chennai on 21st Dec 2010. Speakers from BEE listed ESCOs (Under Grad 1 & 2) were invited to share their	of less than 5 tons of
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input material. The         units in the cluster use         pulverized coal as         heating medium for         the reheating         furnaces. Eminent         technocrats with         extensive experience         in the field presented         papers and discussed         the units problems         during the interactive         sessions. In addition         to the above, a brain         storming workshop on         Role of Energy Service         Company ESCO), Third         Party Financing and         Financial Linkages was         held at Chennai on         21st Dec 2010.         Speakers from BEE         listed ESCOS (Under         Grad 1 & 2) were         invited to share their	hour and use
Image: state of the state	shipbreaking scrap as
pulverized coal as heating medium for the reheating furnaces. Eminent technocrats with extensive experience in the field presented papers and discussed the units problems during the interactive sessions. In addition to the above, a brain storming workshop on Role of Energy Service Company ESCO). Third Party Financing and Financial Linkages was held at Chennai on 21st Dec 2010. Speakers from BEE listed ESCOs (Under	input material. The
heating medium for the reheating furnaces. Eminent technocrats with extensive experience in the field presented papers and discussed the units problems during the interactive sessions. In addition to the above, a brain storming workshop on Role of Energy Service Company ESCO), Third Party Financial Linkages was held at Chennai on 21st Dec 2010. Speakers from BEE listed ESCOs (Under Grad 1 & 2) were invited to share their	units in the cluster use
Image: second	pulverized coal as
Image: Section of the system of the syste	heating medium for
technocrats with         extensive experience         in the field presented         papers and discussed         the units problems         during the interactive         sessions. In addition         to the above, a brain         storming workshop on         Role of Energy Service         Company ESCO), Third         Party Financing and         Financial Linkages was         held at Chennai on         21st Dec 2010.         Speakers from BEE         listed ESCOs (Under         Grad 1 & 2) were         invited to share their	the reheating
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in the field presented papers and discussed the units problems during the interactive sessions. In addition to the above, a brain storming workshop on Role of Energy Service Company ESCO), Third Party Financing and Financial Linkages was held at Chennai on 21st Dec 2010. Speakers from BEE listed ESCOs (Under Grad 1 & 2) were invited to share their	technocrats with
papers and discussed the units problems during the interactive sessions. In addition to the above, a brain storming workshop on Role of Energy Service Company ESCO), Third Party Financing and Financial Linkages was held at Chennai on 21st Dec 2010. Speakers from BEE listed ESCOs (Under Grad 1 & 2) were invited to share their	extensive experience
the units problems during the interactive sessions. In addition to the above, a brain storming workshop on Role of Energy Service Company ESCO), Third Party Financing and Financial Linkages was held at Chennai on 21st Dec 2010. Speakers from BEE listed ESCOs (Under Grad 1 & 2) were invited to share their	in the field presented
during the interactive sessions. In addition to the above, a brain storming workshop on Role of Energy Service Company ESCO), Third Party Financing and Financial Linkages was held at Chennai on 21st Dec 2010. Speakers from BEE listed ESCOs (Under Grad 1 & 2) were invited to share their	papers and discussed
sessions. In addition to the above, a brain storming workshop on Role of Energy Service Company ESCO), Third Party Financing and Financial Linkages was held at Chennai on 21st Dec 2010. Speakers from BEE listed ESCOs (Under Grad 1 & 2) were invited to share their	the units problems
to the above, a brain storming workshop on Role of Energy Service Company ESCO), Third Party Financing and Financial Linkages was held at Chennai on 21st Dec 2010. Speakers from BEE listed ESCOs (Under Grad 1 & 2) were invited to share their	during the interactive
storming workshop on Role of Energy Service Company ESCO), Third Party Financing and Financial Linkages was held at Chennai on 21st Dec 2010. Speakers from BEE listed ESCOs (Under Grad 1 & 2) were invited to share their	sessions. In addition
Role of Energy Service Company ESCO), Third Party Financing and Financial Linkages was held at Chennai on 21st Dec 2010. Speakers from BEE listed ESCOs (Under Grad 1 & 2) were invited to share their	to the above, a brain
Company ESCO), Third Party Financing and Financial Linkages was held at Chennai on 21st Dec 2010. Speakers from BEE listed ESCOs (Under Grad 1 & 2) were invited to share their	storming workshop on
Party Financing and Financial Linkages was held at Chennai on 21st Dec 2010. Speakers from BEE listed ESCOs (Under Grad 1 & 2) were invited to share their	Role of Energy Service
Financial Linkages was held at Chennai on 21st Dec 2010. Speakers from BEE listed ESCOs (Under Grad 1 & 2) were invited to share their	Company ESCO), Third
held at Chennai on 21st Dec 2010. Speakers from BEE listed ESCOs (Under Grad 1 & 2) were invited to share their	Party Financing and
21st Dec 2010. Speakers from BEE listed ESCOs (Under Grad 1 & 2) were invited to share their	Financial Linkages was
Speakers from BEE listed ESCOs (Under Grad 1 & 2) were invited to share their	held at Chennai on
listed ESCOs (Under Grad 1 & 2) were invited to share their	21st Dec 2010.
Grad 1 & 2) were invited to share their	Speakers from BEE
invited to share their	listed ESCOs (Under
	invited to share their
expertise and ex	expertise and

Indicator 2	None	Completed	experience with the top management of SRRMs. The workshop concluded that the areas of lighting, alternate renewable fuels, fuel switching, motor replacement, cogeneration, bio mass gasification, thermal optimisation - furnaces, variable frequency drives and compressors may be explored for energy savings under ESCO model. Target achieved	Target achieved.	Target achieved.
Master Plan for capacity building activities finalized	available				
Indicator 3 5 Cluster workshops for units/DEMs/consultant s on 'New' technologies and technology management	No activity to enhance stakeholders capacity	Completed	While the target of 5 cluster workshops for technology information exchange has been achieved, an additioal workshop was held during the reporting period in Bangalore	No progress during the reporting period.	Target achieved. In addition, a) During reporting period, 2 nos. of workshops for SRRM units, Domestic Equipment Manufactures and Consultants on 'New' technologies and technology management were conducted. The first workshop was held

					at Gangtok, Sikkim
					on 21 <sup>st</sup>
					September'2012
					with 60
					participants. Topics
					such as Energy
					Efficient furnace
					design, high
					efficiency
					recuperator,
					pulverized coal firing systems, EE
					measures in rolling
					mill, Automation &
					Control systems,
					biomass gasification
					etc. were discussed.
					b) The second
					workshop was held
					at Mysore,
					Karnataka on 7 <sup>th</sup>
					December'2012
					with 55 nos. of
					participants.
					Technology
					Management &
					relevance to SRRM
					Sector, "Design
					aspect of Housing
					less & Cantilever
					stands and their
					applicability in
					SRRM Sector, Green
					Energy for Heat &
L	I		1		0,

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					Power for Re-rolling Mills from Biomass Gasifier Plant, Case Study GHG emission reduction potential by the Direct Comcast Hot re rolling and limitation thereof, etc. were presented by the experts in
Indicator 4 10 workshops for un owner/managers on cooperative management practic and procurement processes in 5 cluste	stakeholders capacity ses	10 workshops	Target achieved	Target completed	the field. Target achieved.

Indicator 5	No activity to	Completed	Target achieved	Implementation of	During Reporting
Standard Operating	enhance		0	SOP/SMP In following	period, Standard
Practices (SOP) and	stakeholders	To be implemented in		10 model units taken	Operating and
Standard Maintenance	capacity	5 units one in each		up during the	Maintenance Practices
Practices (SMP)		cluster		reporting period	were implemented in
				• T.K.STEEL ROLLING	following 10 model /
				MILLS, LUDHIANA,	sample units:
				PUNJAB	<ul> <li>T.K.Steel Rolling</li> </ul>
				• LAKSMI STEEL	Mills, Ludhiana,
				ROLLING MILLS,	Punjab
				KHANNA, PUNJAB	• Laksmi Steel Rolling
				• MPK STEEL (I) PVT.	Mills, Khanna, Punjab
				LTD., JAIPUR,	• Mpk Steel (I) Pvt.
				RAJASTHAN	Ltd., Jaipur, Rajasthan
				• RAMSONS TMT (P)	<ul> <li>Ramsons Tmt (P)</li> </ul>
				LTD., NAGPUR,	Ltd., Nagpur,
				MAHARASHTRA	Maharashtra
				MAHALAXMI DHATU	<ul> <li>Mahalaxmi Dhatu</li> </ul>
				UDYOG, NAGPUR,	Udyog, Nagpur,
				MAHARASHTRA	Maharashtra
				• MONGIA ISPAT PVT.	<ul> <li>Mongia Ispat Pvt.</li> </ul>
				LTD., GIRIDIH,	Ltd., Giridih,
				JHARKHAND	Jharkhand
				PREMIUM FERRO	• Premium Ferro
				ALLOYS LIMITED,	Alloys Limited, Kochi,
				KOCHI, KERALA	Kerala
				<ul> <li>SUJANA METAL</li> </ul>	<ul> <li>Sujana Metal</li> </ul>
				PRODUCTS LTD.,	Products Ltd.,
				VISHAKAPATNAM,	Vishakapatnam, A.P.
				A.P.	<ul> <li>Bajrang Power &amp;</li> </ul>
				BAJRANG POWER &	Alloys Ltd., Raipur,
				ALLOYS LTD., RAIPUR,	Chattisgarh
				CHATTISGARH	• Ars Metals Ltd.,
				• ARS METALS LTD.,	Chennai, Tamil Nadu
				CHENNAI, TAMIL	
				NADU	

		Draft documents on SOP Rolling Mill, SMP Rolling Mill, SOP Re- Heating Furnace & SMP Re-Heating Furnace submitted for 8 Units.	

Indicator 6	No activity to	To be implemented in	No progress during	Implementation of	a) Implementation of
'Best Practices'	enhance	two units	the reporting period	ISO9000 /ISO 14001	ISO 9001 / ISO
program developed and	stakeholders		the reporting period	taken up in 16 Model	14001 completed in
implemented				units during the	following 16 Model
implemented	capacity			reporting period.The	Units:
					Offito.
				implementation of ISO	ISO 9001:
				9000 taken up in the	1. T. K. Steel Rolling
				following units	Mills, Ludhiana,
				• T.K.STEEL ROLLING	2. Laksmi Steel
				MILLS, LUDHIANA,	Rolling Mills,
				PUNJAB	Khanna, 3. Ramsons Tmt (P)
				LAKSMI STEEL	Ltd., Nagpur
				ROLLING MILLS,	4. Mongia Steel Ltd.,
				KHANNA, PUNJAB	Giridih,
				RAMSONS TMT (P)	5. Premium Ferro
				LTD., NAGPUR,	Alloys Limited,
				MAHARASHTRA	Kochi, 6. Sujana Metal
				MONGIA STEEL LTD.,	Products Pvt. Ltd.
				GIRIDIH, JHARKHAND	7. ARS Metals Ltd.,
				PREMIUM FERRO	Chennai, Tamil
				ALLOYS LIMITED,	Nadu
				KOCHI, KERALA	8. First Steel Co. (Pvt)
				ARORA IRON &	Ltd., Hubli,
				STEEL, LUDHIANA,	ISO 14001:
					1. T.K. Steel Rolling
				• ARS METALS LTD.,	Mills, Ludhiana,
				CHENNAI, TAMIL	2. Ludhina Steel
					Rolling Mills,
				• FIRST STEEL CO.	Ludhiana,
				(PVT) LTD., HUBLI,	3. Mongia Steel Ltd.,
				KARNATAKA	Giridih, Jharkhand 4. Sujana Metal
				and implementation	Products Ltd.,
				of ISO 14001 taken up	Vishakapatnam,
				in the following units	5. ARS Metals Ltd.,
				T.K. STEEL ROLLING	Chennai, Tamil
				MILLS, LUDHIANA,	Nadu

			PUNJAB	6. Premium Ferro
			<ul> <li>LUDHINA STEEL</li> </ul>	Alloys Limited, Kochi,
			ROLLING MILLS,	7. M.P.K. Steel (I) Pvt.
			LUDHIANA, PUNJAB	Ltd., Jaipur,
			• MONGIA STEEL LTD.,	8. Ramsons Tmt (P)
			GIRIDIH, JHARKHAND	Ltd., Nagpur,
			<ul> <li>SUJANA METAL</li> </ul>	
			PRODUCTS LTD.,	Salient feature of the
			VISHAKAPATNAM,	assignment included training of Internal
			A.P.	Audit, Pre
			<ul> <li>ARS METALS LTD.,</li> </ul>	Certification Audits,
			CHENNAI, TAMIL	Development of
			NADU	Energy /
			<ul> <li>PREMIUM FERRO</li> </ul>	Environmental
			ALLOYS LIMITED,	policies and procedures and
			KOCHI, KERALA	guidance provided for
			• M.P.K. STEEL (I) PVT.	documentations.
			LTD., JAIPUR,	
			RAJASTHAN	b) Implementation of
			<ul> <li>RAMSONS TMT (P)</li> </ul>	5S has been
			LTD., NAGPUR,	successfully
			MAHARASHTRA	completed in the
			Implementation of	following units:
			Initial Quality &	1. T.K.Steel Rolling
			Environment Review	Mills, Ludhiana, <b>2.</b> Laksmi Steel
			Completed in all units,	Z. Laksmi Steel Rolling Mills,
			workmen training	Khanna,
			completed in all units,	3. Dhiman Industries
			draft quality /	Pvt. Ltd., Mandi
			environmental policy	Gobindgarh,
			prepared, internal	4. Ramsons Tmt (P)
			audit under	Ltd., Nagpur, <b>5.</b> Mahalaxmi Dhatu
			finalization.	Udyog, Nagpur,
				6. Mongia Ispat Pvt.
			Electrical audits in 9	Ltd., Giridih,
			model units for	7. Premium Ferro
		L 4 2014 Page 20		Alloys Limited,

Three study tours for   enhance   Roll Pass design (RPD)   I I I I I I I I I I I I I I I I I I		PUNJAB 6. M/s Pren			dicator 7 aree study tours for	No activity to enhance	Three study tours	Four workshops on Roll Pass design (RPD)	MANDI GOBINDGARH, PUNJAB	Vishakapatnam 9. ARS Metals Ltd. Chennai, 10. Bengal Hammers Pvt. Ltd., Kolkata c) "Performance Improvement Training (PITs)' programmes has been conducted ir the following 6 nos of units, during reporting period: 1. M/s Sharu Steel, Ludhiana 2. M/s Ashok Steel Industries, Mandi Gobindgarh 3. M/s Real Ispat & Power Ltd. Raipur 4. M/s Bajrang Power & Ispat Ltd., Raipur 5. M/s Someshwar Ispat Pvt. Ltd. Gujarat 6. M/s Premier Bars Ltd., Jaipur
Indicator 7       No activity to       Three study tours       Four workshops on       Not planned.       a) 2       nos.       o	MANDI GOBINDGARH, Gujarat PUNJAB 6. M/s Premie									
Image: Second state of the study tours       Image: Second state of the	INDUSTRIES PVT. LTD., Ispat Pvt. Ltd. MANDI GOBINDGARH, Gujarat PUNJAB 6. M/s Premie	INDUSTRIES PVT. LTD., Ispat Pvt. L							PUNJAB	
<ul> <li>Indicator 7</li> <li>Indicato</li></ul>	<ul> <li>DHIMAN</li> <li>Someshwar</li> <li>INDUSTRIES PVT. LTD.,</li> <li>Ispat Pvt. Ltd.</li> <li>MANDI GOBINDGARH,</li> <li>Gujarat</li> <li>PUNJAB</li> <li>M/s Premier</li> </ul>		• DHIMAN Someshwar						MILLS, LUDHIANA,	Ltd., Raipur
Indicator 7       No activity to       Three study tours       Four workshops on       Not planned.       a) 2       nos.       or	PUNJAB       5. M/s         • DHIMAN       Someshwar         INDUSTRIES PVT. LTD.,       Ispat Pvt. Ltd         MANDI GOBINDGARH,       Gujarat         PUNJAB       6. M/s	PUNJAB     5. M/s       • DHIMAN     Someshwar       INDUSTRIES PVT. LTD.,     Ispat Pvt. L	PUNJAB 5. M/s • DHIMAN Someshwar						• T.K. STEEL ROLLING	Power & Ispa
Image: Second	MILLS, LUDHIANA,       Ltd., Raipur         PUNJAB       5.         MILLS, LUDHIANA,       Someshwar         PUNJAB       Someshwar         INDUSTRIES PVT. LTD.,       Ispat Pvt. Ltd.         MANDI GOBINDGARH,       Gujarat         PUNJAB       6.	MILLS, LUDHIANA,       Ltd., Raipur         PUNJAB       5.         MILLS, LUDHIANA,       Someshwar         INDUSTRIES PVT. LTD.,       Ispat Pvt. L	MILLS, LUDHIANA,     Ltd., Raipur       PUNJAB     5.       MILLS, LUDHIANA,     Someshwar							-
Image: Second	KHANNA, PUNJAB       4. M/s Bajran         T.K. STEEL ROLLING       Power & Ispat         MILLS, LUDHIANA,       Ltd., Raipur         PUNJAB       5. M/s         OHIMAN       Someshwar         INDUSTRIES PVT. LTD.,       Ispat Pvt. Ltd.         MANDI GOBINDGARH,       Gujarat         PUNJAB       6. M/s Premie	KHANNA, PUNJAB       4. M/s Bajr         T.K. STEEL ROLLING       Power & Is         MILLS, LUDHIANA,       Ltd., Raipur         PUNJAB       5. M/s         OHIMAN       Someshwar         INDUSTRIES PVT. LTD.,       Ispat Pvt. L	KHANNA, PUNJAB       4. M/s       Bajran         • T.K. STEEL ROLLING       Power & Ispan         MILLS, LUDHIANA,       Ltd., Raipur         PUNJAB       5. M/s         • DHIMAN       Someshwar							Raipur
Image: state of the state	Rolling Mills,       Raipur         KHANNA, PUNJAB       4.         M/s       Bajran         T.K. STEEL ROLLING       Power & Ispat         MILLS, LUDHIANA,       Ltd., Raipur         PUNJAB       5.         M/s       Someshwar         INDUSTRIES PVT. LTD.,       Ispat Pvt. Ltd.         MANDI GOBINDGARH,       Gujarat         PUNJAB       6.	Rolling Mills,       Raipur         KHANNA, PUNJAB       4.         M/s       Bajr         T.K. STEEL ROLLING       Power & Is         Mills, LUDHIANA,       Ltd., Raipur         PUNJAB       5.         M/s       Someshwar         INDUSTRIES PVT. LTD.,       Ispat Pvt. L	Rolling Mills,       Raipur         KHANNA, PUNJAB       4. M/s Bajran         T.K. STEEL ROLLING       Power & Ispat         Mills, LUDHIANA,       Ltd., Raipur         PUNJAB       5. M/s         OHIMAN       Someshwar							-
<ul> <li>Indicator 7</li> <li>No activity to</li> <li>Three study tours</li> <li>Four workshops on</li> <li>Not planned.</li> <li>A Mower Ltd., Raipur</li> <li>KHANNA, PUNJAB</li> <li>KASMI STEEL ROLLING MILLS, KHANNA, PUNJAB</li> <li>KANNA, PUNJAB</li> <li>M/s Bajrang</li> <li>T.K. STEEL ROLLING MILLS, LUDHIANA, PUNJAB</li> <li>M/s Bajrang</li> <li>T.K. STEEL ROLLING</li> <li>Mower &amp; Ispan</li> <li>Mos Bajrang</li> <li>T.K. STEEL ROLLING</li> <li>T.K. STEEL ROLING</li> <li>T.K. STEEL ROLLING</li></ul>	Image: state in the state	A LAKSMI STEEL & & Power L ROLLING MILLS, KHANNA, PUNJAB 4. M/s Bajr • T.K. STEEL ROLLING Power & Is MILLS, LUDHIANA, PUNJAB 5. M/s • DHIMAN 50meshwar INDUSTRIES PVT. LTD., Ispat Pvt. L	<ul> <li>LAKSMI STEEL</li> <li>ROLLING MILLS,</li> <li>KHANNA, PUNJAB</li> <li>M/s Bajran</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispan</li> <li>T.K. STEEL ROLLING</li> <li>Ltd., Raipur</li> <li>PUNJAB</li> <li>M/s</li> <li>M/s</li> <li>Model and the second and the se</li></ul>							-
<ul> <li>A M/s Real Ispar</li> <li>A M/s Real Ispar</li> <li>A M/s Real Ispar</li> <li>CAKSMI STEEL</li> <li>ROLLING MILLS,</li> <li>RAJASTHAN</li> <li>CAKSMI STEEL</li> <li>ROLLING MILLS,</li> <li>RAJASTHAN</li> <li>CAKSMI STEEL</li> <li>ROLLING MILLS,</li> <li>RAJASTHAN</li> <li>A M/s Bajrang</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispar</li> <li>T.K. STEEL ROLLING</li> <li>M/s Bajrang</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispar</li> <li>T.K. STEEL ROLLING</li> <li>T.K. STEEL ROLING</li> <li>T.K. STEEL ROLLING</li> <li>T</li></ul>	RAJASTHAN3. M/s Real Ispa & Power Ltd ROLLING MILLS, KHANNA, PUNJAB4. M/s Bajrar Power & Ispa thd., Raipur• T.K. STEEL ROLLINGPower & Ispa Ltd., Raipur• T.K. STEEL ROLLINGPower & Ispa Ltd., Raipur• DHIMANSomeshwar INDUSTRIES PVT. LTD., MANDI GOBINDGARH, PUNJAB• DHIMANGujarat PUNJAB• DHIMAB6. M/s Premie O	RAJASTHAN 3. M/S Real IS • LAKSMI STEEL & Power L ROLLING MILLS, Raipur KHANNA, PUNJAB 4. M/S Bajr • T.K. STEEL ROLLING Power & IS MILLS, LUDHIANA, Ltd., Raipur PUNJAB 5. M/S • DHIMAN 50meshwar INDUSTRIES PVT. LTD., Ispat Pvt. L	RAJASTHAN 3. M/s Real Ispa • LAKSMI STEEL & Power Ltd ROLLING MILLS, Raipur • T.K. STEEL ROLLING Power & Ispa MILLS, LUDHIANA, Ltd., Raipur PUNJAB 5. M/s • DHIMAN Someshwar						.,	
<ul> <li>Indicator 7</li> <li>Indicato</li></ul>	LTD., JAIPUR, RAJASTHAN 3. M/s Real Ispa • LAKSMI STEEL & Power Ltd ROLLING MILLS, Raipur KHANNA, PUNJAB 4. M/s Bajran • T.K. STEEL ROLLING Power & Ispa MILLS, LUDHIANA, Ltd., Raipur PUNJAB 5. M/s • DHIMAN Someshwar INDUSTRIES PVT. LTD., Ispat Pvt. Ltd MANDI GOBINDGARH, Gujarat PUNJAB 6. M/s Premie	LTD., JAIPUR, RAJASTHAN S. M/s Real Is LAKSMI STEEL ROLLING MILLS, KHANNA, PUNJAB T.K. STEEL ROLLING Power & Is MILLS, LUDHIANA, PUNJAB DHIMAN Someshwar INDUSTRIES PVT. LTD., Ispat Pvt. L	LTD., JAIPUR, RAJASTHAN 3. M/s Real Ispa • LAKSMI STEEL & Power Ltd ROLLING MILLS, KHANNA, PUNJAB 4. M/s Bajran • T.K. STEEL ROLLING Power & Ispa MILLS, LUDHIANA, PUNJAB 5. M/s • DHIMAN Someshwar							
<ul> <li>Mandi Gobindgarh</li> <li>M.P.K. STEEL (I) PVT.</li> <li>LTD., JAIPUR,</li> <li>RAJASTHAN</li> <li>M/s Real Ispating</li> <li>LAKSMI STEEL</li> <li>ROLLING MILLS,</li> <li>RAJASTHAN</li> <li>M/s Bajrang</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispating</li> <li>T.K. STEEL ROLLING</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispating</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispating</li> <li>T.K. STEEL ROLLING</li> <li>T.K. STEE</li></ul>	<ul> <li>M.P.K. STEEL (I) PVT.</li> <li>Mandi</li> <li>Gobindgarh</li> <li>RAJASTHAN</li> <li>M/s Real Ispation</li> <li>LAKSMI STEEL</li> <li>ROLLING MILLS,</li> <li>KHANNA, PUNJAB</li> <li>M/s Bajrant</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispation</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispation</li> <li>POWIJAB</li> <li>M/s</li> <li>M/s</li> <li>Bajrant</li> <li>Someshwart</li> <li>INDUSTRIES PVT. LTD.,</li> <li>Ispat Pvt. Ltd.</li> <li>MANDI GOBINDGARH,</li> <li>Gujarat</li> <li>PUNJAB</li> <li>M/s</li> <li>Premie</li> </ul>	<ul> <li>M.P.K. STEEL (I) PVT.</li> <li>Mandi</li> <li>Gobindgarh</li> <li>RAJASTHAN</li> <li>M/s Real Is</li> <li>LAKSMI STEEL</li> <li>ROLLING MILLS,</li> <li>Raipur</li> <li>KHANNA, PUNJAB</li> <li>M/s Bajr</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Is</li> <li>MILLS, LUDHIANA,</li> <li>Ltd., Raipur</li> <li>PUNJAB</li> <li>M/s</li> <li>M/s</li> <li>Someshwar</li> <li>INDUSTRIES PVT. LTD.,</li> <li>Ispat Pvt. L</li> </ul>	<ul> <li>M.P.K. STEEL (I) PVT.</li> <li>Mandi</li> <li>Gobindgarh</li> <li>RAJASTHAN</li> <li>M/s Real Ispation</li> <li>LAKSMI STEEL</li> <li>Power Ltd</li> <li>ROLLING MILLS,</li> <li>KHANNA, PUNJAB</li> <li>M/s Bajrar</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispation</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispation</li> <li>Power &amp; Ispation</li> <li>Mills, LUDHIANA,</li> <li>Ltd., Raipur</li> <li>PUNJAB</li> <li>M/s</li> <li>M/s</li> <li>Someshwar</li> </ul>							
GIRIDIH, JHARKHAND       Industries,         M.P.K. STEEL (I) PVT.       Mandi         LTD., JAIPUR,       Gobindgarh         RAJASTHAN       3.         M/S Real Ispa       - LAKSMI STEEL         - LAKSMI STEEL       & Power Ltd.         ROLLING MILLS,       Raipur         KHANNA, PUNJAB       4.         M/S Bajrang       - T.K. STEEL ROLLING         MILLS, LUDHIANA,       Power & Ispa         OHIMAN       Someshwar         INDUSTRIES PVT. LTD.,       Someshwar         INDUSTRIES PVT. LTD.,       Someshwar         INDUSTRIES PVT. LTD.,       Gujarat         OHIMAN       Someshwar         INDUSTRIES PVT. LTD.,       Gujarat         OHIMAN       Someshwar         INDUSTRIES PVT. LTD.,       Gujarat         OHIMAN       Someshwar         INDUSTRIES PVT. LTD.,       Gujarat         OHIMAR       Gujarat         OHIMAR       M/s         Bars Ltd., Jaipur       Someshwar         INDUSTRIES PVT. LTD.,       Bars Ltd., Jaipur         MAND GOBINDGARH,       OHIMAR         Bars Ltd., Jaipur       Someshwar         ON settivity to       Three study tours       Four workshops on	GIRIDIH, JHARKHAND • M.P.K. STEEL (I) PVT. LTD., JAIPUR, RAJASTHAN • LAKSMI STEEL • LAKSM	GIRIDIH, JHARKHAND M.P.K. STEEL (I) PVT. Mandi Gobindgarh RAJASTHAN S. M/s Real Is A M/s Real Is A Power L ROLLING MILLS, KHANNA, PUNJAB T.K. STEEL ROLLING MILLS, LUDHIANA, Ltd., Raipur PUNJAB S. M/s DHIMAN Someshwar INDUSTRIES PVT. LTD., Ispat Pvt. L	GIRIDIH, JHARKHAND M.P.K. STEEL (I) PVT. LTD., JAIPUR, RAJASTHAN M/s Real Ispa • LAKSMI STEEL ROLLING MILLS, KHANNA, PUNJAB • T.K. STEEL ROLLING MILLS, LUDHIANA, POwer & Ispa MILLS, LUDHIANA, Ltd., Raipur PUNJAB • DHIMAN Someshwar							
<ul> <li>MONGIA STEEL LTD., GIRIDIH, JHARKHAND</li> <li>M.P.K. STEEL (I) PVT. LTD., JAIPUR, RAJASTHAN</li> <li>M/S Real Ispa • LAKSMI STEEL</li> <li>M/S Real Ispa • LAKSMI STEEL</li> <li>ROLLING MILLS, KHANNA, PUNJAB</li> <li>M/S Bajrang</li> <li>T.K. STEEL ROLLING MILLS, LUDHIANA, PUNJAB</li> <li>M/S Premie Bars Ltd., Jajpur</li> </ul>	<ul> <li>MONGIA STEEL LTD., GIRIDIH, JHARKHAND</li> <li>M.P.K. STEEL (I) PVT.</li> <li>Mandi Gobindgarh</li> <li>M.JASTHAN</li> <li>M/s Real Ispa e LAKSMI STEEL</li> <li>POWER Ltd ROLLING MILLS,</li> <li>KHANNA, PUNJAB</li> <li>M/s Bajran</li> <li>T.K. STEEL ROLLING</li> <li>Molse Bajran</li> <li>T.K. STEEL ROLLING</li> <li>Bajran</li> <li>Bajran<!--</td--><td><ul> <li>MONGIA STEEL LTD., GIRIDIH, JHARKHAND</li> <li>M.P.K. STEEL (I) PVT.</li> <li>Mandi</li> <li>M.P.K. STEEL (I) PVT.</li> <li>Mandi</li> <li>Gobindgarh</li> <li>RAJASTHAN</li> <li>M/s Real Is</li> <li>LAKSMI STEEL</li> <li>Power L</li> <li>ROLLING MILLS,</li> <li>KHANNA, PUNJAB</li> <li>M/s Bajr</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Is</li> <li>MILLS, LUDHIANA,</li> <li>Ltd., Raipur</li> <li>N/s</li> <li>Someshwar</li> <li>INDUSTRIES PVT. LTD.,</li> <li>Ispat Pvt. L</li> </ul></td><td><ul> <li>MONGIA STEEL LTD., GIRIDIH, JHARKHAND</li> <li>M.P.K. STEEL (I) PVT.</li> <li>Mandi Gobindgarh</li> <li>M.P.K. STEEL (I) PVT.</li> <li>LTD., JAIPUR,</li> <li>Mos Real Ispa (LAKSMI STEEL</li> </ul></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></li></ul>	<ul> <li>MONGIA STEEL LTD., GIRIDIH, JHARKHAND</li> <li>M.P.K. STEEL (I) PVT.</li> <li>Mandi</li> <li>M.P.K. STEEL (I) PVT.</li> <li>Mandi</li> <li>Gobindgarh</li> <li>RAJASTHAN</li> <li>M/s Real Is</li> <li>LAKSMI STEEL</li> <li>Power L</li> <li>ROLLING MILLS,</li> <li>KHANNA, PUNJAB</li> <li>M/s Bajr</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Is</li> <li>MILLS, LUDHIANA,</li> <li>Ltd., Raipur</li> <li>N/s</li> <li>Someshwar</li> <li>INDUSTRIES PVT. LTD.,</li> <li>Ispat Pvt. L</li> </ul>	<ul> <li>MONGIA STEEL LTD., GIRIDIH, JHARKHAND</li> <li>M.P.K. STEEL (I) PVT.</li> <li>Mandi Gobindgarh</li> <li>M.P.K. STEEL (I) PVT.</li> <li>LTD., JAIPUR,</li> <li>Mos Real Ispa (LAKSMI STEEL</li> </ul>							
Image: State indicator 7       No activity to       Three study tours       Four workshops on       Not planned.       a) 2       nos.       o	CHATTISGARH MONGIA STEEL LTD., GIRIDIH, JHARKHAND M.P.K. STEEL (I) PVT. Mandi LTD., JAIPUR, Gobindgarh M.S. Real Ispa LAKSMI STEEL ROLLING MILLS, KHANNA, PUNJAB M/S Bajrar T.K. STEEL ROLLING MILLS, LUDHIANA, PUNJAB MILLS, LUDHIANA, Ltd., Raipur Someshwar INDUSTRIES PVT. LTD., Ispat Pvt. Ltd. MANDI GOBINDGARH, PUNJAB G M/S Premie	CHATTISGARH Steel, Ludhia • MONGIA STEEL LTD., 2. M/s Ashok S GIRIDIH, JHARKHAND Industries, • M.P.K. STEEL (I) PVT. Mandi LTD., JAIPUR, Gobindgarh RAJASTHAN 3. M/s Real Is • LAKSMI STEEL & Power L ROLLING MILLS, Raipur KHANNA, PUNJAB 4. M/s Bajr • T.K. STEEL ROLLING Power & Is MILLS, LUDHIANA, Ltd., Raipur PUNJAB 5. M/s • DHIMAN Someshwar INDUSTRIES PVT. LTD., Ispat Pvt. L	CHATTISGARH Steel, Ludhiana • MONGIA STEEL LTD., GIRIDIH, JHARKHAND Industries, • M.P.K. STEEL (I) PVT. Mandi LTD., JAIPUR, Gobindgarh RAJASTHAN 3. M/s Real Ispa • LAKSMI STEEL & & Power Ltd ROLLING MILLS, KHANNA, PUNJAB 4. M/s Bajrar • T.K. STEEL ROLLING Power & Ispa MILLS, LUDHIANA, Ltd., Raipur PUNJAB 5. M/s • DHIMAN Someshwar							
<ul> <li>Indicator 7</li> <li>Indicato</li></ul>	LTD., DURG, 1. M/s Shar Steel, Ludhiana • MONGIA STEEL LTD., 2. M/s Ashok Stee GIRIDIH, JHARKHAND • M.P.K. STEEL (I) PVT. Mandi UTD., JAIPUR, 3. M/s Real Ispa • LAKSMI STEEL ROLLING MILLS, Raipur KHANNA, PUNJAB • T.K. STEEL ROLLING MILLS, LUDHIANA, Ltd., Raipur PUNJAB • DWer & Ispa MILLS, LUDHIANA, Ltd., Raipur PUNJAB • DM/S • DHIMAN NDUSTRIES PVT. LTD., Ispat Pvt. Ltd. MANDI GOBINDGARH, Gujarat PUNJAB • C. M/s Premie	LTD., DURG, CHATTISGARH • MONGIA STEEL LTD., GIRIDIH, JHARKHAND • M.P.K. STEEL (I) PVT. LTD., JAIPUR, RAJASTHAN • LAKSMI STEEL ROLLING MILLS, KHANNA, PUNJAB • T.K. STEEL ROLLING MILLS, LUDHIANA, HANNA, PUNJAB • DHIMAN Someshwar INDUSTRIES PVT. LTD., ISPAT PVT. L	LTD., DURG, CHATTISGARH MONGIA STEEL LTD., GIRIDIH, JHARKHAND MONGIA STEEL LTD., GIRIDIH, JHARKHAND M.P.K. STEEL (I) PVT. LTD., JAIPUR, RAJASTHAN A. M/s Real Ispa • LAKSMI STEEL ROLLING MILLS, KHANNA, PUNJAB • T.K. STEEL ROLLING Power & Ispa MILLS, LUDHIANA, PUNJAB • DHIMAN Someshwar							
<ul> <li>ADARSH ISPAT PVT.</li> <li>reporting period:</li> <li>LTD., DURG,</li> <li>M/s Shart,</li> <li>CHATTISGARH</li> <li>MONGIA STEEL LTD.,</li> <li>M/s Ashok Stee,</li> <li>Ludhiana</li> <li>MONGIA STEEL LTD.,</li> <li>M/s Ashok Stee,</li> <li>Industries,</li> <li>M/s Rai Ispa</li> <li>LAKSMI STEEL</li> <li>Power Ltd.,</li> <li>Raipur</li> <li>KHANNA, PUNJAB</li> <li>M/s Bajrang</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispa</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispa</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispa</li> <li>T.K. STEEL ROLLING</li> <li>M/s Raipur</li> <li>KHANNA, PUNJAB</li> <li>M/s Bajrang</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispa</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispa</li> <li>T.K. STEEL ROLLING</li> <li>Someshwar</li> <li>INDUSTRIES PVT. LTD.,</li> <li>Ispat Pvt. Ltd.,</li> <li>MANDI GOBINDGARH,</li> <li>Gujarat</li> <li>PUNJAB</li> <li>M/s Premie</li> <li>Bars Ltd., Jajuur</li> <li>Raipur</li> <li>Raipur</li> <li>Raipur</li> <li>Raipur</li> <li>Raipur</li> <li>Raipur</li> <li>Raipur</li> <li>KHANNA, PUNJAB</li> <li>M/s Bajrang</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispa</li> <li>M/s</li> <li>Bajrang</li> <li>Bajrang</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispa</li> <li>M/s</li> <li>Bajrang</li> <li>Raipur</li> <li>KHANNA, PUNJAB</li> <li>M/s</li> <li>Morean</li> <li>Someshwar</li> <li>INDUSTRIES PVT. LTD.,</li> <li>Ispat Pvt. Ltd.</li> <li>MAND GOBINDGARH,</li> <li>Gujarat</li> <li>PUNJAB</li> <li>M/s</li> <li>Bars Ltd., Jajpur</li> <li>Bars Ltd., Jajpur</li> <li>Bars Ltd., Jajpur</li> </ul>	<ul> <li>ADARSH ISPAT PVT.</li> <li>reporting period:</li> <li>LTD., DURG,</li> <li>M/s Shar</li> <li>CHATTISGARH</li> <li>MONGIA STEEL LTD.,</li> <li>CMONGIA STEEL LTD.,</li> <li>MONGIA STEEL LTD.,</li> <li>MARDI</li> <li>MONGIA STEEL LTD.,</li> <li>MARDI</li> <li>MARDI</li></ul>	<ul> <li>ADARSH ISPAT PVT.</li> <li>reporting period</li> <li>LTD., DURG,</li> <li>M/s Sh</li> <li>CHATTISGARH</li> <li>MONGIA STEEL LTD.,</li> <li>M/s Ashok S</li> <li>GIRIDIH, JHARKHAND</li> <li>MAstries,</li> <li>MONSIA STEEL (I) PVT.</li> <li>Mandi</li> <li>LTD., JAIPUR,</li> <li>Gobindgarh</li> <li>RAJASTHAN</li> <li>M/s Real Is</li> <li>LAKSMI STEEL</li> <li>APower L</li> <li>ROLLING MILLS,</li> <li>Raipur</li> <li>KHANNA, PUNJAB</li> <li>M/s Bajr</li> <li>T.K. STEEL ROLLING</li> <li>POWER &amp; IS</li> <li>MILLS, LUDHIANA,</li> <li>Ltd., Raipur</li> <li>PUNJAB</li> <li>M/s</li> <li>M/s</li> <li>Someshwar</li> <li>INDUSTRIES PVT. LTD.,</li> <li>Ispat Pvt. L</li> </ul>	<ul> <li>ADARSH ISPAT PVT.</li> <li>reporting period:</li> <li>LTD., DURG,</li> <li>M/s Shar</li> <li>CHATTISGARH</li> <li>MONGIA STEEL LTD.,</li> <li>M/s Ashok Stee</li> <li>GIRIDIH, JHARKHAND</li> <li>Industries,</li> <li>M.P.K. STEEL (I) PVT.</li> <li>Mandi</li> <li>Gobindgarh</li> <li>RAJASTHAN</li> <li>M/s Real Ispation</li> <li>LAKSMI STEEL</li> <li>ROLING MILLS,</li> <li>KHANNA, PUNJAB</li> <li>M/s Bajrar</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispation</li> <li>T.K. STEEL ROLLING</li> <li>M/s Bajrar</li> <li>T.K. STEEL ROLLING</li> <li>M/s Bajrar</li> <li>S. M/s Someshwar</li> </ul>							
A.P. of units, during reporting period: LTD., DURG, 1. M/s Sharu Steel, Ludhiana • MONGIA STEEL LTD., GIRIDIH, JHARKHAND • M.P.K. STEEL (I) PVT. LTD., JAIPUR, RAJASTHAN • M.P.K. STEEL (I) PVT. LTD., JAIPUR, RAJASTHAN • LAKSMI STEEL ROLLING MILLS, LUDHIANA, PUNJAB • T.K. STEEL ROLLING MILLS, LUDHIANA, PUNJAB • J.K. STEEL ROLLING MILLS, SOmeshwar INDUSTRIES PVT. LTD., MANDI GOBINDGARH, PUNJAB • J.M.S • M/s Pairang MILLS, SOMESHWAR • J.K. STEEL ROLLING MILLS, SOMESHWAR • J.K. STEEL ROLLING • J.K. STEEL ROLING • J.K. STEEL	A.P. of units, durin reporting period: LTD., DURG, 1. M/s Shar CHATTISGARH StEeL LTD., OMORGIA STEEL LTD., GRIDIH, JHARKHAND • M.P.K. STEEL (I) PVT. Mandi LTD., JAIPUR, Gobindgarh RAJASTHAN 3. M/s Real Ispa • LAKSMI STEEL & & Power Ltd ROLLING MILLS, Raipur • T.K. STEEL ROLLING MILLS, LUDHIANA, PUNJAB 4. M/s Bajrar • T.K. STEEL ROLLING MILLS, LUDHIANA, PUNJAB 5. M/s • DHIMAN INDUSTRIES PVT. LTD., Ispat Pvt. Ltd MANDI GOBINDGARH, Gujarat PUNJAB 6. M/s Premie	A.P. of units, duu ADARSH ISPAT PVT. ITD., DURG, 1. M/s Sh CHATTISGARH Steel, Ludhia MONGIA STEEL LTD., 2. M/s Ashok S GIRIDIH, JHARKHAND Industries, M.P.K. STEEL (1) PVT. Mandi LTD., JAIPUR, Gobindgarh RAJASTHAN 3. M/s Real IS • LAKSMI STEEL & POwer L ROLLING MILLS, Raipur KHANNA, PUNJAB 4. M/s Bajr • T.K. STEEL ROLLING Power & IS MILLS, LUDHIANA, Ltd., Raipur PUNJAB 5. M/s • DHIMAN Someshwar INDUSTRIES PVT. LTD., Ispat Pvt. L	A.P. A.P. ADARSH ISPAT PVT. I. M/s Shar Steel, Ludhiana MONGH, JHARKAND MOSH, JHARKAND Industries, M/s Ashok Ste GIRIDH, JHARKAND M.P.K. STEEL (I) PVT. LTD., JAIPUR, Gobindgarh RAJASTHAN J. M/s Ashok Ste Industries, MAdi LTD., JAIPUR, Gobindgarh RAJASTHAN J. M/s Real Ispa LAKSMI STEEL ROLLING MILLS, Raipur KHANNA, PUNJAB J. M/s Bajrar POwer & Ispa MILLS, LUDHIANA, Ltd., Raipur KHANNA, PUNJAB Someshwar							
Indicator 7 No activity to Three study tours       VISHAKAPATNAM,     the following 6 nos.       A.P.     of units, during       • ADARSH ISPAT PVT.     reporting period:       • ADARSH ISPAT PVT.     Treporting period:       • ADARSH ISPAT PVT.     Steel, Ludhiana       • MONGIA STEEL LTD.,     2.       • MONGIA STEEL LTD.,     2.       • MP.K. STEEL (I) PVT.     Mandi       • MP.K. STEEL (I) PVT.     Madi       • MP.K. STEEL (I) PVT.     Gobindgarh       RAJASTHAN     3.     M/s Real Ispat       • LAKSMI STEEL     & Power Ltd.       ROLLING MILLS,     Raipur       KHANNA, PUNJAB     4.     M/s Bajrang       • T.K. STEEL ROLLING     Power & Ispat       • DHIMAN     Someshwar       INDUSTRIES PVT. LTD.,     Ispat Pvt. Ltd.,       • MS Premier     Barattd., Jaipur       • Barstid., Jaipur     6.	VISHAKAPATNAM, the following 6 no of units, durin eADARSH ISPAT PVT. LTD., DURG, 1. M/s Shar CHATTISGARH Steel, Ludhiana eMONGIA STEEL LTD., GIRIDIH, JHARKHAND eM.P.K. STEEL (I) PVT. LTD., JAIPUR, Gobindgarh RAJASTHAN 3. M/s Real Ispa e LAKSMI STEEL ROLLING MILLS, Raipur KHANNA, PUNJAB 4. M/s Bajara • T.K. STEEL ROLLING MILLS, LUDHIANA, Ltd., Raipur VISHAKAPATY Bajara Power & Ispa MILLS, LUDHIANA, Ltd., Raipur PUNJAB 5. M/s oDHIMAN Someshwar INDUSTRIES PVT. LTD., Ispat Pvt. Ltd. MANDI GOBINDGARH, Gujarat	VISHAKAPATNAM, the following 6 r A.P. of units, dur • ADARSH ISPAT PVT. reporting period LTD., DURG, 1. M/s Sh CHATTISGARH • MONGIA STEEL LTD., 2. M/s Ashok S GIRIDIH, JHARKHAND • M.P.K. STEEL (I) PVT. Mandi LTD., JAIPUR, Gobindgarh 8. LAKSMI STEEL ROLLING MILLS, Raipur KHANNA, PUNJAB • T.K. STEEL ROLLING MILLS, LUDHIANA, Ltd., Raipur PUNJAB • DHIMAN INDUSTRIES PVT. LTD., Ispat Pvt. L	VISHAKAPATNAM, the following 6 no of units, durin • ADARSH ISPAT PVT. ITD., DURG, 1. M/s Shar CHATTISGARH • MONGIA STEEL LTD., GIRIDIH, JHARKHAND Industries, • M.P.K. STEEL (I) PVT. UTD., JAIPUR, Gobindgarh RAJASTHAN • LAKSMI STEEL ROLLING MILLS, UDPHIANA, UT, Raipur • LAKSMI STEEL ROLLING MILLS, UDPHIANA, UT, Raipur • T.K. STEEL ROLLING MILLS, LUDPHIANA, UT, Raipur • Dower & Ispa • T.K. STEEL ROLLING MILLS, LUDPHIANA, UT, Raipur							
<ul> <li>PRODUCTS LTD., USHAKAPATNAM, A.P.</li> <li>ADARSH ISPAT PVT.</li> <li>Freeorting period:</li> <li>LTD., DURG, I.TD., UNGG, Steel, LUdhiana</li> <li>MONGIA STEEL, LDD., GIRIDH, JHARKHAND</li> <li>MONGIA STEEL, (I) PVT.</li> <li>MARDI</li> <li>MS Sharu</li> <li>GRIDH, JHARKHAND</li> <li>MS Sharu</li> <li>MS Seal Ispat</li> <li>MS Bajrang</li> <li>T.K. STEEL CULING</li> <li>MS Bajrang</li> <li>T.K. STEEL STELL TD., Someshwar</li> <li>INDUSTRIES PVT. LTD., MANDI GOBINDGARH, PUNJAB</li> <li>MS Premier</li> <li>Bars Ltd., Jajpur</li> </ul>	PRODUCTS LTD., been conducted i VISHAKAPATNAM, the following 6 no A.P. of units, durin reporting period: LTD., DURG, 1. M/s Shar CHATTISGARH STEEL LTD., GIRIDH, JHARKHAND Industries, M.P.K. STEEL (I) PVT. Mandi LTD., JAIPUR, Gobindgarh RAJASTHAN 3. M/s Real Ispa • LAKSMI STELL ROLLING MILLS, Raipur KHANNA, PUNJAB 4. M/s Bajrar PUNJAB 5. M/s • DHIMAN Someshwar INDUSTRIES PVT. LTD., MANDI GOBINDGARH, Gujarat	PRODUCTS LTD., VISHAKAPATNAM,been conducted the following 6 r A.P.A.P.of units, du eporting period LTD., DURG,1. M/s Steel, LudhiaMONGIA STEEL LTD., GIRIDIH, JHARKHAND2. M/s Ashok S Industries, M.P.K. STEEL (I) PVT.Mandi LTD., JAIPUR, RAJASTHAN3. M/s Real Is B Power L ROLLING MILLS, Raipur KHANNA, PUNJABH. M/s Big T.K. STEEL ROLLING4. M/s Bajr Power & Is MILLS, LUDHIANA, PUNJABH. M/s Someshwar INDUSTRIES PVT. LTD.,5. M/s Someshwar	PRODUCTS LTD., been conducted in VISHAKAPATNAM, the following 6 no A.P. of units, durin • ADARSH ISPAT PVT. reporting periodi LTD., DURG, 1. M/s Shar CHATTISGARH Steel, Ludhiana • MONGIA STEEL LTD., OMNGIA STEEL LTD., 2. M/s Ashok Stee GIRIDIH, JHARKHAND Industries, • M.P.K. STEEL (1) PVT. Mandi LTD., JAIPUR, Gobindgarh RAJASTHAN 3. M/s Real Ispa • LAKSMI STEEL & Power Ltd ROLLING MILLS, Raipur KHANNA, PUNJAB 4. M/s Bajrar • T.K. STEEL ROLLING Power & Ispa MILLS, LUDHIANA, Ltd., Raipur VUNJAB 5. M/s							
<ul> <li>SUJANA METAL programmes has been conducted in VISHAKAPATNAM, A.P. VISHAKAPATNAM, A.P. VISHAKAPATNAM, A.DARSH ISPAT PVT. Exporting period: LTD., DURG, 1. M/s Steel, Ludhiana</li> <li>MONGIA STEEL ITD., GRIDIH, JHARKHAND - M.P.K. STEEL (I) PVT. LTD., JAIPUR, Gobindgarh RAJASTHAN 3. M/s Real Ispat</li> <li>LAKSMI STEEL</li> <li>LOHINAN 5. M/s Bajrang</li> <li>T.K. STEEL ROLLING MILLS, KHANNA, LIG, Raipur</li> <li>KHANNA, PUNJAB</li> <li>M/s Someshwar</li> <li>INDUSTRIES PVT. LTD., MA/s Bajrang</li> <li>T.K. STEEL ROLLING MILLS, KHANNA, LIG, Raipur</li> <li>KHANNA, PUNJAB</li> <li>M/s Someshwar</li> <li>Someshwar</li> <li>Someshwar</li> <li>Bars Ltd., Jaipur</li> <li>M/s Premiet</li> <li>Bars Ltd., Jaipur</li> <li>Mandi Gobindgarh</li> <li>Bars Ltd., Jaipur</li> </ul>	<ul> <li>SUJANA METAL programmes has producted in VISHAKAPATNAM, the following 6 no on VISHAKAPATNAM, the following 6 no on A.P.</li> <li>ADARSH ISPAT PVT. reporting period:</li> <li>LTD., DURG, 1. M/s Shar CHATTISGARH Steel, Ludhiana</li> <li>MONGIA STEEL LTD., 2. M/s Ashok Steel, ILUdhiana</li> <li>M.P.K. STEEL (I) PVT. Mandi Industries, M.P.K. STEEL (I) PVT. Mandi LTD., JAIPUR, Gobindgarh RAJASTHAN</li> <li>M/s Rajaur</li> <li>A.ASMI STEEL &amp; &amp; Power Ltd ROLLING MILLS, W/s Bajara</li> <li>T.K. STEEL ROLLING POwer &amp; Ispa</li> <li>M.K. STEEL ROLLING POwer &amp; Ispa</li> <li>T.K. STEEL ROLLING POwer &amp; Ispa</li> <li>M.M.RANDA, PUNJAB</li> <li>M/s Bajarat</li> <li>T.K. STEEL ROLLING Someshwar INDUSTRIES PVT. LTD., Ispat Pvt. Ltd MANDI GOBINDGARH, Gujarat</li> <li>PUNJAB</li> <li>M/s Premide</li> </ul>	<ul> <li>SUJANA METAL Programmes</li> <li>PRODUCTS LTD., been conducted</li> <li>VISHAKAPATNAM, the following 6 m</li> <li>A.P.</li> <li>Of units, dum</li> <li>ADARSH ISPAT PVT.</li> <li>Propring period</li> <li>LTD., DURG,</li> <li>M/s Sh</li> <li>CHATTISGARH</li> <li>MONGIA STEEL LTD.,</li> <li>GiRIDIH, JHARKHAND</li> <li>Molustries,</li> <li>M.P.K. STEEL (I) PVT.</li> <li>Industries,</li> <li>M/s Real Is</li> <li>LAKSMI STEEL</li> <li>&amp; Power L</li> <li>RAJASTHAN</li> <li>M/s Bajr</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Is</li> <li>MILLS, LUDHIANA,</li> <li>Ltd., Raipur</li> <li>YKHANNA,</li> <li>KASP</li> <li>MILS, Steel ROLLING</li> <li>Power &amp; Is</li> <li>MILLS, LUDHIANA,</li> <li>Ltd., Raipur</li> <li>PUNJAB</li> <li>M/s</li> <li>M/s</li> </ul>	<ul> <li>SUJANA METAL programmes ha been conducted it vishakapatnam, the following 6 no of units, durin e ADARSH ISPAT PVT.</li> <li>ADARSH ISPAT PVT.</li> <li>Popoting period:</li> <li>LTD., DURG,</li> <li>M. M.S. Steel, Ludhiana</li> <li>MONGIA STEEL LTD.,</li> <li>M.P.K. STEEL (I) PVT.</li> <li>Mandi</li> <li>LTD., JAIPUR,</li> <li>Gobindgarh</li> <li>RAJASTHAN</li> <li>MS Real Ispa</li> <li>LAKSMI STEEL</li> <li>Power Ltd</li> <li>ROLLING MILLS,</li> <li>KHANNA, PUNJAB</li> <li>M/s Bajrar</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispa</li> <li>Mills, LUDHIANA,</li> <li>Ltd., Raipur</li> <li>PUNJAB</li> <li>M/s</li> </ul>							
MAHARASHTRA SUJANA METAL PRODUCTS LTD., VISHAKAPATNAM, A.P. • ADARSH ISPAT PVT. LTD., DURG, LTD., DURG, CHATTISGARH • MONGIA STEEL LTD., CHATTISGARH • MONGIA STEEL TD., CHATTISGARH • MONGIA STEEL TD., CHATTISGARH • MONGIA STEEL TD., CHATTISGARH • MONGIA STEEL TD., • M/S Sharu • CHATTISGARH • MONGIA STEEL TD., • M/S Sharu • MONGIA STEEL TD., • M/S Sharu • CHATTISGARH • MONGIA STEEL TD., • M/S Bajarag • T.K. STEEL ROLLING • M/S Bajarag • M/S Premier • Bas Itd., Jajour • Bas	MAHARASHTRA SUJANA METAL programmes ha pRODUCTS LTD., UISHAKAPATNAM, the following 6 no A.P. of units, durin reporting period: LTD., DURG, LTD., DURG, CHATTISGARH MONGIA STEEL LTD., M/S Ashok Steed, Lutchiana MONGIA STEEL LTD., MAK, STEEL (I) PVT. Mandi LTD., JAIPUR, Gobindgarh RAJASTHAN 3. M/S Real Ispa Obiogramh A.M.S TEEL RULING N/S Real Ispa Obiogramh A.M.S TEEL RULING N/S Real Ispa T.K. STEEL ROLLING MILLS, LUDHIANA, PUNJAB 5. M/S Obiogramh A.M.S MISTEL CHATTISGARH CHATTISCARH CHATTISCARH CHATTISCARH CHATTISCARH CHATTISCARH CHA	MAHARASHTRA MAHARASHTRA SUJANA METAL Programmes PRODUCTS LTD., been conducted VISHAKAPATNAM, A.P. of units, dui • ADARSH ISPAT PVT. reporting period LTD., DURG, CHATTISGARH • MONGIA STEEL LTD., GIRIDIH, JHARKHAND Industries, • M.P.K. STEEL (I) PVT. LTD., JAIPUP, Gobindgarh RAJASTHAN 3. M/s Real IS • LAKSMI STEEL & Power L ROLLING MILLS, KHANNA, PUNJAB • T.K. STEEL ROLLING MILLS, LUDHIANA, LTd., Raipur PUNJAB • DHIMAN Someshwar INDUSTRIES PVT. LTD., Ispat Pvt. L	MAHARASHTRA Training (PITS SUJANA METAL programmes ha been conducted i VISHAKAPATNAM, the following 6 no A.P. of units, durin • ADARSH ISPAT PVT. reporting period: LTD., DURG, 1. M/s Shar CHATTISGARH 2. M/s Ashok Ste Industries, • MONGIA STEEL LTD., GIRDIH, JHARKHAND Industries, • M.P.K. STEEL (1) PVT. Mandi LTD., JAIPUR, Gobindgarh RAJASTHAN 3. M/s Real Ispa • LAKSMI STEEL & & Power Ltd ROLLING MILLS, Raipur KHANNA, PUNJAB 4. M/s Bajran • T.K. STEEL COLLING MILS, LUDHIANA, Ltd., Raipur PUNJAB 5. M/s • DHIMAN 50meshwar							
<ul> <li>UDYOG, NAGPUR, MAHARASHTRA</li> <li>Improvement Training (PTS)' • SUJANA METAL</li> <li>Programmes has been conducted in VISHAKAPATNAM, A.P.</li> <li>ADARSH ISPAT PVT.</li> <li>reporting period:</li> <li>LTD., DURG,</li> <li>M/s Shart CHATTISGARH</li> <li>M/s Ashch Steet Industries,</li> <li>M/s Rail spa • LAKSMI STEEL</li> <li>M/s Bairang • T.K. STEEL ROLLING</li> <li>M/s Bairang • DHIMAN</li> <li>Somestiwar</li> <li>Somestiwar</li> <li>Somestiwar</li> <li>Somestiwar</li> <li>Somestiwar</li> <li>Bairang • DHIMAN</li> <li>By Prower &amp; Ispa • DHIMAN</li> <li>By Prower Ltd., MANDI GOBINDGARH, PUNJAB</li> <li>M/s Premie</li> <li>Bars Ltd., Jaipur</li> </ul>	UDYOG, NAGPUR, MAHARASHTRA SUJANA METAL Programmes ha PRODUCTS LTD., been conducted VISHAKAPATNAM, the following 6 no of units, durin reporting periodi: LTD., DURG, LTD., DURG, I. M/s Shar CHATTISGARH Steel, Ludhiara • MONGIN STEEL LTD., GiRIDIH, JHARKHAND INJURR, GIRIDIH, JHARKHAND • M.P.K. STEEL (I) PVT. Mandi LTD., JAIPUR, Gobindgarh RAJASTHAN S. M/s Real Ispa • LAKSMI STEEL ROLLING MILLS, UDHIANA, ULS, UDHIANA, JUNAB • DHIMAN Someshwar INDUSTRIES PVT. LTD., ISPA PVT. LTD., JINDUSTRIES PVT. LTD.,	UDYOG, NAGPUR, Improvement MAHARASHTRA SUJANA METAL ProDUCTS LTD., been conducted VISHAKAPATNAM, the following 6 A.P. of units, du • ADARSH ISPAT PVT. reporting period LTD., DURG, I. M/s Sh CHATTISGARH • MONGIA STEEL LTD., GIRIDIH, JHARKHAND • M.P.K. STEEL (I) PVT. UTD., JAIPUR, GObindgarh RAJASTHAN 3. M/s Real IS • LAKSMI STEEL ROLLING MILLS, ROLLING MILLS, RAIDY HIMAN, PUNJAB • DMHMAN Someshwar INDUSTRIES PVT. LTD., ISPAT PVT. LTD., Someshwar	UDYOG, NAGPUR, Improvement Training (PITS • SUJANA METAL Programmes ha PRODUCTS LTD., VISHAKAPATNAM, A.P. • Of units, durir • ADASH ISPAT PVT. • reporting period: LTD., DURG, (I.T., M/s Shar CHATTISGARH • MONGIA STEEL LTD., GIRIDIH, JHARKHAND • M.P.K. STEEL (I) PVT. LTD., JAIPUR, Gobindgarh RAJASTHAN 3. M/s Real Ispa • LAKSMI STEEL ROLLING MILLS, KHANNA, PUNJAB • T.K. STEEL ROLLING MIS. UDYOG, NAGPUR, • Improvement MARARASHTRA • MONGIA STEEL ROLLING MILLS, LUDHIANA, Ltd., Raipur PUNJAB • DHIMAN Someshwar							c) "Performance
<ul> <li>MAHALAXMI DHATU</li> <li>C) "Performance Improvement</li> <li>MAHARASHTRA</li> <li>Training (PITS)</li> <li>SUJANA METAL</li> <li>programmes has been conducted in</li> <li>VISHARAPATNAM,</li> <li>the following 6 nos</li> <li>A.P.</li> <li>ADARSH ISPAT PVT.</li> <li>Terporting period:</li> <li>TAS shark Steel, Ludhiana</li> <li>MONGIA STEEL LTD.,</li> <li>M/s Scher, Steel, Ludhiana</li> <li>MONGIA STEEL LTD.,</li> <li>M/s Scher, Steel, Ludhiana</li> <li>MONGIA STEEL LTD.,</li> <li>M/s Scher, Steel, RULING MILS,</li> <li>KASMI STEEL</li> <li>M/s Bairang</li> <li>M/s Premie</li> <li>Buryang</li> <li>M/s Pr</li></ul>	<ul> <li>MAHALAXMI DHATU</li> <li>C) "Performance Improvement</li> <li>MAHARASHTRA</li> <li>Training (PITS SUJANA METAL Propurames he PRODUCTS LTD,</li> <li>been conducted i</li> <li>VISHAKAPATNAM,</li> <li>the following 6 no A.P.</li> <li>ADARSH ISPAT PVT.</li> <li>reporting period:</li> <li>LTD., DURG,</li> <li>M/S Shar Steel, Ludhiana</li> <li>MONGIA STEEL LTD.,</li> <li>GIRIDIH, JHARKHAND</li> <li>MMS Ashok Steel</li> <li>GIRIDIH, JHARKHAND</li> <li>M.Y. STEEL (IPVT.</li> <li>RAJASTHAN</li> <li>M/S Real Ispathan</li> <li>M/S Bajran</li> <li>T.K. STEEL ROLLING</li> <li>POWER &amp; Ispathan</li> <li>MANDI GOBINDGARH, Gujarat</li> <li>PUNJAB</li> <li>M/S PUNAB</li> <li>M/S PUNAB<!--</td--><td><ul> <li>MAHALAXMI DHATU</li> <li>c) "Performance UDYOG, NAGPUR, MAHARASHTRA</li> <li>Training (PI SUJANA METAL</li> <li>programmes PRODUCTS LTD.,</li> <li>been conducted VISHAKAPATNAM,</li> <li>the following 6 r</li> <li>A.P.</li> <li>of units, dut</li> <li>ADARSH ISPAT PVT.</li> <li>reporting period</li> <li>LTD., DURG,</li> <li>I. M/s Sh</li> <li>CHATTISGARH</li> <li>Steel, Ludhia</li> <li>MONGIA STEEL LTD.,</li> <li>GIRIDIH, JHARKHAND</li> <li>Industries,</li> <li>M.P.K. STEEL (I) PVT.</li> <li>Mandi</li> <li>LTD., JAIPUR,</li> <li>GOBindgarh</li> <li>RAJASTHAN</li> <li>M/s Bajr</li> <li>T.K. STEEL COLLING</li> <li>POwer &amp; IS</li> <li>MILLS, LUDHIANA,</li> <li>Ltd., Raipur</li> <li>PUNJAB</li> <li>M/s Bajr</li> <li>T.K. STEEL COLLING</li> <li>POwer &amp; IS</li> <li>MILLS, LUDHIANA,</li> <li>Ltd., Raipur</li> <li>PUNJAB</li> <li>M/s</li> <li>Someshwar</li> <li>INDUSTRIES PVT. LTD.,</li> <li>Ispat Pvt. L</li> </ul></td><td><ul> <li>MAHALAXMI DHATU</li> <li>C) "Performance Improvement</li> <li>MAHARASHTRA</li> <li>Training (PITs - SUJJANA METAL</li> <li>programmes ha PRODUCTS LTD.,</li> <li>been conducted in VISHAKAPATNAM,</li> <li>the following 6 no A.P.</li> <li>of units, durin</li> <li>ADARSH ISPAT PVT.</li> <li>reporting period:</li> <li>LTD., DURG,</li> <li>M/s Shar CHATTISGARH</li> <li>Steel, Ludhiana</li> <li>MONGIA STEEL (I) PVT.</li> <li>Madustries,</li> <li>MASANS Steel, I) PVT.</li> <li>Madustries,</li> <li>MASANS Steel, I) PVT.</li> <li>Mandii</li> <li>LTD., JAIPUR,</li> <li>Gobindgarh</li> <li>RAJASTHAN</li> <li>M/s Railspur</li> <li>KHANNA, PUNJAB</li> <li>M/s Bajrar</li> <li>T.K. STEEL ROLLING</li> <li>POWER &amp; Ispar</li> <li>PUNJAB</li> <li>M/s Asiny</li> </ul></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></li></ul>	<ul> <li>MAHALAXMI DHATU</li> <li>c) "Performance UDYOG, NAGPUR, MAHARASHTRA</li> <li>Training (PI SUJANA METAL</li> <li>programmes PRODUCTS LTD.,</li> <li>been conducted VISHAKAPATNAM,</li> <li>the following 6 r</li> <li>A.P.</li> <li>of units, dut</li> <li>ADARSH ISPAT PVT.</li> <li>reporting period</li> <li>LTD., DURG,</li> <li>I. M/s Sh</li> <li>CHATTISGARH</li> <li>Steel, Ludhia</li> <li>MONGIA STEEL LTD.,</li> <li>GIRIDIH, JHARKHAND</li> <li>Industries,</li> <li>M.P.K. STEEL (I) PVT.</li> <li>Mandi</li> <li>LTD., JAIPUR,</li> <li>GOBindgarh</li> <li>RAJASTHAN</li> <li>M/s Bajr</li> <li>T.K. STEEL COLLING</li> <li>POwer &amp; IS</li> <li>MILLS, LUDHIANA,</li> <li>Ltd., Raipur</li> <li>PUNJAB</li> <li>M/s Bajr</li> <li>T.K. STEEL COLLING</li> <li>POwer &amp; IS</li> <li>MILLS, LUDHIANA,</li> <li>Ltd., Raipur</li> <li>PUNJAB</li> <li>M/s</li> <li>Someshwar</li> <li>INDUSTRIES PVT. LTD.,</li> <li>Ispat Pvt. L</li> </ul>	<ul> <li>MAHALAXMI DHATU</li> <li>C) "Performance Improvement</li> <li>MAHARASHTRA</li> <li>Training (PITs - SUJJANA METAL</li> <li>programmes ha PRODUCTS LTD.,</li> <li>been conducted in VISHAKAPATNAM,</li> <li>the following 6 no A.P.</li> <li>of units, durin</li> <li>ADARSH ISPAT PVT.</li> <li>reporting period:</li> <li>LTD., DURG,</li> <li>M/s Shar CHATTISGARH</li> <li>Steel, Ludhiana</li> <li>MONGIA STEEL (I) PVT.</li> <li>Madustries,</li> <li>MASANS Steel, I) PVT.</li> <li>Madustries,</li> <li>MASANS Steel, I) PVT.</li> <li>Mandii</li> <li>LTD., JAIPUR,</li> <li>Gobindgarh</li> <li>RAJASTHAN</li> <li>M/s Railspur</li> <li>KHANNA, PUNJAB</li> <li>M/s Bajrar</li> <li>T.K. STEEL ROLLING</li> <li>POWER &amp; Ispar</li> <li>PUNJAB</li> <li>M/s Asiny</li> </ul>							
MAHARASHTRA • MAHALAXMI DHATU UDYOG, NAGPUR, • SUJANA METAL Propurames • SUJANA METAL Propuration • SUJANA METAL Propuration • SUJANA METAL Propuration • SUJANA METAL Propuration • SUJANA METAL Propuration • SUJANA METAL • SOMESHWAT • SUJANA METAL • SUJANA METAL • SOMESHWAT • SUJANA METAL • SOMESHWAT • SUJANA METAL • SOMESHWAT • SUJANA METAL • M/S • SUJANA METAL • SOMESHWAT • SUJANA METAL • M/S • SUJANA METAL • M/S • SUJANA • M/S • SUJANA METAL • SOMESHWAT • SUJANA • M/S • M/S • SUJANA • M/S • SUJANA • SOMESHWAT • SOMESHWAT • SOMESHWAT • SUJANA • SOMESHWAT •	MAHARASHTRA • MAHALASMI DHATU UDVOG, NAGPUR, MAHARASHTRA • SUJANA METAL programmes hi PRODUCTS LTD, been conducted i VISHAKAPATNAM, the following 6 no A.P. • ADARSH ISPAT PVT. • DURG, 1. M/s Shar CHATTISGARH • MONGIA STEELLTD, • MONGIA STEELLTD, • M.P.K. STEEL (1) PVT. ITD, JURG, • M.P.K. STEEL (1) PVT. ITD, JURUR, • M.P.K. STEEL (1) PVT. IDD, JAIPUR, • M.P.K. STEEL (1) PVT. • MAHANIA, PUNJAB • M/S Real ISPA • LAKSMI STEEL • A M/s Bajrar • T.K. STEEL ROLLING • M.P.K. STEEL ROLLING • DHIMAN • DHIMAN • M/S POWER & ISPA • DHIMAN • DHIMAN • DHIMAN • DHIMAN • DHIMAN • DHIMAN • M/S POWER & ISPA • DHIMAN • DHIM	MAHARASHTRA • MAHALAXMI DHATU UDYOG, NAGPUR, SUJANA METAL PRODUCTS LTD., been conducted VISHAKAPATNAM, the following for A.P. of units, du • ADARSH ISPAT PVT. ITD., DURG, LTD., JAIPUR, Gobindgarh RAJASTHAN 3. M/s Bajr • T.K. STELL ROLLING PUNJAB 4. M/s Bajr • T.K. STEL ROLLING PUNJAB 5. M/s • DHIMAN Someshwar INDUSTRIES PVT. LTD., ISPAT PVT. TD., ISPAT PVT.	MAHARASHTRA MAHALAXMI DHATU UDYG, NAGPUR, MAHARASHTRA MAHALAXMI DHATU UDYG, NAGPUR, MAHARASHTRA Training (PITS SUJANA METAL PRODUCTS LTD., SUJANA METAL PRODUCTS LTD., been conducted VISHAKAPATNAM, the following 6 no A.P. ADARSH ISPAT PVT. LTD., JURG, LTD., DURG, CHATTISGARH MAHARASHTRA MONGIA STEEL LTD., I. M/S Shar CHATTISGARH MAHARASHTRA MONGIA STEEL LTD., GRIDIH, JHARKHAND MAHARASHTRA MAHALASHTRA MONGIA STEEL (I) PVT. Mandi LTD., JAIPUR, Gobindgarh RAJASTHAN M/S Real Ispa PUNJAB MILLS, LUDHIANA, PUNJAB MILLS, LUDHIANA, PUNJAB Someshwar							
LTD., NAGPUR, MAHARASHTRA • MAHALAXNI DHATU UDYOG, NAGPUR, MAHARASHTRA • MAHARASHTRA • MAHARASHTRA • MAHARASHTRA • MAHARASHTRA • SUJANA METAL PRODUCTS ITD., VISHAKAPATNAM, A.P. • ADARSH ISPAT PVT. ITD., DURG, • ADARSH ISPAT PVT. ITD., DURG, • ADARSH ISPAT PVT. ITD., DURG, • M.P.K. STEEL (1) PVT. ITD., JAIPUR, RAJASTHAN • MONGIA STEEL • MONGIA STEEL ITD., • M.P.K. STEEL (1) PVT. • M.P.K. STEEL (1) PVT. • M.P.K. STEEL (1) PVT. • MAHARASHTRA • MONGIA STEEL TD., • M.P.K. STEEL (1) PVT. • M.P.K. STEEL (1) PVT. • M.P.K. STEEL (1) PVT. • MAHARASHTAN • M.Y. STEEL (1) PVT. • MAHARASHTAN • MAHARASHTAN • MAHARASHTAN • M.Y. STEEL (1) PVT. • MAHARASHTAN • MAHARASHTAN • MAHARASHTAN • MAHARASHTAN • MAHARASHTAN • M.Y. STEEL (1) PVT. • MAHARASHTAN • MAHARASHTAN • M.Y. STEEL (1) PVT. • MAHARASHTAN • MAHARASHTAN • MAHARASHTAN • MAHARASHTAN • MAHARASHTAN • MAHARASHTAN • MAHARASHTAN • M.Y. STEEL • MAHARASHTAN • MAHA	LTD., NAGPUR, MAHALAXMI DHATU () "Pert Ltd., Kolkata MAHALAXMI DHATU () "Performance UDVOG, NAGPUR, MAHALAXMI DHATU () "Performance MAHALAXMI DHATU () "Performance UDVOG, NAGPUR, MAHALAXMI DHATU () "Performance MAHALAXMI DHATU () "Performance MILS, LUDHIANA, PUNJAB () M/s Bajrar Nobel Nobel Nobel () "Performance MILS, LUDHIANA, PUNJAB () M/s Permite PUNJAB () M/s PUNJAB () M/s Permite PUNJAB () M/s Permite PUNJAB () M/s Permite PUNJAB () M/s Permite PUNJAB () M/s PUNJAB () M/s Permite PUNJAB () M/s PUNJAB () M/s PUN	LTD., NAGPUR, MAHARASHTRA • MAHALAXMI DHATU UDYOG, NAGPUR, MAHARASHTRA • SUJANA METAL PRODUCTS LTD., VISHAKAPATNAM, • ADARSH ISPAT PVT. LTD., DURG, I. M/s Sh CHATTISGARH • MONGIA STEEL LTD., GIRIDH, JHARKHAND • MONGIA STEEL LTD., GIRIDH, JHARKHAND • M.P.K. STEEL (I) PVT. Mandi LTD., JAIPUR, RAJASTHAN • AJASTHAN • MARKHAND • M.P.K. STEEL (I) PVT. Mandi UTD., JAIPUR, RAJASTHAN • AJASTHAN • AJAST	LTD., NAGPUR, MAHARASHTRA • MAHALAXMI DHATU UDYOG, NAGPUR, MAHARASHTRA • MAHALAXMI DHATU UDYOG, NAGPUR, MAHARASHTRA • SUJANA METAL PRODUCTS LTD., VISHAKAPATNAM, A.P. • ADARSH ISPAT PVT. LTD., DURG, LTD., DURG, CHATTISGARH • MAS Steel, Ludhiana • MONGINS STEEL LTD., GIRIDIH, JHARKHAND • M.P.K. STEEL (I) PVT. LTD., JAIPUR, GIRIDIH, JHARKHAND • M.P.K. STEEL (I) PVT. Mandi LTD., JAIPUR, GOWER LTD., W/S Real ISPA • LAKSMI STEEL ROLLING MILLS, WAS BAJASTHAN • LAKSMI STEEL ROLLING MILLS, UDHIANA, PUNJAB • DHIMAN Someshwar						•	
<ul> <li>RAMSONS TMT (P)</li> <li>Bengal Hammers</li> <li>Di Bengal Hammers</li> <li>Performance</li> <li>UDYOG, NAGPUR,</li> <li>MAHALASHTRA</li> <li>MAHALASHTRA</li> <li>MAHALASHTRA</li> <li>MAHALASHTRA</li> <li>MAHALASHTRA</li> <li>SUJANA METAL</li> <li>Performance</li> <li>UDYOG, NAGPUR,</li> <li>MAHALASHTRA</li> <li>SUJANA METAL</li> <li>Propuctrs LTD,</li> <li>VISHAKAPATNAM,</li> <li>the following 6 nos</li> <li>A.D.RSH ISPAT PVT.</li> <li>LTD, DURG,</li> <li>I. M/s Shart</li> <li>Steel, Ludhiana</li> <li>MONGAS TEEL LTD,</li> <li>M/s Ashok Stee</li> <li>Gobindgarh</li> <li>Industries,</li> <li>Markinski STEEL</li> <li>M/s Bajrang</li> <li>Power &amp; Ispal</li> <li>M/s Bajrang</li> <li>Power &amp; Ispal</li> <li>MASH STEEL VID, VID,</li> <li>M/s Bajrang</li> <li>Power &amp; Ispal</li> <li>MASH STEEL VID, TUD,</li> <li>M/s Bajrang</li> <li>Power &amp; Ispal</li> <li>MASH STEEL VID, VID</li> <li>Three study tours</li> <li>Four workshops on</li> <li>Not planned.</li> <li>a) 2</li> <li>nos. oi</li> </ul>	<ul> <li>RAMSONS TMT (P) LTD., NAGPUR, MAHARASHTRA</li> <li>MAHALAXMI DHATU UDYOG, NAGPUR, MAHARASHTRA</li> <li>MAHALAXMI DHATU UDYOG, NAGPUR, MAHARASHTRA</li> <li>SUJANA METAL PRODUCTS LTD., VISHAKAPATNAM, A.P.</li> <li>ADARSH ISPAT PVT. LTD., DURG, CHATTISGARH</li> <li>M/S Shark</li> <li>M/S Shark</li> <li>M/S Shark</li> <li>M/S Real Ispy (GiRIDH, JHARKHAN)</li> <li>M/S Real Ispy (GiRIDH, JHARKHAN)</li> <li>M/S Real Ispy (GiRIDH, JHARKHAN)</li> <li>M/S Real Ispy (LAKSMI STEEL RAJASHAN</li> <li>M/S RAJASHAN</li> &lt;</ul>	<ul> <li>RAMSONS TMT (P)</li> <li>Bengal Hamm</li> <li>D. Bengal Hamm</li> <li>Prt. Ltd., Kölka</li> <li>MAHARASHTRA</li> <li>MAHARASHTRA</li> <li>MAHARASHTRA</li> <li>MAHARASHTRA</li> <li>Training (PI)</li> <li>SUJANA METAL</li> <li>programmes</li> <li>PRODUCTS LTD.,</li> <li>been conducted</li> <li>VISHAKAPATNAM,</li> <li>the following 6 ri</li> <li>A.P.</li> <li>of units, du</li> <li>ADARSH ISPAT PVT.</li> <li>I. M/s Shok S</li> <li>GIRIDIH, JHARKHAND</li> <li>MOSIGA STEEL LIO,</li> <li>MASHASHAN</li> <li>Madi</li> <li>MOSIGA STEELL (I) PVT.</li> <li>LTD., JAIPUR,</li> <li>Gobindgarh</li> <li>RAJASTHAN</li> <li>M/s Real IS</li> <li>AKSMI STEEL</li> <li>ROPWER LIONA</li> <li>WASHARA</li> <li></li></ul>	<ul> <li>RAMSONS TMT (P)</li> <li>10. Bengal Hammei</li> <li>LTD., NAGPUR,</li> <li>MAHARASHTRA</li> <li>MAHALAXMI DHATU</li> <li>UDYOG, NAGPUR,</li> <li>MAHARASHTRA</li> <li>C) "Performance</li> <li>Improvement</li> <li>MAHARASHTRA</li> <li>SUJANA METAL</li> <li>PRODUCTS LTD.,</li> <li>USHAKAPATNAM,</li> <li>The following 6 no</li> <li>A.P.</li> <li>ADARSH ISPAT PVT.</li> <li>RADASH ISPAT PVT.</li> <li>reporting period:</li> <li>LTD., JURG,</li> <li>M/s Shah</li> <li>Steel, Ludhiana</li> <li>MASTELL TD.,</li> <li>Maria</li> <li>MASTEL LTD.,</li> <li>Maria</li> <li>MASTEL LTD.,</li> <li>Maria</li> <li>MASTEL LTD.,</li> <li>Maria</li> <li>M/s Ashok Steel</li> <li>Industries,</li> <li>M/s Real Ispat</li> <li>LAKSMI STEEL</li> <li>M/s Real Ispat</li> <li>LAKSMI STEEL</li> <li>&amp; Power Ltd.</li> <li>RAJASTHAN</li> <li>M/s Real Ispat</li> <li>T.K. STEEL ROLLING</li> <li>Power &amp; Ispat</li> <li>T.K. STEL ROLLING</li> <li>Power &amp; Ispat</li> <li>MILLS, LUDHIANA,</li> <li>ULd, Raipur</li> <li>PUNIAB</li> <li>M/s</li> </ul>							
<ul> <li>period.</li> <li>RAMSONSTMT (P) ITD., NAGPUR, MAHARASHTRA</li> <li>MAHALXMI DHATU UDYG, NAGPUR, MAHARASHTRA</li> <li>MAHALXMI DHATU UDYG, NAGPUR, MAHARASHTRA</li> <li>O' "Performance Improvement Training (PTIS)' VISHAKAPATNAM, A.P.</li> <li>ADARSH ISPAT PVT. ITD., DURG, A.P.</li> <li>ADARSH ISPAT PVT. ITD., DURG, A.P.</li> <li>M/S Shart, Steel, Ludhiana</li> <li>MSAKAPATNAM, A.P.</li> <li>M/S Shart, ITD., JAIPUR, RAJASTHAN</li> <li>M/S Shart, Steel, Ludhiana</li> <li>M/S Real Ispat Indicator 7</li> <li>No activity to Three study tours</li> <li>Four workshops on</li> <li>Not planned.</li> <li>2 no. o'</li> </ul>	Period. Period. Period. Pri	Period. • RAMSONS TMT (P) LTD., NAGPUR, MAHARASHTRA • MAHALAXMI DHATU UDYOG, NAGPUR, MAHARASHTRA • MAHALAXMI DHATU UDYOG, NAGPUR, MAHARASHTRA • MAHALAXMI DHATU UDYOG, NAGPUR, MAHARASHTRA • SUJANA METAL PRODUCTS LTD., VISHAKAPATNAM, A.P. • A.P. • ADARSH ISPAT PVT. LTD., JURG, CHATTISGARH • MONGIA STEEL LTD., GIRDIH, JHARKHAND • M.P.K. STEEL (I) PVT. Mandi • MADSI STEEL LTD., GIRDIH, JHARKHAND • M.P.K. STEEL (I) PVT. Mandi • LAKSMI STEEL & POwer & IB • LAKSMI STEEL & POwer & IB • T.K. STEEL CILING MILLS, LUDHIANA, PUNJAB • M/S • M/S • M/S • M/S • M/S • M/S	Period. Period. Period. Period. PRAMSONS TIM (P) ID. Bangal Hammen PVL Ltd., Kolkata MAHARASHTRA MAHARASHTRA MAHARASHTRA MAHARASHTRA MAHARASHTRA Improvement MAHARASHTRA Training (PITS SUJANA METAL Programmes ha PRODUCTS LTD., been conducted i VISHAKAPATNAM, the following 6 no A.P. ADARSH ISPAT PVT. ITD., DURG, 1. M/s Shar CHATTISGARH MONGIA STEEL LTD., GIRIDH, JHARKHAND M.P.K. STEEL (I) PVT. ITD., JAIPUR, AJASTHAN M/s Real Ispa - LAKSMI STEEL & Power Ltd RolLinks MILLS, LOBHIAN, T.K. STEEL ROLLING MILLS, LOBHIAN, PUNJAB - T.K. STEEL ROLLING MILLS, LOBHIAN, UNAB - DHIMAN Someshwar						<b>-</b>	
<ul> <li>Indicator 7</li> <li>Indicato</li></ul>	during the reporting period. • RAMSONS TMT (P) • ARS Metals Ltd Chennai. • RAMSONS TMT (P) • TD, NAGPUR, • MAHALAXMI DHATU UDYOG, NAGPUR, • SUJANA METAL Programmes h PRODUCTS LTD, VISHAKAPATNAM, A.P. • ADARSH ISPAT PVT. ITD, JURG, I. M/S Shar CHATTISGARH • MAPUR, STEEL ITD, JURG, • M.P.K. STEEL GIRIDIH, JHARKHAND • M.P.K. STEEL ROLLING MILLS, KHANNA, PUNJAB • LAKSMI STEEL ROLLING MILLS, KHANNA, PUNJAB • DHIMAN NINUS GBINDGARH, PUNJAB • DHIMAN	during the reporting period. • RAMSONS TMT (P) ID. Baegal Hamm • RAMSONS TMT (P) ID. Baegal Hamm • RAMSONS TMT (P) ID. NAGPUR, • MAHALAXMI DHATU UDYOG, NAGPUR, • MAHALAXMI DHATU UDYOG, NAGPUR, • MAHALAXMI DHATU UDYOG, NAGPUR, • SUJANA METAL • Proprime • PRODUCTS LTD., • been conducted VISHAKAPATNAM, • He following fr - A.P. • Of units, du • ADARSH ISPAT PVT. • MONGIA STEEL LTD., • MONGIA STEEL LTD., • MONGIA STEEL LTD., • MARA • MAHARASH • MARARAND • M.P.K. STEEL (I) PVT. • MAG • CHATTISGARH • MARKINAND • M.P.K. STEEL (I) PVT. • Mondia • LAKSMI STEEL • A POWER & • MARA • MARA • MARA • MARARAND • M.P.K. STEEL OLLING • MLLS, LUDHIANA, • LAKSMI STEEL • A M/S Bajr • T.K. STEEL ROLLING • MILLS, LUDHIANA, • DHIMAN •	<ul> <li>during the reporting period.</li> <li>RAMSONS TMT (P)</li> <li>RAMSONS TMT (P)</li> <li>Bengal Hammel LTD., NAGPUR,</li> <li>MAHALAXMI DHATU</li> <li>O' "Performance</li> <li>UDYOG, NAGPUR,</li> <li>MAHALAXMI DHATU</li> <li>O' "Performance</li> <li>UDYOG, NAGPUR,</li> <li>Training (PITS</li> <li>SUJANA METAL</li> <li>PRODUCTS LTD.,</li> <li>been conducted i</li> <li>VISHAKAPATNAM,</li> <li>the following 6 no</li> <li>A.P.</li> <li>of units, durin</li> <li>ADARSH ISPAT PVT.</li> <li>Teporting period:</li> <li>LTD., DURG,</li> <li>M.Y.K. STEEL (I) PVT.</li> <li>ITD., JURGARH</li> <li>Steel, Ludhiana</li> <li>MONGIA STEEL LTD.,</li> <li>Mandi</li> <li>Industries,</li> <li>Marin</li> <li>Mongal STEEL (I) PVT.</li> <li>Mandi</li> <li>Industries,</li> <li>Astrina 3. M/s Real Ispa</li> <li>Astrina 4. M/s Bajran</li> <li>T.K. STEEL ROLLING</li> <li>M/s Bajran</li> <li>T.K. STEEL ROLLING</li> <li>M/s Bajran</li> <li>T.K. STEEL ROLLING</li> <li>Power Ltd, Raipur</li> <li>MILLS, LUDHIANA,</li> <li>ULIS, LUDHIANA,</li> <li>ULIS, LUDHIANA,</li> <li>ULIS, LUDHIANA,</li> <li>UNIAB</li> <li>Someshwar</li> </ul>						•••	
Products Ltd. Savings completed during the reporting period. • RAMSONS TMT (P) UD, NAGPUR, MAHARASHTRA • MAHALAXMI DHATU UDYOG, NAGPUR, MAHARASHTRA • MAHALAXMI DHATU UDYOG, NAGPUR, • ARK • MAHALAXMI DHATU UDYOG, NAGPUR, • ARK • MAHALAXMI DHATU UDYOG, NAGPUR, • ARK • MAHALAXMI DHATU UDYOG, NAGPUR, • MAHALAXMI DHATU • MAHALAXHI • MAH	Savings completed during the reporting period. • RAMSONS TMT (P) LTD, NAGPUR, MAHARASHTRA • MAHALXMI DHATU UDYOG, NAGPUR, MAHARASHTRA • MAHALXMI DHATU UDYOG, NAGPUR, MAHARASHTRA • MAHALXMI DHATU UDYOG, NAGPUR, MAHARASHTRA • MAHALXMI DHATU UDYOG, SAGPUR, MAHARASHTRA • MAHARASHTRA • SUJANA METAL • PRODUCTS LTD, been conducted · VISHAKAPATNAM, • ADRSH ISPAT PVT. • ADARSH ISPAT PVT. • ADARSH ISPAT PVT. • ADARSH ISPAT PVT. • MONGIA STEELLTD, GRIDIH, JHARKHAND • M.P.K. STEEL (I) PVT. Mandi • MONGIA STEELL & • Power Ltd ROLLING MILLS, KHANNA, PUNJAB • CHATTISGARH • DHIMAN INDUSTRIES PVT. UTD, NARS Bajar • T.K. STEEL ROLLING MILLS, LUDHIANA, PUNJAB • DHIMAN INDUSTRIES PVT. LtD, MANDI GOBINDGARH, GUIARA	<ul> <li>Indiana Sompleted</li> <li>Products</li> <li>Vishakapatham</li> <li>ARS Metals</li> <li>Ushakapatham</li> <li>ARS Metals</li> <li>Chennai,</li> <li>RAMSONS TMT (P)</li> <li>LTD, NAGPUR,</li> <li>MAHALAXMI DHATU</li> <li>UDYOG, NAGPUR,</li> <li>MAHAASHTRA</li> <li>MAHAASHTRA</li> <li>MAHAASHTRA</li> <li>SUJANA METAL</li> <li>Programmes</li> <li>PRODUCTS LTD.,</li> <li>been conducted</li> <li>VISHAKAPATNAM,</li> <li>Chellowing of</li> <li>of units, du</li> <li>ADARSH ISPAT PVT.</li> <li>LTD, JURG,</li> <li>LTD., DURG,</li> <li>MM, STEEL LTD,</li> <li>GIRIDH, JHARKHAND</li> <li>MONG STEEL LTD,</li> <li>GIRIDH, JHARKHAND</li> <li>MAPARSHTA</li> <li>MONG STEEL LTD,</li> <li>GIRIDH, JHARKHAND</li> <li>MAPARSHTAN</li> <li>MS Real IS</li> <li>ANASH SPAT PUN.</li> <li>LTD, JAPUR,</li> <li>Goldigarh</li> <li>MAJASTHAN</li> <li>MS Real IS</li> <li>ANASH SPAT PUNAB</li> <li>KHANNA, PUNIAB</li> <li>MMS Real IS</li> <li>ALSMI STEEL</li> <li>Rajour</li> <li>KHANNA, PUNIAB</li> <li>MILS, LUDHIANA,</li> <li>Ltd., Rajour</li> <li>PONAB</li> <li>Someshwar</li> <li>INDUSTRIES PVT. LTD.,</li> <li>Ispat Pvt. L</li> </ul>	Products Ltd Savings completed during the reporting period. • RAMSONS TMT (P) LTD., NAGPUR, • RAMSONS TMT (P) LTD., NAGPUR, • MAHALAXMI DHATU UDYOG, NAGPUR, • MAHALAXMI DHATU • MAHALAXMI DHATU UDYOG, NAGPUR, • MAHALAXMI DHATU • MAHALAXMI DHATU • JANAMI • JANAMI						-	

DEMs/local consultants	stakeholders	held during the	tours has been
organized to developed	capacity	reporting period at	conducted in the
countries for providing		Nagpur (Central	past to China.
exposure to similar		Cluster), Jaipur	b) International
industrial set up		(North-2 cluster),	collaboration
		Kolkata (East Cluster)	established with
		and Pune (West	M/s
		Cluster), with a total	Morgardshammer,
		of 22 participants.	Sweden on roll pass
		During these	design in the past.
		workshops the	c) A delegation
		existing RPDs of the	comprising of
		participating units	the PMC
		were evaluated	technical staffs
		through the RPD	and RMs
		software procured	participated in
		from M/s Morgards	the 9 <sup>th</sup>
		Hammer Sweden and	International
		remedial measures	Rolling
		suggested to the	Conference
		units.	held at Venice,
			Italy. The
			conference
			highlighted
			some of the
			new
			technology
			related to
			Induction
			heating, high
			speed rolling
			mills, cast in
			carbide roll
			which are
			relevant to
			Indian context.

Outcome	Outcome 5:	Indicator 1	No packages	To be implemented in	Commissioning of eco-	Commissioned 4	9 Nos. of SRRM units
5	Feasibility of	EcoTech Packages		50 model units.	tech options and	model units during	were commissioned,
	ET Options	implemented and		Note: The target has	customised eco-tech	the reporting period .	thus cumulating to 38.
	and	operationalized in 30		been revised from 30	options in 7 SRRM	29 units have been	
	Technology	units		to 50 model units as	units using pulverised	commissioned till	4 Nos. of units, who
	Packages			the activity on the	coal during the	date.	were about to be
	Established			hardware center was	reporting period. The		dropped, have been
				dropped following the	names of these units		revived now and it is
				mid-term review	are -		expected that the
				recommendations.	198M/s Sharda Ispat		commissioning will be
					Limited - Nagpur (July		completed by
					2010),		Sepetember'2013.
					M/s Orient Steel Re-		With this, the project
					Rolling Mill - Bhilai		will be able to achieve
					(July 2010),		a cumulative number
					M/s Adarsh Ispat		of 42 model units
					Udyog (P) Limited -		against the target of
					Bhilai (August 2010),		30 (initial) and 50
					M/s Vaishanavi Ispat		(modified).
					(P) Limited - Durgapur		
					( October 2010),		Out of the 11 nos. of
					M/s Ramsons TMT (P)		EE technology
					Limited - Nagpur		packages (for re-
					(December 2010),		heating furnace)
					M/s Mahalaxmi Dhatu		identified under the
					Udyog (P) Ltd -		project, 9 nos. of
					Nagpur (December		packages have been
					2010),		successfully
					M/s T.K.Steel Rolling		demonstrated in
					Mills (P) Limited -		model units.
					Ludhiana (December		
					2010)		Out of the 19 nos. of
							Eco-tech options (for
							re-rolling), identified
							under the project,
							13 nos of eco-tech

					options have been successfully demonstrated through the model units.
Indicator 2 Documentation of lessons learned in implementation of technology packages	None available	Completed	Bids received to prepare multimedia documentary films; case studies and process documentation are under evaluation. These films will serve as a tool for the dissemination of knowledge and help in replicating energy efficient technologies across the sector.	Contract has been released to Academic and Development Communication Services (ADCS) for developing 5 documentaries (Audio Visuals) in the following units: 1. M/s Pulkit Steel Rolling Mills 2. M/s M.P.K. Steels (I) Pvt. Ltd. 3. M/s Vivek Re- Rolling Mills 4. M/s Ludhiana Steel Rolling Mills 5. M/s Vaishanavi Ispat Private Limited	<ul> <li>a) Reported under outcome 3 Indicator 1. 5 Nos. of multimedia documentaries prepared on the implementation of technologies in the model units.</li> <li>b) Case studies prepared. Reported under outcome 3 Indicator 1.</li> </ul>
Indicator 3 Multiplications strategy i. Cluster wise mapping of energy efficiency issues concerns and targets ii. Financial linkages and techno- economic** modeling of EE options ii. Energy and environment study of selected non-sample	0	Completed	Bids were received and are in the process of evaluation for 10 'pipeline projects' to prepare investment proposals for 10 SRRM units.	Contract Signed with M/s SAILCON for study of impacts of project. 300 units are planned to be surveyed and data collection is in progress. M/s National Productivity Council has been awarded the assignment to carry	a) The assignment aimed at assessing the extent of replication of EE technologies. A survey was conducted in 300 SRRM units on stratified random sampling basis. The study revealed 55% [155 no. of units] of surveyed units

units.	out Feasibility study in	adopted EE
v. Development of	10 pipe line units	measures
investment pipeline	[pipeline units are	influenced either
project	those where Project	directly or indirectly
project	supports a study that	by the project.
	provides interventions	b) The project has
	and investment plan	completed
	to the SRRM Unit,	Feasibility study
	whereas in a model	and development of
	unit, project continues	reports for 40
	to provide technical	Pipeline units.
	assistance till the	During reporting
	interventions are	period, feasibility
	commissioned and	reports were
	post commissioning	finalized for the
	measurements are	following 16
	measured and the	pipeline units:
	workers are trained	1. SRMB Srijan Pvt.
	on new interventions	Ltd.
	management]. The	2. BD Casting Pvt.
	study is completed in	Ltd.
	the following 10 units;	3. BDG Metal &
	1. Indore Steel, Indore	Power Ltd.
	2. Nadan Steel &	4. SUL Steel Pvt.
	Power Ltd.	Ltd.
	3. Bhavani Rolling	5. Hoogli Ispat Ltd.
	Mills	6. Skipper Ltd.
	4. Mahendra Strips	7. Mahadeva Steel
	Pvt Ltd.	Mills Pvt. Ltd.
	5. Divyansh Steel Mills	8. Salasar Rolling
	Ltd.	Mills Pvt. Ltd.
	6. Ujjwal Ispat Pvt.	9. Hebe Ispat Pvt.
	Ltd.	Ltd.
	7. Venous Rolling Mills	10. NGA Steels Pvt.
	8. Madyachal Steel	Ltd.,
	-	
	Rolling Mills	11. United Metals

						<ul> <li>9. Merolls Pvt Ltd.</li> <li>10. Navkar Iron &amp;</li> <li>Steel Pvt. Ltd.</li> <li>and the study is in</li> <li>progress in the</li> <li>following new 16 units</li> <li>in progress:</li> <li>1. SRMB Srijan Pvt.</li> <li>Ltd.</li> <li>2. BD Casting Pvt. Ltd.</li> <li>3. BDG Metal &amp; Power</li> <li>Ltd.</li> <li>4. SUL Steel Pvt. Ltd.</li> <li>5. Hoogli Ispat Ltd.</li> <li>6. Skipper Ltd.</li> <li>7. Mahadeva Steel</li> <li>Mills Pvt. Ltd.</li> <li>8. Salasar Rolling Mills</li> <li>Pvt. Ltd.</li> <li>9. Hebe Ispat Pvt. Ltd.</li> <li>10. NGA Steels Pvt.</li> <li>Ltd.,</li> <li>11. United Metals</li> <li>Industries,</li> <li>12. Viki Industries (P)</li> <li>Ltd.,</li> <li>13. RKKR Steel Ltd.,</li> </ul>	Industries, 12. Viki Industries (P) Ltd., 13. RKKR Steel Ltd., 14. Thangam Steels Ltd. 15. Arun Vyapar Udyog. 16. Arjandass & Sons Pvt. Ltd.
						12. Viki Industries (P) Ltd., 13. RKKR Steel Ltd.,	
						14. Thangam Steels Ltd. 15. Arun Vyapar	
						Udyog. 16. Arjandass & Sons Pvt. Ltd.J97	
Outcome 6	Outcome 6: Innovative Institutional	Indicator 1 a) Development of 'performance	No ESCOs active in Steel SME Sector	Completed	One Brain storming workshop on 'Role of energy Service	A workshop was held in New Delhi in Sept 2011 on "Interactive	Projectmadecontinuouseffortduringthereporting
Mechanism	contracting' mechanism		Company (ESCO),	programme for Energy	period to involve		
-------------	------------------------	--	------------------------	------------------------------------	-----------------------		
Established	contracting incentions		Third Party Financing	Service Company	ESCOs in the SRRM		
[ESCO and			(TPF) and Financial	(ESCO)". Three case	sector. However,		
Third Party			Linkages' was held at	studies were	response received		
Financing			Chennai on 21st Dec	presented by different	from Units / ESCOs		
(TFP)]			2010. Speakers from	agencies to the	was not encouraging		
(1FP)]			BEE listed ESCOs	•	0 0		
				participating units which included	and has not converged		
			(Under Grade 1 & 2)		in concrete action.		
			were invited to share	implementation	However, PMC is still		
			their experience with	modalities, proposal	making an attempt		
			PMC Steel and the top	to SRRM units on	trial this option.		
			management of SRRM	what would be the			
			who participated in	anticipated			
			the workshop. It was	interventions.			
			felt that the scope in	However, no			
			the areas of lighting,	convergence has			
			alternate renewable	taken place to			
			fuels, fuel switching,	implement			
			motor replacement,	interventions on ESCO			
			cogeneration, bio	model yet.			
			mass gasification,				
			Thermal Optimisation				
			- furnaces, Variable				
			Frequency drives and				
			compressors may be				
			explored for energy				
			savings under ESCO				
			model. Four ESCOs				
			showed interest to				
			further pursue				
			business with SRRMs.				

Outcome 7	Outcome 7: TIRFAC Established	Indicator 1 Monitoring and Evaluation Plan along with reporting procedures finalized	None available	Completed	No major progress in the reporting period	Target acheived.	Target achieved.
		Indicator 2 Software Center of TIRFAC Hardware Center of TIRFAC	0	Completed	Roll pass design workshops conducted already reported in indicator 7 of outcome 4.	No progress during the reporting period.	The PMC set up to manage project also has capable Technical Manager. This has been serving the purpose of TIRFAC software centre. Support on roll pass design evaluation was provided to 6 SRRM units, during reporting period. The units included: M/s Dilip Rolling Mill, M/s K.I. Rathi Steel, M/s Sdvait Steel Rolling Mill, M/s Raj Rolling Mill & M/s Vivek Steel Rolling Mill. TIRFAC hardware center dropped as per previous PSC recommendation.

#### RATINGS OF PROGRESS TOWARD MEETING DEVELOPMENT OBJECTIVES

DO Rating: Please review the Development Objective Progress page of this APR/PIR and then answer the questions below. A DO rating will be generated based on your answers.

1 Please rate the cumulative progress being made toward achieving the end-of-project targets as reported in the project results framework in the DO page of this APR/PIR

2 Please rate the likelihood that the project will deliver environmental and social benefits for an extended period after project completion?

3 Please rate the likelihood that social or political risks may threaten the sustainability of project outcomes

Project Manager/Coordinator: Is the person managing the day to day operations of the project.

MANDATORY RATING MUST BE PROVIDED for projects under implementation in one country or regional projects where appropriate.

Please justify your rating and address the following points in your comments. Please keep word count between 500 words minimum and 1200 words maximum.

1.	Explain why you gave a specific rating.
2.	Note trends, both positive and negative, in achievement of outcomes as per the updated indicators provided in the DO sheet.
3.	Fully explain the critical risks that have affected progress.
4.	Outline action plan to address projects with DO rating of HU, U or MU.
Overall 2009 Rating	S
Overall 2010 Rating	S
Overall 2011 Rating	S
Overall 2012 Rating	HS
2013 Rating	HS
Comments	The project has achieved significant results towards its overall developmental objective. A total number of 9 SRRM model/ sample units were commissioned during the reporting period taking the total nos. to 38 commissioned units, till date. With the initiatives taken during the reporting period, a total no. of 42 units will be commissioned by the end of the project. The project provided technical assistance in the form of technological breakthrough for the SRRM sector by introducing the technology of "Direct Rolling". This technology is estimated to bring in a total transformational change in the SRRM sector.

	Against the target of reducing 9 PJ of energy and 0.88 million tonnes of CO2 through project interventions, the 31 evaluated units (out of 38 commissioned units) has yielded a lifetime energy saving of 7.78 PJ and avoided GHG emission by 642,630 tCO2, considering a lifetime of 10 years.
	Project interventions in 31 model units has been able to save fossil fuels, annually, in the form of 11,550 kilo litres of furnace oil and 12,956 tonnes of coal and electrical energy to the tune of 20,357 MWh / year .
	Financial targets achieved were the highest so far USD 1,445,345 which is over 100% of the budgeted amount of USD 1,445,000 for the year (January 2012 to December 2012).
	During the reporting period, the replication study of 300 non-model units was completed, which established 55% market interventions for the EE technologies in All-India basis, through project efforts, which has led to a saving of 1,706 TJ of thermal energy and 74,529 MWh of electrical energy. The total CO2 emission avoided, through replication in these 300 units, works out to be 213,424 t of CO2 per year and 2,134,240 tCO2 considering a lifetime of 10 years. The project has also achieved significantly in enhancing capacity for over 3,200 stakeholders, strengthening institutional arrangements in the form of Resident Missions, information dissemination in the form of documentaries, project website and development of significant knowledge products for the sector.
UNDP Country Office Progr	amme Officer: Is the UNDP programme officer in the UNDP country
	and supervision support to the project.
	T BE PROVIDED for projects under implementation in one country.
Not necessary for regional	
	nd address the following points in your comments. Please keep ords minimum and 1200 words maximum.
1.	
	Explain why you gave a specific rating, for example, if your rating differs from the rating provided by the project manager please explain why.
2.	differs from the rating provided by the project manager please
	differs from the rating provided by the project manager please explain why. Note trends, both positive and negative, in achievement of
2.	differs from the rating provided by the project manager please explain why. Note trends, both positive and negative, in achievement of outcomes as per the updated indicators provided in the DO sheet.
2. 3.	<ul> <li>differs from the rating provided by the project manager please explain why.</li> <li>Note trends, both positive and negative, in achievement of outcomes as per the updated indicators provided in the DO sheet.</li> <li>Fully explain the critical risks that have affected progress.</li> <li>Outline action plan to address projects with DO rating of HU, U or</li> </ul>

Overall 2011 Rating	MU
Overall 2012 Rating	S
2013 Rating	HS
Comments	The project has quickly progressed in the last three to four years and managed to achieve most of the results it set forth. It has met the commitment on almost all the outcomes except the involvement of Energy Service Companies. An independent study conducted to assess impact 55% of the 300 surveyed SRRM units has replicated the Energy Efficiency measures.
	In the outcome of establishing benchmarks for Eco-Tech Options & Packages, Nine of eleven technology packages in re-heating furnaces demonstrated in model units and of the 19 measures in the rolling side, 13 have been demonstrated. Further, a new innovation of 'Direct Rolling' has been nurtured and demonstrated in three composite steel mills. Composite steel mill includes both induction and SRRM in the same premises. Three major energy consuming sections in composite mill includes, induction furnace making use of electricity in an induction mill where scrap material is melted and the molten material is formed into billets and cooled to room temperature. In SRRM, the billets are re-heated in re-heating furnace where furnace oil or coal is used as fuel and in the re-rolling mill electricity is used to roll the billet to rebars, flats or angles. Direct rolling completely avoids the requirement of re-heating furnace. The estimated investment for the machinery is about 700,000 USD while the cost of fuel saved is more than 1 million USD every year. Thus this innovation perhaps is a game changer and one of the greatest contribution of the project.
	In the outcome on Strengthening Institutional Arrangements, a number of institutions were engaged by the project and in the process strengthened their capacities. Some of these institutions are, National Institute of Secondary Steel, National Productivity Council, and a number of consultants etc. who have continued interest and perhaps will continue their engagement.
	In the outcome on Effective Information Dissemination Program (Including setting up of knowledge centre), the project has produced AV films capturing different typology of EE interventions. Many viewers have provided feedback that they are very useful. A process story titled "Steel Re-rolling: How a pioneering project is transforming the Indian Secondary Steel Sector" capturing the process, results, lessons and the spin offs,

	process document etc.
	In the outcome on Enhanced stakeholders' capacity, almost all the SRRM unit has been reached out by the project and has created awareness on EE measures. Project has built the capacity of manages, foremen in the units, strengthened the capacities of furnace designers and builders to build energy efficient furnaces.
	In the outcome on Feasibility of ET Options and Technology Packages Established, project has successfully commissioned 38 model units and gathered data from 31 of them. It plans to add a few more units by the end of the unit. Against the target of reducing 9 PJ of energy and 0.88 million tonnes of CO2 through project interventions, the 31 evaluated units have yielded a lifetime energy saving of 7.78 PJ and avoided GHG emission by 642,630 tCO2, considering a lifetime of 10 years. Thus exceeding the targets set forth.
	In the outcome on Innovative Institutional Mechanism Established, though efforts have been made to engage ESCOs, it has not yet yielded results. However, the efforts made by the project have managed to influence replications.
	About five model SRRMs have got awards, appreciation from state government or central governments. Moreover, an atmosphere has been created in the sector to look into energy efficiency as an intervention to look at as business upgradation. Hence, the project deserves a rating of 'Highly Satisfactory'.
Project Implementing Partne	r: Is the representative of the executing agency (in GEF
	Government (for NEX/NIM execution) or NGO (for CSO Execution)
or an official from the Execut	ting Agency (for example UNOPS).
RECOMMENDED but NOT M	ANDATORY for projects under implementation in one country and
regional projects.	
-9 p9	

Please justify your rating and address the following points in your comments. Please keep word count between 200 words minimum and 500 words maximum.

1.	Explain why you gave a specific rating.
2.	Note trends, both positive and negative, in achievement of outcomes as per the updated indicators provided in the DO sheet.
3.	Provide recommendations for next steps.
Project Implementing Partne	<u>ir</u>
Overall 2009 Rating	

Overall 2010 Rating	
Overall 2011 Rating	
Overall 2012 Rating	
2013 Rating	
Comments	
GEF Operational Focal point GEF operation focal point.	: Is the government representative in the country designed as the
HIGHLY RECOMMENDED bu country. Not necessary for re	It NOT mandatory for projects under implementation in one egional or global projects.
	d address the following points in your comments. Please keep rds minimum and 500 words maximum.
1.	Explain why you gave a specific rating.
2.	Note trends, both positive and negative, in achievement of outcomes as per the updated indicators provided in the DO sheet.
3.	Provide recommendations for next steps.
GEF Operational Focal point	
Overall 2009 Rating	
Overall 2010 Rating	
Overall 2011 Rating	
Overall 2012 Rating	
2013 Rating	(S) Satisfactory
Comments	<ul> <li>The project has successfully demonstrated the viability and scope of energy efficiency measures promoted in the steel re-rolling mills across the country with the active support of the Ministry of Steel.</li> <li>The project has the potential of achieving the national as well as global environmental benefits if it undertakes the following: <ol> <li>The benchmarking study which is in progress, once completed is adopted by Ministry of Steel in promoting energy efficiency measures in the steel re-rolling mills across the country. The benchmarking study could also be shared with MSME for wider usage and application.</li> </ol> </li> <li>This project has proven that these units require technical handholding to adopt these measures. This task needs to be completed.</li> <li>The knowledge generated and institutions empowered</li> </ul>
	(resident missions) during this project should be used for

	promoting energy efficiency measures amongst the steel re-		
	rolling units across the country even after the winding of the		
	GEF project.		
Other Partners: For jointly	implemented projects, a representative of the other Agency working		
with UNDP on project implementation (for example UNEP or the World Bank).			
RECOMMENDED but NOT	MANDATORY for jointly implemented projects.		
	and address the following points in your comments. Please keep vords minimum and 500 words maximum.		
1.	Explain why you gave a specific rating.		
2.	Note trends, both positive and negative, in achievement of		
	outcomes as per the updated indicators provided in the DO sheet.		
3.	Provide recommendations for next steps.		
Other Partners			
Overall 2009 Rating			
Overall 2010 Rating	(N/A) Not Applicable		
Overall 2011 Rating			
Overall 2012 Rating			
2013 Rating			
Comments			
UNDP Technical Adviser:	Is the UNDP-GEF Technical Adviser.		
MANDATORY RATING MU	ST BE PROVIDED for all projects.		
	and address the following points in your comments. Please keep vords minimum and 1200 words maximum.		
1.	Explain why you gave a specific rating (do not repeat the project objective).		
2.	Note trends, both positive and negative, in achievement of outcomes as per the updated indicators provided in the DO sheet.		
3.	Fully explain the critical risks that have affected progress.		
4.	Outline action plan to address projects with DO rating of HU, U or MU.		
UNDP-GEF Technical Adv	iser		

Overall 2009 Rating	(MS) Moderately Satisfactory
Overall 2010 Rating	(MS) Moderately Satisfactory
Overall 2011 Rating	(MU) Moderately Unsatisfactory
Overall 2012 Rating	(S) Satisfactory
2013 Rating	(HS) Highly Satisfactory
Comments	This will be the final PIR for this project as project will be ending by December 2013. From the past two years (this reporting period as well as previous one), the project made conscious and sincere efforts in completing most of the indicators and achieving the project targets. The project initially targeted 30 model units, but this number has been increased eventually to 50 units in one of the PSCs. As on June 2013, 38 model units were commissioned and 4 more units are under consideration. With this, it is expected to commission a total of 42 model units by the end of the project (December 2013). Overall, the project completed feasibility studies in 40 pipeline units and prepared reports. The project made every effort to involve ESCOs in the SRRM sector, but without any success so far. As of December 2012, the co- financing realised from Government of India (GoI) commitment was at US\$ 1,876,000 against US\$ 7,280,000 (as per ProDoc). Whereas from industries (model units), the realised co-financing was US\$ 6,872,371 against US\$ 5,540,000, which is a notable outcome. This number is expected to be increased further with the inclusion of data for the year 2013. So far, there was no realised co-financing from financial institutions and the reasons are very evident.
	As mentioned last year, this project has introduced a culture of monitoring and recording of data in SRRMs. Out of the 11 EE technology packages identified for re-heating furnace, 9 technologies have been successfully demonstrated in model units. Out of the 19 Eco-tech options identified for re-rolling, 13 eco-tech options have been successfully demonstrated in these model units. The project also established international collaboration with M/s Morgardshammer, Sweden on roll pass design in the past. Also direct rolling is a new innovation that was introduced and commissioned successfully in one of the SRRMs. The direct rolling technology avoids the use of reheating furnace. PMU personnel spent significant amount of time in fine tuning this technology to suite local practices and Indian conditions. An impact survey was conducted in 300 SRRM units on stratified random sampling approach among 1,890 SRRMs in India. This study revealed that 55% (155 no. of units) of surveyed units adopted EE measures influenced either directly or indirectly by the project. The project also conducted roll pass design evaluation in 6 SRRM units to see its effectiveness.
	The project had developed a number of "Best Practices" and successfully implemented in many SRRMs. ISO 9001/ISO 14001 trainings were completed successfully in 16 model units. Salient features of these ISO trainings are internal audit, pre certification audits, development of energy/environmental policies and procedures and guidance provided for documentation. Further, it had successfully implemented 5S in 10 model units as well as "Performance Improvement Training (PITs)" programmes that were conducted in 6 model units. Standard Operating Practices (SOP) and Standard Maintenance Practices (SMP) were implemented in 10 model units. These are specific interventions targeted for SMEs, considering

SRRMs of this category, such interventions were introduced for the first time.
The project trained cumulatively over 3,200 persons of various cadres in SRRM sector such as consultants, domestic equipment manufacturer, unit owners and association members, etc. In additional, over 2,500 unit representatives have been reached through the awareness workshops and cluster meetings. These are identified as one of the stimulus for promoting market transformation of SRRM sector.
The project delivered a number of effective information products and programmes. A number of audio-visual (A/V) documentaries of success stories were produced and circulated widely. Recently, with the success of direct rolling, an A/V is under preparation.
The project considered midterm review recommendations and very much demonstrated adaptive management. The project has managed risks quite well from the past 3 to 4 years though historically it has faced many issues within PMU as well as in establishing dialogue with SRRM sector. The overall financial delivery of the project from the past two reporting periods was good.
Based on the criteria for DO rating, the project is expected to achieve or exceed all its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. Therefore, the DO rating of the project is High Satisfactory (HS).
Following are some of the recommendations from RTA perspective where the project can improve further in its next phase:
(f) It was learnt that, with the success of this project, it has received funding from UNDP TRAC 2 as well as AusAID (bilateral donor) to continue the developments of this UNDP- GEF project to its next phase. It is important that the project shall look at scale up interventions such as (a) direct rolling, (b) improvements in material management for rolls in milling, such as introduction of carbide rolls which will influence longer campaign life and improve surface quality of the products, (c) development of efficient cooling systems and heat exchangers for quenching process which will help to also reduce water usage.
<ul> <li>(g) Providing continued subsidies is not a good practice at all and may lead to market distortion. SRRM units are very much capable to put 100% equity to implement energy efficiency interventions. It is important that they need continued handholding in terms of technical back stopping, which was lacking in this sector. Therefore, from the past three to four years, it was recommended to focus on establishment of TIRFAC software centre, but there was no clarity as on date. Considering the additional support that was received to continue the project, taking this as an opportunity, the project shall implement exit strategy that is being prepared and ensure TIRFAC software centre will be functioning within a year from now. Perhaps it is a good opportunity to even leverage Gols remaining committed co-financing (approx. US\$ 5.4 million) as corpus for the TIRFAC software centre to self-sustain business and establish itself in the market.</li> </ul>
<ul> <li>(h) The project design was quite ambitious considering its nature.</li> <li>Working with SMEs (which are normally unorganised), market penetration efforts will last longer which was the case that</li> </ul>

	<ul> <li>happened under the project. Once successful demonstrations were seen by the rest of SRRMs, it indeed had a catalytic impact that results in market transformation. But in summary, projects of this nature should be granted at least 5 to 7 years for project implementation period.</li> <li>(i) It is important to fully operationalize the developed/established MRV system which should also capture the investments by the SRRMs towards energy efficiency interventions.</li> <li>(j) ESCOs modality may not work well and recommended not to focus on such activities.</li> </ul>
Highly Satisfactory (HS)	Project is expected to achieve or exceed all its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. The project can be presented as 'good practice'.
Satisfactory (S)	Project is expected to achieve most of its major global environmental objectives, and yield satisfactory global environmental benefits, with only minor shortcomings.
Marginally Satisfactory (MS)	Project is expected to achieve most of its major relevant objectives but with either significant shortcomings or modest overall relevance. Project is expected not to achieve some of its major global environmental objectives or yield some of the expected global environment benefits.
Marginally Unsatisfactory (MU)	Project is expected to achieve its major global environmental objectives with major shortcomings or is expected to achieve only some of its major global environmental objectives.
Unsatisfactory (U)	Project is expected not to achieve most of its major global environment objectives or to yield any satisfactory global environmental benefits.
Highly Unsatisfactory (HU)	The project has failed to achieve, and is not expected to achieve, any of its major global environment objectives with no worthwhile benefits.

#### PROGRESS IN PROJECT IMPLEMENTATION

## Outcome 1- Key Outputs this Reporting Period: Outcome 1: Benchmarks for EcoTech Options & Packages Established

- Awarded an assignment to PWC to develop benchmarks and MEPs for Steel Re-rolling mill (SRRM) sector.
- Conducted Life Cycle Assessment (LCA) study in 2 nos. of model units.
- Completed Cost Benefit Analysis consisting of NPV, IRR, and Payback etc. for 10 nos. of model / sample units.
- Established and updated Techno-economic viability of the EE technology packages and options.

Outcome 2- Key Outputs this Reporting Period: Outcome 2: Strengthened Institutional Arrangements

• 6 Resident Missions in operation till 31<sup>st</sup> December'2012 and 2 RMs w.e.f. 1<sup>st</sup> January have provided technical assistance to SRRM on EE measures.

### Outcome 3- Key Outputs this Reporting Period: Outcome 3: Effective Information Dissemination Program (Including setting up of knowledge centre)

- Project Website is being updated periodically.
- Developed A/V capsules titled "Power of energy efficiency" on 5 model units and are being distributed to stakeholders.
- Draft Case studies on 5 model units completed and is expected to be finalized by Sept'2013.
- Commissioned 'process document titled "Steel Re-rolling: How a pioneering project is transforming the Indian Secondary Steel Sector" preparation and is expected to be completed by August 2013.
- Commissioned documentary to capture "Direct Rolling Technology" and is expected to be completed by Sept'2013.

Outcome 4- Key Outputs this Reporting Period: Outcome 4: Enhanced stakeholders capacity

- Workshops on technology options for SRRM were held at Gangtok and Mysore with 115 participants consisting of DEMs, Consultants and other stakeholders.
- SOPs/ SMPs implemented in 10 units.
- ISO 9001/14001 implemented in 16 units
- 5 S implemented in 10 units
- Performance Improvement Training (PIT) conducted in 6 nos. of SRRM units
- Two members of Project team and two from Resident Mission participated in International Rolling Conference at Venice, Italy from 10- 12<sup>th</sup> June'2013, (four officials from PMC/ RMs).

## Outcome 5- Key Outputs this Reporting Period: Outcome 5: Feasibility of ET Options and Technology Packages Established

- Commissioned 9 nos. of model / sample units during reporting period.
- Developed 5 nos. of documentaries on model units.
- Conducted feasibility studies and developed reports for 20 pipeline units
- Conducted study in 300 non model units, to explore extent of replication. Established 55% replication of EE technologies on All-India basis.

Outcome 6- Key Outputs this Reporting Period: Outcome 6: Innovative Institutional Mechanism

#### Established [ESCO and Third Party Financing (TFP)]

• Invited offers for ESCO implementation and the assignment is expected to be completed before December'2013.

#### Outcome 7- Key Outputs this Reporting Period: Outcome 7: TIRFAC Established

• Project Management Unit provided technical assistance, which partially serves the purpose of TIRFAC software centre. They provided assistance on roll pass design evaluation to 6 units.

#### IMPLEMENTATION PROGRESS RATING

IP rating: Please review the Implementation Progress page of this APR/PIR and then answer the questions below. An overall IP rating will be generated based on your answers.

1 Please rate the progress in delivery of outputs. For example, do the annual outputs represent sufficient progress in order to achieve the project outcomes (see DO page of this APR/PIR)?

2 Please rate the efficiency in delivery of outputs. For example, in this reporting period are budget resources being spent as planned? (i.e. is project delivery on target?)

3 Please rate the quality of risk management. For example, in this reporting period were project risks managed effectively?

4 Please rate the quality of adaptive management. For example, in this reporting period were actions taken to address implementation issue identified in the APR/PIR last year?

5 Please rate the quality of monitoring and evaluation. For example, in this reporting period were sufficient financial resources allocated to project monitoring and evaluation

Project Manager/Coordinator: Is the person managing the day to day operations of the project.

MANDATORY RATING MUST BE PROVIDED for projects under implementation in one country or regional projects where appropriate.

Please justify your rating and address the following points in your comments. Please keep word count between 500 words minimum and 1200 words maximum.

1.	Explain why you gave a specific rating.	
2.	Summarize annual progress and address timelines of projec output/activity completion in relation to annual workplans.	
3.	Outline the general status of project expenditures in relation to annual budgets, the effectiveness of project management units in guiding project implementation, and the responsiveness of the project board in overseeing project implementation.	
Overall 2009 Rating	(S) Satisfactory	
Overall 2010 Rating	(S) Satisfactory	
Overall 2011 Rating	(S) Satisfactory	
Overall 2012 Rating	(HS) Highly Satisfactory	
2013 Rating	(HS) Highly Satisfactory	
Comments	All project activities, taken up during the reporting period has been mostly accomplished or nearing completion. The total financial deliverables during January to December'2012 was highest till date, wherein an expenditure of USD 1,445,345 was made against a budget of USD 1,445,000 leading to a financial delivery of over 100%. During	

2013, out of the total budget of 563,145 USD, expenditure of 199,630 USD has been made till date, leading to financial delivery of 35%. With this, the total expenditure made during July'2012 to June'2013, is USD 1,269,039, which is highest, till date. Some of the significant activities, accomplished during the reporting period includes replication study in 300 units; feasibility studies for the 20 pipeline units and capacity building activities such PIT, 5S, ISO 9001/14001, SOP/SMP etc. In addition to the above, major accomplishments' was achieved through commissioning of 9 model / sample units, taking the total to 38, till date. Some of the significant activities which have been taken up during reporting period and are nearing completion are activities such as development of benchmarks and MEPs and development of project process document. In addition to the same, the project exit strategy and identification of a succeeding agency is under process.

UNDP Country Office Programme Officer: Is the UNDP programme officer in the UNDP country office who provides oversight and supervision support to the project.

MANDATORY RATING MUST BE PROVIDED for projects under implementation in one country. Not necessary for regional or global projects.

Please justify your rating and address the following points in your comments. The QORs and delivery data in the ERBM portfolio project monitoring report should inform your rating. Please keep word count between 500 words minimum and 1200 words maximum.

1.	Explain why you gave a specific rating. If your rating differs from the rating provided by the project manager please explain why.	
2.	Summarize annual progress and address timeliness of project output/activity completion in relation to annual workplans.	
3.	Outline the general status of project expenditures in relation to annual budgets, the effectiveness of project management units in guiding project implementation, and the responsiveness of the project board in overseeing project implementation.	
Overall 2009 Rating	(S) Satisfactory	
Overall 2010 Rating	(S) Satisfactory	
Overall 2011 Rating	(MS) Moderately Satisfactory	
Overall 2012 Rating	(S) Satisfactory	
2013 Rating	(HS) Highly Satisfactory	
Comments	The budget during the reporting period was approximately 990,000 USD [considering Q2, Q3 of 2012 and Q1, Q2 of 2013] and the expenditure during the reporting period was about 93% indicating a healthy progress. Key and urgent actions were taken in awarding the key assignments of benchmarking. Price Waterhouse Coopers (PWC) has been contracted to carry out benchmarking for energy in SRRM Unit, Minimum Energy	
	Performance for equipments. Key tasks like life cycle assessments, cost	

benefit analysis and techno-economic viability of the EE technology packages and options were completed.
Both project website and the UNDP project pages have been periodically updated. National Informatics Centre, Government of India has concurred to provide server space for project website for a period of 10 years which will be linked to Ministry of Steel. Developed A/V capsules titled "Power of energy efficiency" on 5 model units representing set of technology packages and these were distributed to stakeholders to further encourage their adoption in units which have not yet adopted EE measures. An assignment to capture the process of the project was commissioned and draft book titled "Steel Re-rolling: How a pioneering project is transforming the Indian Secondary Steel Sector" is being reviewed and it is expected to be completed by August 2013.
Exit strategy was commissioned to PWC to (i) identify activities to proliferate energy efficiency in steel rerolling mills, (ii) identifying a succeeding agency, and (iii) developing a business plan for the agency. One consultation workshop was held to brainstorm exit strategy.
10 Cluster level meetings have been planned to enhance the awareness further in locations where potential for EE in SRRM still exists. One such workshop was held at Bhiwadi helped the units in this cluster to understand energy efficiency measures.
A team of four members from project management unit and resident missions participated in 9 <sup>th</sup> International Rolling Conference at Venice, Italy. The conference highlighted some of the new technology related to Induction heating, high speed rolling mills, cast in carbide roll which are relevant to Indian context.
Terminal evaluation of the project was commissioned and field mission was completed.
Impact assessment study was conducted by third party, SAILCON. They surveyed 300 non-model units out of a total population of 1,890 units. 166 units, i.e. 55% of the surveyed units have implemented energy efficient technologies.54 could be traced to 'Direct Project Effort' which meant, project experts visited, beneficiaries participated in interactive workshops/meetings/awareness workshops and due to studies and training conducted. 112 could be traced due to 'Indirect Project Effort' attributed to dissemination through consultant/domestic equipment manufacturers, information by model units and direct replication through model units. Low end technologies typical investment of less than 1 crore Rs per unit were most popular which included technologies such as high efficient recuperator with improved furnace design.
The project has made sincere attempts to converge all outcomes during the reporting period, completed or commissioned comprehensive documentation, doing a smooth exit by leaving behind knowledge products, exit strategy aiming to provide clear roadmap for further proliferation. Hence, 'Highly Satisfactory' rating has been provided.

Project Implementing Partner: Is the representative of the executing agency (in GEF terminology). This would be Government (for NEX/NIM execution) or NGO (for CSO Execution) or an official from the Executing Agency (for example UNOPS).

**RECOMMENDED** but **NOT** mandatory for projects under implementation in one country or regional projects.

Please justify your rating and address the following points in your comments. Please keep word count between 200 words minimum and 500 words maximum.

1.	Explain why you gave a specific rating.	
2.	Note trends, both positive and negative.	
3.	Provide recommendations for next steps.	
Overall 2009 Rating		
Overall 2010 Rating		
Overall 2011 Rating		
Overall 2012 Rating		
2013 Rating		
Comments		
GEF operation focal po MANDATORY RATING Not necessary for regio	MUST BE PROVIDED for projects under implementation in one country.	
	ng and address the following points in your comments. Please keep 10 words minimum and 500 words maximum.	
1.	Explain why you gave a specific rating.	
2.	Note trends, both positive and negative.	
3.	Provide recommendations for next steps.	
Overall 2009 Rating		
Overall 2010 Rating		
Overall 2011 Rating		
Overall 2012 Rating		

(S) Satisfactory

2013 Rating

• 1 • 2	<ul> <li>of energy efficiency measures promoted in the steel re-rolling mills across the country with the active support of the Ministry of Steel.</li> <li>The project has the potential of achieving the national as well as global environmental benefits if it undertakes the following:</li> <li>The benchmarking study which is in progress, once completed is adopted by Ministry of Steel in promoting energy efficiency measures in the steel re-rolling mills across the country. The benchmarking study could also be shared with MSME for wider usage and application.</li> </ul>
• 7 ç 1	<ul> <li>The project has the potential of achieving the national as well as global environmental benefits if it undertakes the following:</li> <li>The benchmarking study which is in progress, once completed is adopted by Ministry of Steel in promoting energy efficiency measures in the steel re-rolling mills across the country. The benchmarking study could also be shared with MSME for wider usage and application.</li> </ul>
1 1	<ul> <li>global environmental benefits if it undertakes the following:</li> <li>The benchmarking study which is in progress, once completed is adopted by Ministry of Steel in promoting energy efficiency measures in the steel re-rolling mills across the country. The benchmarking study could also be shared with MSME for wider usage and application.</li> </ul>
	is adopted by Ministry of Steel in promoting energy efficiency measures in the steel re-rolling mills across the country. The benchmarking study could also be shared with MSME for wider usage and application.
2	measures in the steel re-rolling mills across the country. The benchmarking study could also be shared with MSME for wider usage and application.
2	benchmarking study could also be shared with MSME for wider usage and application.
2	usage and application.
2	• · · ·
	<ol><li>This project has proven that these units require technical</li></ol>
	handholding to adopt these measures. This task needs to be
	completed.
3	B) The knowledge generated and institutions empowered
	(resident missions) during this project should be used for
	promoting energy efficiency measures amongst the steel re-
	rolling units across the country even after the winding of the
	GEF project.
Other Partners: For jointly imple	mented projects, a representative of the other Agency working
with UNDP on project implemen	tation (for example UNEP or the World Bank).
RECOMMENDED but NOT mand	atory for jointly implemented projects.
Please justify your rating and ad	Idress the following points in your comments. Please keep
	minimum and 500 words maximum.
1. Expl	ain why you gave a specific rating.
2. Note	trends, both positive and negative.
3. Prov	ide recommendations for next steps.
5. FIOV	ide recommendations for next steps.
Overall 2009 Rating	
Overall 2009 Rating	
Overall 2009 Rating Overall 2010 Rating	
Overall 2010 Rating	
Overall 2010 Rating	
Overall 2010 Rating Overall 2011 Rating	
Overall 2010 Rating Overall 2011 Rating Overall 2012 Rating 2013 Rating	
Overall 2010 Rating Overall 2011 Rating Overall 2012 Rating	

#### MANDATORY RATING MUST BE PROVIDED for ALL projects.

Please justify your rating and address the following points in your comments. The QORs and delivery data in the ERBM portfolio project monitoring report should inform your rating. Please keep word count between 500 words minimum and 1200 words maximum.

1.	Explain why you gave a specific rating. If your rating differs from the rating provided by the UNDP Country Office Programme Officer and/or the Project Manager please explain why.	
2.	Summarize annual progress and address timelines of project output/activity completion in relation to annual workplans.	
3.	Outline the general status of project expenditures in relation to annual budgets, the effectiveness of project management units in guiding project implementation, and the responsiveness of the project board in overseeing project implementation.	
UNDP Technical Advise		
Overall 2009 Rating	(MS) Moderately Satisfactory	
Overall 2010 Rating	(S) Satisfactory	
Overall 2011 Rating	(MS) Moderately Satisfactory	
Overall 2012 Rating	(S) Satisfactory	
2013 Rating	(HS) Highly Satisfactory	
Comments	The annual targets were entered in ATLAS and the status of progress towards these annual targets is being monitored on quarterly basis. The risk log in ATLAS is being updated regularly at least until Q2 of 2012. However, the mentioned critical risks in the PIR/APR 2013 shall be reflected in the ATLAS risk log. The project financial delivery is on track. For the contracts issued in Q1 and Q2 of 2013, payments will be made in Q3 of 2013. Therefore it can be said that the project financial delivery is on track. The project has made sincere efforts to congregate all the outputs during this reporting period through completing the commissioned reports/assessments/studies so as to ensure a smooth exit by leaving behind knowledge products, and providing clear roadmap for further proliferation. It was learnt that the project is preparing an exit strategy which will be put into implementation soon. The project has done very well in terms of communication and knowledge products and produced a number of short films which are quite informative and influential. During this reporting period, 9 model units were commissioned that is leading the total number of model units to 38. The project awarded an assignment to PWC to develop benchmarks and MEPs for SRRM units and it is an important activity which shall be concluded before project closure. The findings of this report shall be widely distributed. Number of Resident Missions was condensed from 6 to 2 nos. during 2013 in order to sustain PMU operation. During this reporting period, workshops on technology options for SRRMs were held at Gangtok and Mysore with a total of 115 participants. A number of "Best Practices" trainings were conducted and also few (A/V) documentaries of success stories were commissioned. The project supervision and monitoring is quite good and regularly conducted PSC meetings during last reporting period. The project financial delivery is good during last reporting period. The project	

	development, responding to the needs of SRRMs and within its operation by reducing the number of Resident Missions from 6 to 2. Therefore, based on the criteria for IP rating, the project implementation progress can be rated Highly Satisfactory (HS). The project shall take action towards retaining the knowledge developed under the project to benefit more number of SRRM units in the country.
Highly Satisfactory (HS)	Project is expected to achieve or exceed all its major global
	environmental objectives, and yield substantial global
	environmental benefits, without major shortcomings. The project can be presented as 'good practice'.
Satisfactory (S)	Project is expected to achieve most of its major global environmental objectives, and yield satisfactory global environmental benefits, with only minor shortcomings.
Marginally Satisfactory (MS)	Project is expected to achieve most of its major relevant objectives but with either significant shortcomings or modest overall relevance. Project is expected not to achieve some of its major global environmental objectives or yield some of the expected global environment benefits.
Marginally Unsatisfactory (MU)	Project is expected to achieve its major global environmental objectives with major shortcomings or is expected to achieve only some of its major global environmental objectives.
Unsatisfactory (U)	Project is expected not to achieve most of its major global environment objectives or to yield any satisfactory global environmental benefits.
Highly Unsatisfactory (HU)	The project has failed to achieve, and is not expected to achieve, any of its major global environment objectives with no worthwhile benefits.

#### ADJUSTMENTS

#### Adjustments to Project Milestones, Project Strategy and Risk Management

#### **Key Project Milestones**

Have significant delays occurred in the project start, inception workshop, Mid-term Review, Terminal Evaluation or project duration?

Yes

If yes, were these changes reported in a previous APR/PIR?

#### Yes

Key project milestone	Scope of delay (in months)	Briefly describe change or reason for change	Briefly describe the implications or consequences this has had on project implementation
Project Start (i.e. project document signature date)	NA		
Inception Workshop	NA		
Mid-term Review	NA		
Terminal Evaluation	On –Time (NA)		
Project Duration (i.e. project extension)	12 months	Project Extended till 31 <sup>st</sup> December'2013, to complete the project pending activities and also to disburse the Capital Subsidy to the implemented units from the NEX fund.	Project implementation by model / sample units has been almost complete. Project extension till 31 <sup>st</sup> December'2013 will be completed with its stated objective, with this extension.

#### Adjustments to Project Strategy

Has the project made any changes to its strategy (i.e. logframe/results framework) since the Project Document was signed?

No

If yes, were these changes reported in a previous APR/PIR?

Change Made to	Yes/No	Briefly describe the change and the reason for that change
Project Objective	No	NA

Project Outcomes	No	NA
Project Outputs/Activities	No	NA

#### **Risk Management**

List number of critical risks as noted in the ATLAS risk log and briefly describes actions undertaken this reporting period to address each critical risk.

# of Critical Risks (type/description)	Risk management measures undertaken this reporting period
The subsidy release to Model Units is delayed (Financial)	The project has been extended by 12 months for closure of all pending activities including release of Capital Subsidies to Model units. Though it is the government co-financing, the process of release has been fast tracked by the project with the appointment of an individual consultant, primarily looking only at Capital Subsidy release. The process has been streamlined and regularly monitored for scheduled completion, latest by October'2013.
TIRFAC Software Centre has not yet been operational (Operational).	PMU is providing this service and functioning as TIRFAC Software Centre. However, PMU has not yet become self-financing institution. Exit Strategy has been commissioned is exploring [i] activities that required to proliferate EE measures in the SRRM sector, [ii] identify possible succeeding agency which will champion EE measures post project scenario, and [iii] develop business plan for succeeding agency.

#### Adjustments general comments:

#### Finance: cumulative from project start to June 30 2013

#### **DISBURSEMENT OF GEF GRANT FUNDS**

How much of the total GEF grant as noted in Project Document plus any project preparation grant has been spent so far? (e.g. PPG + MSP or FSP amount. Do not break down by PPG or project budget.)

Estimated cumulative total disbursement as of 30 June 2013. (i.e.CDR information up to 20 June 2013)	USD 6,386,830
•	The project will exhaust the entire grant financing (US\$ 6,751,041) by December 2013.

#### DISBURSEMENT OF CO-FINANCING

How much of the total Co-financing as noted in Project Document has been spent so far? Cofinancing is the amount committed in the project document for which co-financing letters are available

as of 30 June this year. Please breakdown by donor.	Ministry of Steel, Government of India (Gol): US\$1,942,809 Industries (model units): US\$ 6,872,371 FIs and others: US\$ 0

#### ADDITIONAL LEVERAGED RESOURCES

These additional resources can be from the same donors or new donors.

Estimated cumulative leveraged resources as of 30 June 2013	Industries (model units): US\$: 1,287,371
Add any comments on Leveraged Resources.	As on December 2013, the model units incurred more than actual committed co-financing. This number will increase considering the investments made by model units in the year 2013.

#### **Other Financial Instruments**

Does the project provide funds to other Financial Instruments?	No
If yes, please discuss developments that occurred this reporting period only.	NA

#### Communications and KM

## Tell the Story of Your Project and what has been Achieved this Reporting Period

With the growing demand for Steel in India, primarily ignited through the nation-wide drive for infrastructure development, the secondary Steel Re-rolling Mill (SRRM) sector attained a new dimension of significance. The fluctuations of market dynamics specially focused around the fuel prices led to concerns towards sustainability of SRRM units. The project supported energy efficiency which significantly resulted in reducing fuel consumption and enhanced productivity. This has also resulted in significant savings on fuel cost and increased income due to increased productivity. The measures also reduced pollution load. All these together contributed to the survival and sustenance of the SRRM units under this transition period. There is a perception that EE interventions have brought into significant reduction pollution load thus leading to better and healthier work environment for the shop floor personnel and surroundings.

The extensive technical and financial support extended by the project supported commissioning of 9 model units during the reporting period taking the cumulative number to 38 model SRRM units against the overall target of 50. Post implementation evaluation in 31 model units revealed a cumulative emission reduction (project duration) of 192,891 tCO<sub>2</sub>. The estimated lifetime direct GHG emissions avoided, considering a lifetime of 10 years, was 642,630 tCO2. In energy terms, these 31 model units are estimated to save 7.78 PJ of energy.

The project also has triggered significant replications. An independent study conducted by SAILCON revealed that 55 % of the 300 surveyed units have incorporated EE technologies, exceeding the target 25% set during the project inception.

During the reporting period, following key activities were completed/initiated:

- "Development of Benchmarks and MEPs for the steel re-rolling mill sector" by PWC. This is perhaps the first time in the country when such an effort is being taken for the SMEs and in specific SRRM sector;
- (2) Performance Improvement Training (PIT), 5S Lean Management, ISO 9001 & 14001, Roll Pass Design workshops, SOPs/SMPs implementation etc. were conducted to benefit the model units,
- (3) Cumulatively trained over 3,200 persons of various cadres in SRRM sector such as consultants, domestic equipment manufacturer, unit owners and association members, etc. In additional, over 2,500 unit representatives has been reached through the awareness workshops and cluster meetings.
- (4) Development of exit strategy has been initiated

#### Adaptive Management this Reporting Period

 Since, the project is in its terminal year (to be closed by December'2013), the Project Management Cell (PMC) was truncated w.e.f. 1<sup>st</sup> January'2013 wherein the staff members were reduced from 25 to 8. Also, looking at the relatively lesser work left in the field, the numbers of Resident Missions were also reduced from 6 to 2. These adaptive management measures are under implementation during this reporting period to smoothly close the project.

- 2. Efforts were also taken, during the reporting period, to develop an Exit Strategy for the project and also for identification of a succeeding agency in order to continue the efforts and services to the target industries.
- 3. Inclusion of the technology of "Direct Rolling" under the EE technology intervention was done, during the reporting period. This technology is estimated to being in a transformational change in the Indian SRRM sector.

#### **Lessons Learned**

The project has provided significant lessons, and real case studies towards transforming a low responsive, unorganized sector to highly successful and a sustainably transforming small and micro enterprises sector.

The significant lessons learnt during the reporting period, includes:

- 1. Need of cluster-based approach for successful project implementation.
- 2. Identification of proper information dissemination tool to widespread knowledge.
- 3. Knowledge support is key to win trust of stakeholders and amalgamate new interventions
- 4. Maintaining proper monitoring and verifications systems to quantify project benefits

#### **PARTNERSHIPS**

#### **Civil Society Organisations/NGOs**

NA

#### **Indigenous Peoples**

NA

#### **Private Sector**

The project targets energy efficiency improvement in the private sector steel re-rolling mills in India. During the reporting period, additional 9 numbers of units were commissioned, taking the total figure to 38. The cumulative private investment made towards meeting the project objective is \$ 7,619,054.

#### **GEF Small Grants Programme**

NA

#### **Other Partners**

NA

#### PROGRESS IN ADDRESSING GENDER EQUALITY

Has a gender or social needs assessment been carried out?

No

If a gender or social assessment has been carried out what are the findings?  $\ensuremath{\mathsf{NA}}$ 

Does this project specifically target women or girls as direct beneficiaries?

No

Have there been any changes in specifically targeting women or girls as direct beneficiaries this reporting period?

NA

If yes, please explain:

NA

# Please discuss any of the points above further or provide any other information on the project's work on gender equality undertaken this reporting period

Some points to consider: impact of project on daily workload of women, # of jobs created for women, impact of project on time spent by women in household activities, impact of project on primary school enrolment for girls/boys, increase in women's income etc. Be as specific as possible and provide real numbers (e.g. 100 women farmers participating in sustainable livelihoods programme).

NA

#### ENVIRONMENTAL OR SOCIAL GRIEVANCE

NA. No grievance addressed during reporting period.

#### What environmental or social issue was the grievance related to?

NA

What is the current status of the grievance?

NA

How would you rate the significance of the grievance?

NA

Please describe the on-going or resolved grievance noting who was involved, what action was taken to resolve the grievance, how much time it took, and what you learned from managing the grievance process (maximum 500 words). If more than one grievance was addressed this reporting period, please explain the other grievance (s) here:

NA