



Sustainable Development Report, FY 2013-14

(As per DPE- CSR & Sustainability Guidelines)

Vision:

- To become Global leader in Warship building

Mission:

- To be self-reliant in design capability and deploy state-of-the-art manufacturing processes
- To build quality Warship at competitive prices, exceeding customer's expectation in terms of delivery time and product support
- To achieve sustained growth through customer satisfaction, product innovation, capturing export potential and employee satisfaction

Corporate objective

- To achieve steady growth of VOP / Turnover
- Dedication of advanced infrastructure to GRSE for its utmost utilization, developed through phase-II modernization
- All around efforts to acquire export orders
- Thrust towards cost reduction & improvement of productivity
- Commencement of production of newly designed portable Bridge
- Special efforts for implementation of healthcare services, Education & Community Development programs in and around GRSE
- Creation of plan for overall development of GRSE including cultural aspect, beautification and sport activities

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Foreword:

Garden Reach Shipbuilders & Engineers Limited (GRSE) is pleased to present to its internal & external stakeholders the Performance Report on the Sustainable Development Projects/Activities executed during the period April 2013-March 2014 as per the MoU commitment with the Department of Public Enterprises, Ministry of Heavy Industries & Public Enterprises, Government of India. In accordance with DPE guidelines total budget amounting to 0.5 % of PAT of FY 2012-13 was allocated to the CSR & Sustainability projects for the year 2013-14. Out of which, total amount of Rs. 44 Lakhs was allocated to the sustainable development projects.

GRSE formulated Sustainable Development policy and a well established Sustainable Development Plan in the year 2012-13 as per DPE-SD guidelines. At the beginning of the financial year 2013-14, the Sustainable Development Project/Activities were identified and approved by the MoU task force and subsequently by the Board of Directors of GRSE. The Sustainable Development Project/Activities aimed towards energy conservation, biodiversity conservation and renewable energy implemented during the year 2013-14. These include conduct of Energy Audit at all GRSE units, Implementation of Recommendations of Energy Audit report in the Yard, Plantation of saplings, Installation of solar powered street lighting systems etc. Assistance of external specialized agencies was adopted wherever required. The targets were set by GRSE for each of the Sustainable Development Project/Activity in terms of completion dates & budget to be spent and approved by Task Force and the Board of Directors.

By putting this report in public domain GRSE wishes to communicate to its internal & external stakeholders, the progress made in the FY 2013-14 in the area of sustainable development and the grade received from the task force upon the evaluation of projects.

Executive Summary

GRSE implemented various Sustainable Development projects Like Energy Audits, Implementation of Recommendations of Energy Audits, Tree Plantation etc. GRSE has taken a strategic & systematic approach by formulating the Sustainable Development Policy & Sustainable Development Roadmap which has not only governed the identification of Sustainable Development Projects for the year 2012-13 and 2013-14 but has also helped in identifying the activities/projects for the period 2013-2017. This policy was approved by Board of Directors during meeting held on 24th August 2012. The detailed Sustainable Development Policy is available on our website: www.grse.nic.in. The detailed Sustainable Development Plan, Monitoring& Review mechanism and the Evaluation Modalities have been given in this report.

About GRSE

Garden Reach Shipbuilders & Engineers Limited (GRSE) is a reputed Public Sector Enterprise functioning under the administrative control of the Department of Defence Production, Ministry of Defence, Govt. of India. GRSE is a premier shipbuilding yard of the country dedicated to the construction of state-of-the-art frontline warships and allied engineering quality goods of strategic importance. In doing so, the Company is committed to exhibit the highest standards of corporate behaviour towards its customers, employees, business partners, the society and the world at large. GRSE business profile includes:

- Shipbuilding and Ship repairing
- Engine Assembling & Testing
- Engineering Products.

GRSE has a total of 8 units of which 7 Units are located in and around Kolkata and 1 Unit at Ranchi, Jharkhand. Disposition of the Units and Product range are as under :

A. At Kolkata (7 Units)

	Division	No. of Units	Product Range
(i)	Shipbuilding & Repair	3	Frigate, Corvette, LST(L), FAC, Inshore patrol Vessel, Fast interceptor Boats Bailey Bridge
(ii)	Engineering 61Park - Bailey Bridge (ISO 9001:2000)	2	Bailey Bridge Ship borne equipment like Winches, Capstan,
	Deck Machinery (ISO 9001:2000)	1	Hydraulic Davit, Helicopter Hangar etc.
(iii)	Training Unit (ISO-9001:2000)	1	Multi-trade training

B. At Ranchi

	Division	No. of Units	Product Range
(i)	Engine Division (ISO-9001:2000)	3	Diesel Engine manufacturing plant

GRSE believes in the concept of Sustainable Development as defined by the Brundtland Commission in 1987 "**development that meets the needs of the present without compromising the ability of future generations to meet their own needs**". GRSE as a Corporate Citizen is committed to take up different developmental projects, as a part of its Corporate Social Responsibility (CSR), towards improving the quality of lives of the underprivileged sections of the society and other stakeholders thereby making a meaningful difference in people's lives and strive to contribute towards sustainable development of the society and become a partner in nation building

GRSE has emerged as a leading shipyard of India, building a wide array of vessels, from **world class Frigates to Fast Interceptor Boats**. In keeping with the global trends, GRSE has embarked upon modernization of its infrastructural facilities.

Corporate Governance

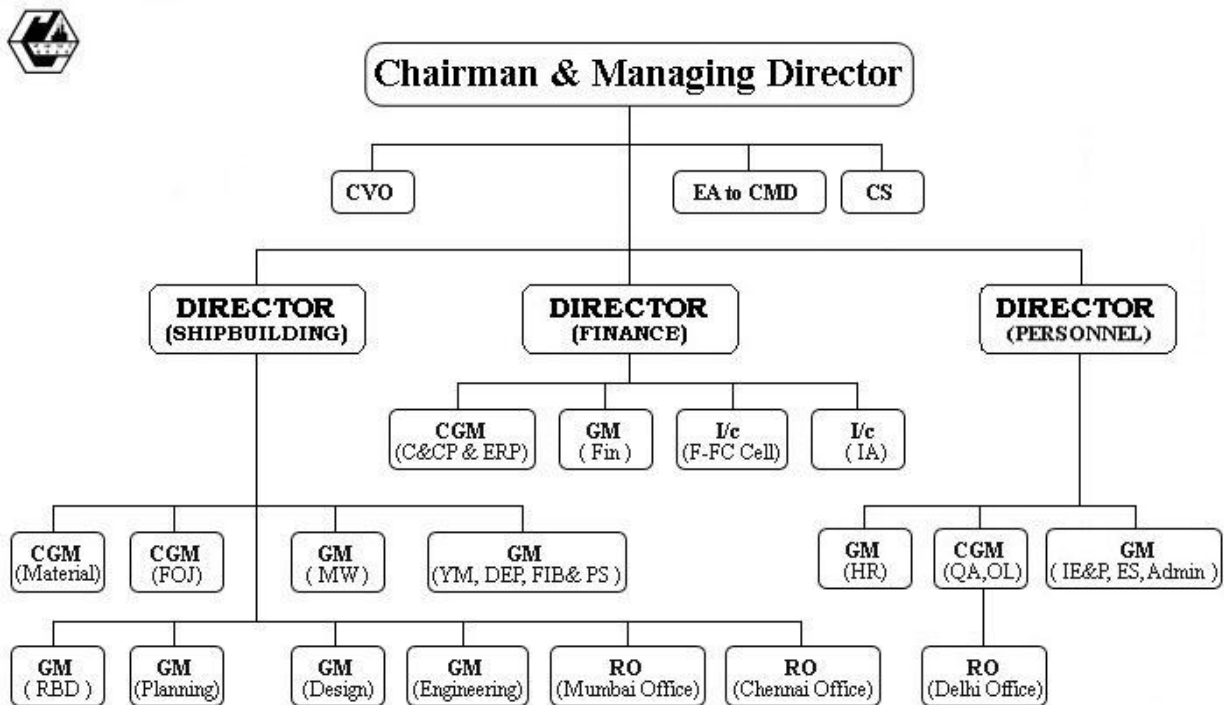
It is the constant endeavor of GRSE to adopt and maintain the highest standards of ethics in all spheres of business activities. GRSE's philosophy of Corporate Governance is based on the principles of honesty, integrity, accountability, adequate disclosures and legal / statutory compliances, to protect, promote and safeguard the interests of all its stakeholders. It strives for maximum level of transparency in decision making and avoids conflicts of interest. It also accords importance to adherence of adopted corporate values and objectives and discharging social responsibilities as a responsible corporate citizen. In keeping with its professional approach, GRSE is implementing the precepts of Corporate Governance in letter and spirit. GRSE's activities are monitored by several external agencies like Statutory Auditors, Comptroller & Auditor General of India, the Central Vigilance Commission, Ministry of Defence, Department of Defence Production etc.

Milestones

- **On 5th Sep 2006, GRSE got the status of Mini Ratna- Category I.**
- **GRSE has won the prestigious Raksha Mantri's Award in 2006-07 for Import Substitution in developing a "Common Helicopter Traversing System" for handling both ALH and Seaking Helicopter and Innovation in "Design & Manufacturing of Double Lane Bailey Bridge for a vehicular load upto IRC Class 70R".**
- **In the year 2007-08, GRSE also won the Raksha Mantri's Award for Import Substitution in "Indigenisation of Centrifugal Pumps of Russian Origin for Warships and Submarines of Indian Navy"**
- **GRSE received the Honorable Raksha Mantri's Award for The Best Performing Shipyard for 2010-11.**

- *The Institute of Public Enterprises, Hyderabad conferred CSR –Corporate Governance Award on GRSE in 2012.*
- *GRSE received “Most Caring Company Award” from World CSR Congress in 2012.*
- *The QC Team of the Company has also executed very well during 2012-13 and won 13 Golds in the National Convention Organized by the Quality Circle Forum of India.*
- *GRSE received ISO 9001:2008 for P.P.Shop of Main Yard.*
- *GRSE achieved Integrated Management System certification from TUV Nord which comprises with three international standard i.e. ISO 14001:2004, OHSAS 18001:2007 & ISO 50001:2011.*

Organizational Structure



GRSE & DPE-CSR & Sustainability Guidelines:

Background:

In the year 2013-14, GRSE signed MoU with DPE to implement CSR & Sustainability guidelines issued by the Department of Public Enterprises, Ministry of Heavy Industries & Public Enterprises, Govt. of India. As per the requirements of the Guidelines, GRSE executed Sustainable development projects/Activities which inter-alia include, among others, following aspects:

- a) Policy and Planning,
- b) Implementation and Operation,
- c) Monitoring and Review,
- d) Project Evaluation,
- e) Performance Evaluation towards MoU.

GRSE formulated Sustainable Development policy in 2012 as per Sustainable Development guidelines issued by DPE. The policy demonstrates the commitment of GRSE towards sustainable development. Due to amalgamation of CSR & Sustainable Development guidelines into combined CSR & Sustainability guidelines in January 2013, GRSE reviewed its CSR & Sustainable Development policy to align it to the requirements of revised guidelines. However, GRSE decided to continue with two different policies on subject matters considering that two different departments shall be implementing these policies. Accordingly, the constitution of Board Level Committee has been restructured to steer the CSR as well as SD projects and activities of GRSE. Given below is the revised composition of committee:

- | | |
|---|------------------------------|
| (a) Independent Director | - Chairman of the committee. |
| (b) Director (Personnel) | - Member |
| (c) General Manager (IE & P, ES, Admin) | - Secretary |
| (d) General Manager (C&CP) | - Permanent Special Invitee |
| (e) All Unit In Charges | - Member |

Our 5-Year Sustainable Development Plan

GRSE has developed its Sustainable Development Plan for the period 2012-2017 aligned to “Guidelines on Sustainable Development” issued by Department of Public Enterprises. The plan entails different Sustainable Development projects/activities to be implemented by GRSE to achieve its Sustainable Development Policy objectives and fulfill its commitment towards Sustainable Development at large. A tentative roadmap for 5 years i.e. FY 2012-17 is given below:

S. No.	Thrust Areas	Projects/Activities	Nature of Project/Activity		
			Long term (> 5 Years)	Medium Term (2-5 Years)	Short Term (0-2 Years)
1.	Waste Management	Reduce/Recycle/reuse waste generated			√
		Cleaner Waste Treatment Processes		√	
2.	Energy Management	Energy audit of all units in Kolkata including Ranchi			√
		Implementation of 60% of the Energy Audit Recommendations	√		
3.	Biodiversity Conservation	Planting of 300 Nos. of tree Saplings of over 6 feet height			√
4.	Carbon Management	Development of Clean development mechanism (CDM) projects	√		
		Carbon Foot Printing		√	
5.	Training	Green House gases (GHG) emission reduction initiatives		√	
		Creating mandatory hours of SD training for employees.	√		

Sustainable Development Projects Identified & Implemented

As indicated in the Sustainable Development Plan above, GRSE identified specific projects/activities to be implemented in the year 2013-14 to meet the policy objectives. GRSE adopted a systematic & gradual approach to reduce energy consumption of the yard in order to minimize carbon emissions indirectly. Further, GRSE also took up renewable energy related projects to show its commitment towards environmental protection and social development at large. The Projects/activities in the thrust areas like Energy Management, Biodiversity Conservation & renewable energy etc were identified and completed within the FY 2013-14. For this purpose, Energy Audits served as the Baseline Survey. Various recommendations were analyzed and broken down in to Short/Medium & long Term Projects for implementation ease. For the FY 2013-14, 60% of the recommendation in the Short & Medium term measures were executed and completed. The projects/Activities were executed seeking external professional help wherever required. To ensure transparency the contracts were awarded through tendering process following extant rule of the shipyard. The list of various projects is given below:

I. Energy Audits at all units of Kolkata

The energy audits were conducted at all units situated in & around Kolkata by an external agency. Out of various recommendations made in the energy audit report, 60% were implemented in the Yard.

II. Implementation of Recommendations of Energy Audits:

For the purpose of implementation the recommendations in the Immediate & Short Term Measures in the energy audit conducted at Main works were implemented. The status for implemented initiatives is given below:

- Replacement of 400W HPMV discharge lamps with 250 W Metal Halide Luminaries at Machine Shop & Pipe Shop
- Replacement of existing 499 no T₁₂ FTL (40 watt) by T₅ FTL (28 watt) for efficient use of energy.
- Installation of 1.5 TR capacity AC Energy Saver
- Supply & Installation of 54 KVA lighting energy saver for bay lights of Modern Hull Shop.
- Installation of energy efficient monoblock pump at Main Pump House by replacing existing energy in-efficient pumps
- Replacement of 400W HPMV discharge lamps with 250 W Metal Halide Luminaries at Plate Preparation Shop, ICER & Security lighting
- Replacement of 300 nos. T₁₂(40W) type FTL with T₈(36 W) type FTL

a) Replacement of 400W HPMV discharge lamps with 250 W Metal Halide Luminaries at Machine Shop & Pipe Shop

Total 98 no Metal Halide luminaries were replaced at the Machine Shop & Pipe shop. Though the procurement was done from external agency installation was carried out utilizing in-house resources.



b) Replacement of existing 499 no T₁₂ FTL (40 watt) by T₅ FTL (28 watt) for efficient use of energy initiative towards.

Total no. of 499 T₅ were procured from external agency following extant rule of the shipyard and installation was carried out through in-house resources only.

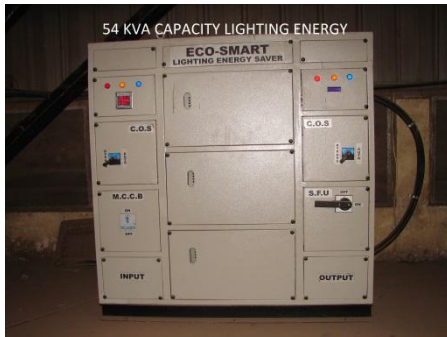


c) Installation of 1.5 TR capacity AC Energy Saver.

Total 25 no. of AC Energy savers were procured from external agency through tendering process following extant rule of the shipyard. However, Installation of the said energy saver was carried out through in-house resources.



- d) **Supply & Installation of 02 no. 54 KVA lighting energy saver for bay lights of Modern Hull Shop.**



All the activities related to supply, installation, commissioning & handing over of the lighting energy saver were done by an external agency following existing procedure of the shipyard.

- e) **Installation of energy efficient (5.5 kw & 7.5 kw) monoblock pumps at Main Pump House by replacing existing energy in-efficient pumps.**

Entire project pertaining to supply, installation, testing & commissioning of monoblock pump was carried out by an external agency and purchase order for the same was awarded to the agency following extant rule of the shipyard.



- f) **Replacement of 400W HPMV discharge lamps with 250 W Metal Halide Luminaries at Plate Preparation Shop, ICER & Security lighting**

Total 98 no. of Metal Halide luminaries were procured from external agency and installation of the same at Plate Preparation, ICER & Security Lighting shops was concluded by utilizing in-house resources.

- g) **Replacement of 300 no T₁₂(40W) type FTL with T₈(36 W) type FTL**

Total 400 no FTLs were replaced utilizing In-House resources as & when required.

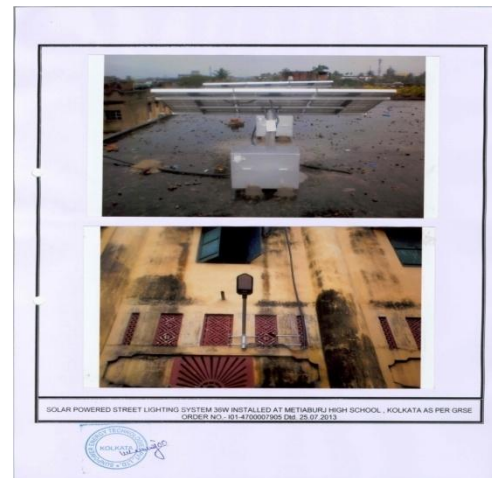
III. Installation of thyristor based Automatic Power Factor Control System (APFC) at Central Sub Station at Main – Unit.

For supply & installation of thyristor based APFC panel at Central Sub Station-Main unit, external agency was identified by GRSE following extant rule of the shipyard.



IV. Installation of LED based Solar power lighting system at Matiabruz High School

Supply, Installation, testing & commissioning of 06 no. 36W LED based solar powered street lighting system at Matiabruz High School was carried out through an external agency.



V. Installation of LED based Solar power lighting system at Sundarban

Installation & commissioning of 06 nos. wall mounted 12V 36W LED based solar powered street lighting system at Community Delivery Centre located in Herambagopalpur Gram Panchayat, Sundarban was carried out through an external agency.



VI Installation of LED based solar power lighting system at RBD Unit

For supply & installation of 10 nos. 36 watt Solar Powered Street Lighting system at RBD unit, tender was invited by GRSE. Subsequently the order was placed on M/s Solace Renewable Energy Private Limited following extant rule of the shipyard. The project was completed by the agency in December 2013.

vi. Plantation of saplings

Total 315 no saplings were planted in the Main Works Area by. Moreover, GRSE awarded annual maintenance contract to the agency to ensure that saplings were taken care of and for other related activities to be done on regular basis.



Resources Allocated

For the effective execution of the projects/activities a departmental committee was constituted. The Board Level SD committee ensured appropriate resources allocation along with supervision on the Projects/Activities. The structure of the Board Level SD Committee has been given in the above.

Project/Activity	Resources			
	Financial (in Lakhs)	Organizational Infrastructure	Technological	Human
Energy Audit	2.7	Meeting room for consultants.	External expert agency conducted energy audit	The Departmental committee coordinated all the activities and provided technical inputs as well wherever required. The supervision & guidance was provided by the Board level committee
Implementation of recommendations of energy audit	32	Meeting room for consultants. Other resources provided as & when required	Specialized external agencies were hired for installation in some cases while material was majorly procured from external agencies.	
Biodiversity Conservation (Tree)	0.92	Plantation activity was	Hiring of Specialized	

Plantation)		carried out at designated areas inside the premises of Main Unit	external agency	
Renewable Energy based projects	9.40	The project was carried out in surrounding community (School & Village) and RBD Unit of GRSE	Implemented by Specialized Agency	
SD Reporting	Prepared Internally			

Modalities for Concurrent & Final Evaluation:

The regular monitoring & review of projects was carried out through a specialized agency by developing a mechanism in terms of performance indicators to gauge the progress made. The top management of GRSE played a key role by reviewing the projects/activities periodically. The regular monitoring of the progress of different SD activities was done by Director (Personnel) through a committee to report the developments to C&MD from time to time. The structure of the Monitoring Committee is as under:-

- | | | |
|---|---|---------------------------|
| a) Chief General Manager (ERP) | - | Chairman of the Committee |
| b) General Manager (HR) | - | Member |
| c) Additional General Manager (ES) | - | Alternate Secretary |
| d) Additional General Manager (Finance) | - | Member |
| e) Sr. Manager (HR) (W&L) | - | Member |
| f) Dy. Manager (Electrical) | - | Secretary |

The final evaluation of SD Projects/Activities was carried out by CII-ITC Centre of Excellence for Sustainable Development selected on L1 basis through a tendering process to maintain transparency. All the projects excluding SD reporting were evaluated by CII-ITC CESD. The Self-Evaluation report entailing status of each project was submitted to the Task Force, DPE for final rating.

SD Projects/Activities Performance Indicators

Since most of the projects were related to Energy Conservation, GRSE had set a target to reduce energy (electricity) consumption by 5% taking 2012-13 as base year. The biodiversity conservation project was undertaken with the objective to increase the green cover in the GRSE premises. The projects related to renewable energy also helped GRSE to achieve energy conservation indirectly leading to reduced GHG emissions.

Indicator 1:

Energy Management

Project Objective: To implement energy (electricity) conservation initiatives as recommended in the energy audits.

OPI: To reduce energy (electricity) consumption by 5% taking 2012-13 as base year

Indicator 2

Biodiversity Conservation

Project Objective: To increase the green belt cover in the GRSE premises

OPI: To plant 300 Nos. saplings of over 6 ft height in the year 2012-13

Indicator 3

Renewable Energy

Project Objective: To promote use of renewable energy thereby reducing electricity consumption & GHG emissions

OPI: To promote renewable energy consumption in the surrounding communities.

Result: Electricity Consumption for the year 2013-14

The electricity consumption at Main Yard for the last 3 years is given below

Year	Electricity Consumption in KWH		
	2011-12	2012-13	2013-14
Quarter 1	638304	1747778	1401760
Quarter 2	789336	1654410	1468054
Quarter 3	419520	1244044	1047223
Quarter 4	538968	1232926	1087594
Total	6621536	5879158	5004631

As a result of these initiatives GRSE, has been able to bring down the electricity consumption by 14.87 % as against the set target of 5 % only. GRSE believes that with the implementation of other recommendation in phase wise manner in the coming years would certainly help further improvement in energy conservation.

Performance Status (Planned Vs. Actual):

No	Name of the Project/Activity	Target (Timeline)		Target (Budget)		MoU Rating
		Planned	Actual	Planned	Actual (Rs.)	
1.	Energy Audits at all units in Kolkata	June 2013	June 2013	5,39,000.00	2,70,000.00	
2.	Implementation of 60 % recommendations of energy audit conducted at Main Works Area					
a.	Replacement of 400W HPMV discharge lamps with 250 W Metal Halide Luminaries at Machine Shop & Pipe Shop	March 2014	January 2014	3,82,409.00	3,81,514.00	
b.	Replacement of existing 499 no T ₁₂ FTL (40 watt) by T ₅ FTL (28 watt) for energy conservation at	March 2014	November 2013	3,02,658.00	3,02,658.00	
c.	Installation of 1.5 TR capacity AC Energy Saver	March 2014	December 2013	1,02,500.00	1,02,500.00	
d.	Supply & Installation of 54 KVA lighting energy saver for bay lights of Modern Hull Shop.	March 2014	November 2013	4,34,227.00	2,68,350.00	
e.	Installation of energy efficient monoblock pump at Main Pump House by replacing existing energy inefficient pumps	March 2014	March 2014	2,41,000.00	2,41,505.00	
f.	Replacement of 400W HPMV discharge lamps with 250 W Metal Halide Luminaries at Plate Preparation Shop, ICER & Security lighting	March 2014	January 2014	3,81,514.00	3,81,514.00	

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g.	Replacement of 300 nos. T12(40W) type FTL with T8 (36 W) type FTL	March 2014	March 2014	17,816.00	17,816.00	
3.	Installation of thyristor based Automatic Power Factor Control System (APFC) at Central Sub Station at Main – Unit.	January 2014	December 2013	16,75,000.00	15,52,590.00	
4.	Plantation of saplings	March 2014	January 2014	93,000.00	92,214.00	
5.	Installation of LED based Solar power lighting system at Matiabruz High School	December 2013	August 2013	3,96,000.00	2,31,054.00	
6.	Installation of LED based Solar power lighting system at Sundarban	December 2013	December 2013	2,31,054.00	2,31,054.00	
7.	Installation of LED based Solar power lighting system at RBD Unit, GRSE	December 2013	December 2013	4,78,170.00	4,78,170.00	
8.	Evaluation of SD Projects	March 2014	March 2014	4,49,440.00	4,49,440.00	
Total Amount				52,74,348.00	50,00,379.00	

Way Forward:

GRSE is committed to sustainable development. Therefore GRSE intends to continue implementing such projects activities towards environmental protection, resource conservation and biodiversity protection in future as well. The progress that GRSE makes towards environment and society development comes from its sense of responsibility and willingness to do the best possible. GRSE is taking appropriate steps to implement other recommendations and initiatives as well to help GRSE to be sustainable now & in future.
