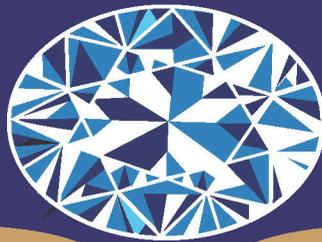




Gem and Jewellery Research and Training Institute

Hidellana, Ratnapura

Annual Report 2012



GJRTI



**Gem and Jewellery Research
and
Training Institute**

Annual Report

2012

Gem and Jewellery Research and Training Institute

Hidellana

Ratnapura

29.09.2013

Hon. Minister of Environment
Ministry of Environment
Sampath Paya,
No. 82,
Rajamal Watta Road,
Battaramulla.

Dear Sir

Annual Report – 2012

In terms of sub section 14 (2) of the Finance Act No.38 of 1971, I submit the following documents.

1. The Administration Report of the Gem and Jewellery Research and Training Institute for the year 2012
2. The Income and Expenditure Statement for the year ended on 31st December 2012, Balance sheet as at 31st December 2012 and Cash Flow Statement for the year ended on 31st December 2012
3. Report of the Auditor General for the year 2012

Yours Faithfully,



.....

Faizal Razeen

Chairman

Gem and Jewellery Research and Training Institute



VISSION

“To Be the Regional Centre of Excellence in Research and Training in the Gem and Jewellery Industry while facilitating the Growth and Development of the Industry in Sri Lanka

MISSION

“To enhance the Competitive capability of Sri Lanka Gem & Jewellery Industry by providing high quality Research & Training services leading to Exploration of Gem Deposits, Technological Innovation, Skill and Competency Development and Quality Improvement for the satisfaction of our Stakeholders”.

2. Brief profile of the Directors and Senior Management

2.1 The profile of the Board of Directors, of the Institute during the year 2012 was as follows.

- | | | |
|----|-----------------------------|--|
| 01 | Mr. Fizal Razeen (Chairman) | Chairman of the Board of Directors since 15.07.2008 to 21.12.2012 |
| 02 | Mr. Indrajith Apponsu | Board Member since 14.05.2010 to 06.08.2012 |
| 03 | Professor N.P. Wijayananda | Board Member since 23.04.2008 to 21.12.2012 |
| 04 | Mr. W.H.M Nimal Bandara | Board Member since 26.04.2012 to 21.12.2012 |
| 05 | Ms. A.D.A.K Nandasena | Board Member since 29.09.2011 to 30.12.2013
(Treasury Representative) |

2.2 Senior Management

Mr. Tilak Dharmaratne - Director General of the Institute
(B.Sc, M.Sc in Gemmology (SL), M.Sc (UK) (01.08.2000 – to date)

3. Review by the Chairman outlining the Opportunities and Constraints faced in the year under review.

3.1 Opportunities

• **Increase in demand for Research and Training.**

The local & International demand for the services of the institution is being increased. The cause for this increment is the high demand for the skilled labourers in this field. Another reason for the rise in this demand is the steps which have been taken to upgrade the quality of service provided by the Institute of Gem & Jewellery. There is no any other institution which provides training services relevant to all aspects of this field. In the same way there is no any service provider fulfilling the research necessities of rapidly developing Northern & Eastren areas.

• **Unfulfilled needs.**

We can still see the unfulfilled needs which have been failed to be completed by the service providers in this field. Systematic Gem ore exploration, recognition of primary gem deposits, recognizing and processing of the technology of extracting primary gem deposits and training for the Computer aided designing & manufacturing of jewellery are included in this.

• **Technological advancements**

There is an opportunity to invent and introduce new machines to excavate gem deposits and to enhance the colour of gems.

• **Growth of the Institute.**

There is a necessity to develop this institute as to a Gem and Jewellery University of Asia Pacific region to provide services to the customers from around the world.

• **Other Facilities.**

This is a pioneer institute for providing service for this field by establishing Geuda Heat Treatment Centers in the other localities and facilitate carrying out researches.

• **Joint Programms for industry Development**

There are opportunities to work in cooperation with other government institutes for various development projects in those, for research projects with National Gem and Jwellery Authority and to encourage eco friendly gem mining techniques practiceable in gem industry with the partnership of environmental authorities.

• **Publicity.**

The programs should be launched to enlighten the public on the service provided by the institution. Awareness programmes, papers and leaflets, audio visual presentations on gem & jewellery can be used.

3.2. Constraints

- **Infrastructure facilities**

The machines and equipments and modern facilities have not been developed sufficiently in the training centers. The steps should be taken to develop the knowledge and skills necessary for the development of the industry through providing such instruments to these training centers. Outsmart machines should be introduced for gem lapidary, gem cutting unit and jewellery manufacture training center. Furthermore a unit to determine the standard of metal should be established and associated courses should be introduced. As diamond cutting is a special part of this industry a training unit should be introduced and steps should be taken for betterment of that industry.

- **Physical Resources.**

A lack of necessary vehicles and equipments to carry out and expand the works of the researches and training section of the institute can be seen. Also modern laboratory facilities are not available at the institute.

- **Laborer mentality of the workers / poor attitudes**

Since recent past the employees are bearing negative attitudes.

- **Duplication of work by sister organizations**

e.g. Our trainings, Lapidary services etc.

- **Human Resources.**

The necessary requirements as in the recruitment procedure of the institute have been fulfilled to fill cadre vacancies according to the Department of Managements circular number 30.

It is a known fact that the number of academic staff members in the institute is not sufficient to meet the existing demand for educational programmes in the industry. This matter of staffs has born with the backgrounds on unavailability of relevant training programmes locally, lack of academically sound personnel in the field are some highlighted reasons. The end result of the situation is not beneficial for the future of the industry, and will be a cause to reduce the demand for trainings. Therefore, the staffs of the institute are required to be given training programmes offered by locally as well as internationally available institutions.

Institute has been facing many administrative difficulties since the time its head office had been established in Rathnapura. As such, necessary actions were taken to bring and establish Head office of the institute in Colombo for effectiveness in operations avoiding the existed administrative problems.

- **Financial Resources**

Sufficient fund contribution to carry out the works of the institute in a spreaded level is not granted by the treasury. The financial provisions needed to recruit the essential staff have not been granted by the treasury.

- **Emerging private sector training institutes.**
The interference of private sector for education and training of gem and jewellery industry has been developed.
- **Lack of incentives to certain sections of the industry.**
e.g. Service cutting section
- **Lack of geologist & training experts.**
- **Lack of training opportunities for researchers and trainers for advance training and the staff gap between the director general, Research staff, Training staff and other supportive staff**

4. Board of Directors Report

4.1 Objective

The Gem and Jewellery Research and Training Institute was established by the gazette notification No 882 of 28 July 1995 in terms of section 25 (1) of the National Gem and Jewellery authority Act No 50 of 1993 enacted for the purpose of the development of Gem and Jewellery industry.

Major objective of the institute is the regulation, improvement and development of the Gem and Jewellery industry by providing the necessary training and research facilities.

4.2 Powers of the Institute

Powers of the institute assigned thereto by the gazette notification No. 882 of 28 July 1995 are as follows.

- (i). To conduct surveys regarding gem minerals and gem deposits in Sri Lanka and to carry out research relating to the followings.
 - i. The location of gem and deposits
 - ii. Their identification
 - iii. Methods of enhancing the value of gem stones.
 - iv. Matters related to other fields concerning the institute.
- (ii). To provide technical and other advices regarding the digging of gem pits, Lapidary, Manufacture of Jewellery and methods of treatment of gem stones for the developing of the Gem and Jewellery industry including the production of machinery required for the industry.
- (iii) To provide training facilities in the following fields.
 - i. Gem Cutting, Polishing and Identification
 - ii. Jewellery Manufacturing

- iii. Gemmology including Diamond
- iv. Jewellery Designing
- v. Colour Enhancement of Gem Stones by Heat Treatment.
- vi. Other matters relating to the Gem & Jewellery industry.

4.3 Activities and Efficiencies

4.3.1 Measures that are crucial for prompting the gem and jewellery training activities in the country were effectively implemented. Accordingly, it was possible to maintain an increment in youth attraction to follow gem and jewellery courses introduced by the institute.

4.4 Educational Training & Research Activities

4.4.1 Progress of the Training Division in the year 2012

During the year, the Institute had conducted many training programmes which have grown a higher demand in the industry for skills and technology. These courses had fulfilled the timely needed such advance skills and technology filling the knowledge gaps of the industry peoples. The scientifically trained these talented students attained the courses gained the right skills and knowledge. The training programmes we conducted will prepare passed out trainees to engage in the Gem and Jewellery field in a very competitive manner in future.

1. In the year, six training centers were functioned meeting regionally identified training needs of the industry. These centers were established in Rathnapura, Colombo, Kandy, Galle, Buttala and Bingiriya areas.
2. Funds were drawn from the institutions such as Sabaragamuwa Provincial Council, Youth Corp Ranger Training Centers, World University Service of Canada (WUSC) – Sri Lanka office to train the members of low-income families as self employees conducting subsidized skills development training programmes.
3. As a parallel activity of the environment day - 2012 programme, a training centre for conducting jewellery courses was opened at Bingiriya divisional secretariat. The funds to establish the centre was drawn by the institute. The training courses introduced were able to meet what the industry people in the area need for meeting skills and technological shortages with them.

4. The Diploma programme: Jewellery Design and Manufacturing Technology course developed to the National Vocational Qualification (NVQ) Level 5 by the institute was obtained full acceptance from Tertiary and Vocational Education Commission (TVEC) ranking this institute as a qualified institution to conduct diploma programmes to the NVQ standards. It has already started the development works of the Gem Cutting and Polishing training programme as well to the NVQ level 4 standards. In future, trainees who will follow these courses are able to be awarded with internationally recognized certificates.

5. In 2012, Institute had a direct participation to 10 major seminar/ exhibition programmes. These functions were conducted in a manner to recognize talented trainees to the gem and jewellery industry.

6. Today, wearing Costume Jewellery is more popular among local customers who attire fashionably. But still, these jewellery are not manufactured by local industry. Hence, to trigger these item productions locally, a training programme was introduced which was designed to give skills and technology.

7. The existing training programmes were introduced new technologies used by the industry. These were also introduced to the training workshops at the beginning of the year 2013.

8. Students training progresses in the year

8.1 Students intake in the year 2012

COURSE	NO OF STUDENTS
Gemmology	103
Geuda heat treatment	51
Gem cutting and polishing	83
Colour grading and marketing	89
Jewellery Designing	34
Jewellery Manufacturing	39
Stone setting	09
Costume Jewellery Designing	24
Grand Total	432

- 8.2 Students passed out is given in the table below. All the courses completed in the year 2012, are tabulated. There are number of training courses started in the year that is scheduled to be ended in 2013.

COURSE	NO OF STUDENTS
Gemmology	30
Geuda heat treatment	51
Gem cutting and polishing	61
Colour grading and marketing	48
Jewellery Designing	16
Jewellery Manufacturing	37
Stone setting	8
Grand Total	243

In addition to the above main outlined achievements as per the action plan of the year 2012, many other make - up works were done as to the support of 2013 projects. Some of those are worth in mentioning which the are accreditation of curriculums, introduction of new technologies, developing courses for new creations of products.

4.5 Human Resource development

	Name	Disignation	Workshop	Institute
01	Mrs.Dammi Rupasinghe	} Management Assistant	Reading & Understanding Financial Statement	Sri Lanka Institute of Development Administration
02	Mr.Asoka Rajaratna			
03	Mrs.Nayana Lakshika			
04	Mr.G Premadasa	} Driver	Office Procedure	Sri Lanka Institute of Development Administration
05	Mr.Maithree Pushpakumara			
06	Mr.Pubudu Nishantha			
07	Mr.Abeyasinghe			
08	Mr.P Hasanga Lakshan			
09	Mr.D Tubaliyadda	} Lab & Filed Assistant	Office Procedure	Sri Lanka Institute of Development Administration
10	Mr.H Rasika Asanaka			
11	Mr.K.J.P Jayanath			
12	Mr.S.K Perera			
13	Miss.H Patirana			
14	Mrs.W.G.J Seneviratna	Management Assistant	Diploma in Software Engineering	University of Sabaragamuwa
15	Mrs.Dammi Rupasinghe	Management Assistant	Diploma in Computerized Accounting	Institute of E-Soft

4.6 Performance of Research Programmes and Projects-2012

Project 01: Exploration and Assessment of Gem Deposits in Sri Lanka (EAGDSL)

Every year gems bring about 80% of the total mineral-based foreign income of Sri Lanka. Recent scientific investigations have revealed that about 50% of the total landmass of Sri Lanka has a potentiality to bear gems. But, identification of gem deposits and their potentiality, capability of mining in sustainable manner with minimum impact to the social and natural environment are key issues in the gem industry.

To address these issues of the gem industry in Sri Lanka, according to the “**Mahinda Chinthana Vision for a New Sri Lanka**” GJRTI proposed an Island wide systematic gem exploration programme to identify gem deposits, evaluate potentiality and to prepare inventories of all gem deposits in Sri Lanka for sustainable exploitation. The main aim of this project is to make gemmological maps covering Sri Lanka available, which will be beneficial to all stake holders of gem and jewellery industry in the country for sustainable development. A comprehensive proposal was submitted to the Cabinet in year 2008 and the necessary approvals and funds have been obtained for the project. The project was commenced in 2010 and it is being progressed in Moneragala District in Uva Province accordingly (Figure 1).

During the reporting period of this report field investigations, Laboratory investigations, GIS and Remote Sensing works, Data interpretation and estimation, Verification of data and preparation of gem potential map were carried out (Figure 2 and 3). Prilliminary gem potential map (Draft) of Buttala Divisional Secretariat area have been completed during 2012 (Figure 4). Currently, it is being continued in other Divisional Secretariat areas in Moneragala District.

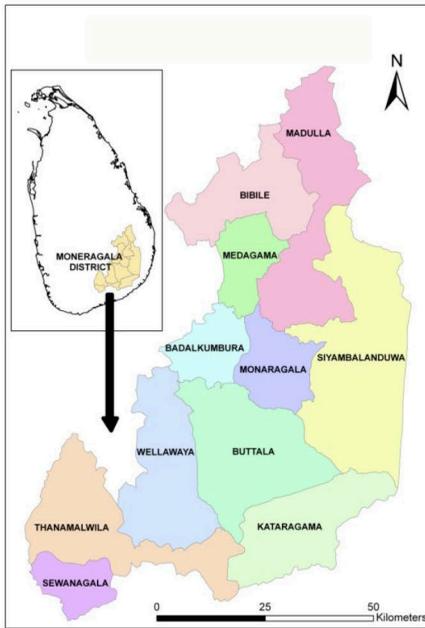


Figure 01: Study Area



Figure 02: Research Team at the field



Figure 03: Samples under Laboratory Investigations

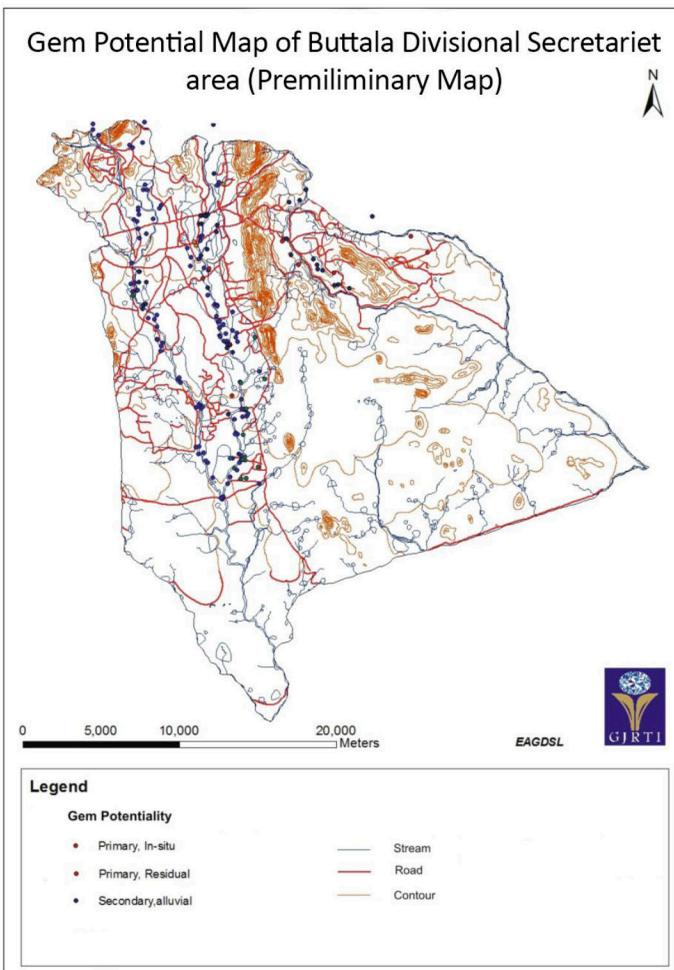


Figure 04

Project 02: Exploration and Assessment Gold Occurrences in Sri Lanka

The main aim of this project is to study petrological, mineralogical and geochemical characteristics of gold occurrences and associated minerals in catchment areas of Kalu Ganga, Walawe Ganga and Kelani Ganga to identify its origin and mineralization mechanisms, and to establish economical viability of gold occurrences in the study area (Figure 05.)

Field investigation, Laboratory investigations has been carried out (Figure 06 and 07).

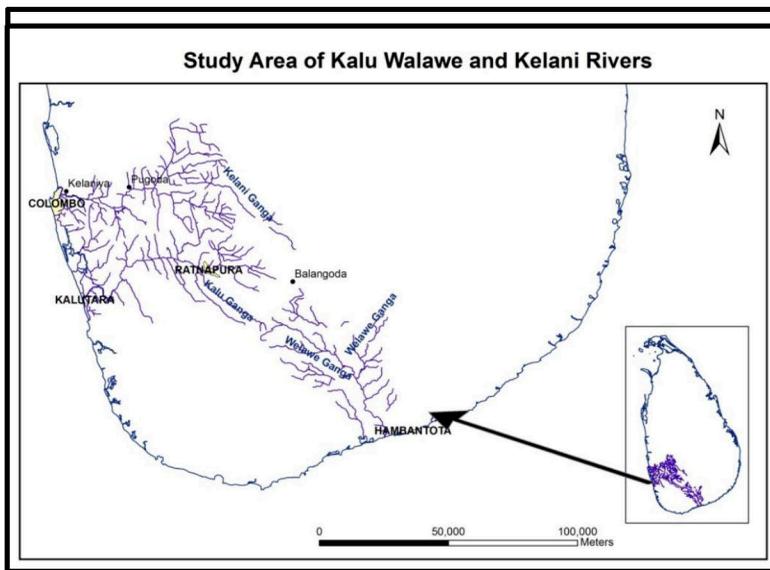


Figure 05. The Study River Basins



Figure 06. Field surveys and collection of samples

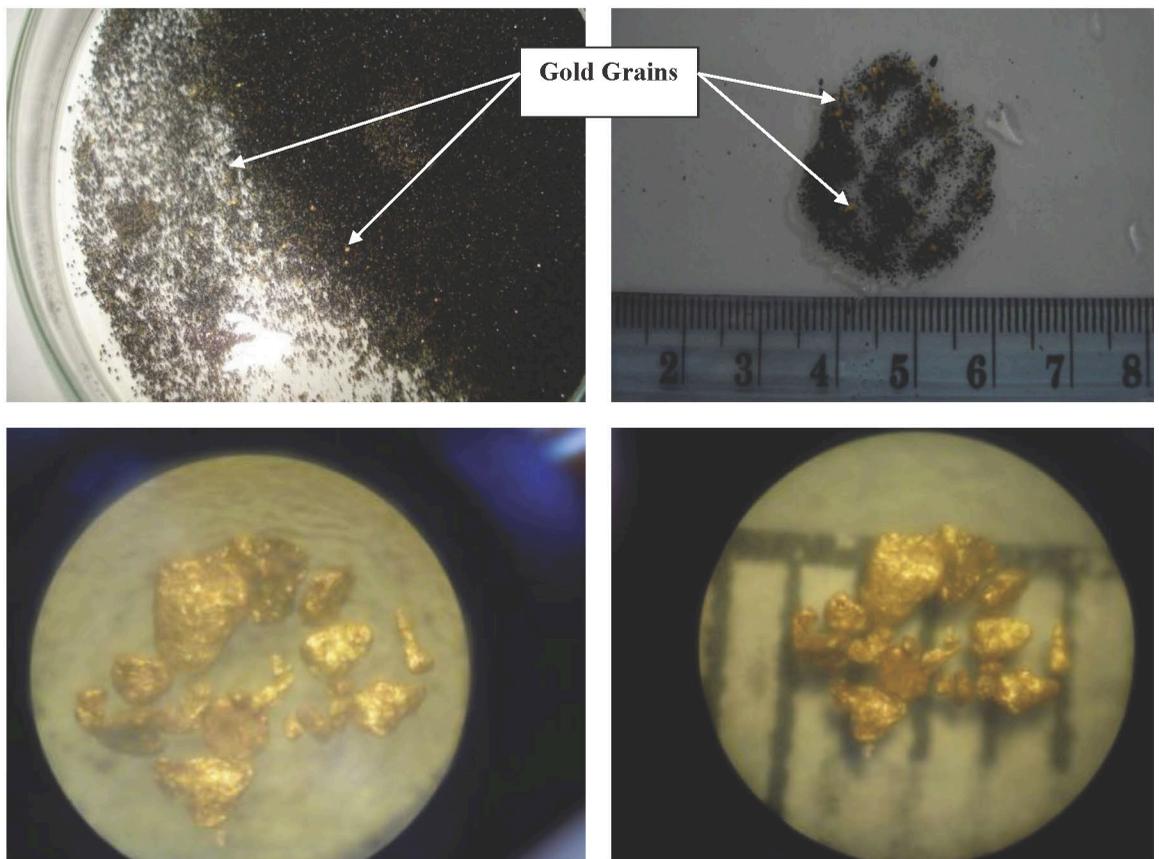


Figure 07. Identified gold grains during laboratory investigations.

It was observed that gold (Figure 07) deposits are occurred as placer deposits in river alluviums.

Project 03: Eco friendly Gem Mining Techniques for Sustainable Development

Gem mining and associated activities inevitably give rise to substantial environmental and social impacts. Management of these impacts in a responsible manner is a big challenge to the industry. Gem mining industry on the other hand, has been trying to contribute in a responsible way while adopting eco friendly practices besides meeting the challenge of societal development.

This project aims to introduce environmental friendly gem mining techniques according to the environmental sensitivity of the area such as natural hazards, climate, geomorphology, soil etc as per **“Mahinda Chinthana Vision for the Future”**. Implementation of the project is arranged as studying all available information on present mining methods and rules and regulations etc, Studying about the present mining methods and their processes and investigation of different eco friendly mining methods for different geological and geomorphological settings, and weathering conditions.

The available information on present mining methods and rules and regulations was studied. (Figure 08) Field visits were carried out to monitor the present mining activities and changes of surrounding environmental conditions.



Figure 08: Observing the present mining activities

04. Publications

An abstract was published using information collected at the field in annual technical sessions of Geological Society of Sri Lanka (GSSL) at 24th Feb. 2012. (Figure 09)

Ground Instability Caused by Gem Mining Activities Practiced in Sri Lanka

W.A.K.C. Wickramaarachchi¹, R.M.N.P.K. Jayasinghe¹, H.M.R. Premasiri²
and Tilak Dharmaratne¹

¹Gem and Jewelry Research and Training Institute (GJRTI), Hidellana, Ratnapura.

²Department of Earth Resources Engineering, University of Moratuwa, Moratuwa.
(email: tilakdharma@yahoo.com)

ABSTRACT

Common gem mining practices in Sri Lanka, such as, shallow mining, deep mining, tunnel mining, river dredging, open cast mining and mechanical mining has a severe impact on structures due to surface subsidence and mass/ground movement. Attempts were made to study these ground movements and related environmental issues in Ratnapura area as a sample study. It was noted that ground movement may occur principally due to two reasons, (a) ground instability (b) changing state of the ground stress.

Open cast mining using heavy machinery causes short term and long term ground movements in response to ground loss during excavation arising from the changes in the state of ground stress as load is transferred from the ground. This horizontal displacement of the support wall at depth results ground movement affecting the constructions at the upper slopes. On the other hand, during dewatering (the lowering of the water table) and sucking for mechanized gravel washing from the mine in alluvial beds, high water-pressure gradients close to the pump can draw finer grains out of the soil. The resulting soil structure is susceptible to collapse-settlements. Further, when ground-water is pumped from pore spaces between grains of sand and gravel, the lowered water pressure in the sand and gravel layers causes slow drainage of water from the clay and silt in gem beds. The reduced water pressure in clay and silt beds change their geotechnical properties and those become more compact, and its effects are seen as land subsidence and cracking in the ground. These changes are often not reversed and remain as permanent damages causing collapsing and cracking in the walls of permanent structures situated around the mines. Underground tunnels and adits sometimes exceed the limits of the mines, with their walls and shafts supported using rubber timber, ferns and areca-nut trees. Gravity and the weight of overlaying strata cause failure of weakly supported walls of abandoned tunnel and adits and incompletely refilled mine shafts often cause ground subsidence.

Therefore, mitigating measures to reduce ground movement using appropriate mining methods, implementing suitable engineering measures and introduction of methods for evaluating the potential impacts to structures have to be introduced. Further, it is important to maintain a database on old, abandoned and currently operating mines to reduce effects on future constructions.

Figure 09: The abstract published in the proceedings of the Annual Technical Sessions of GSSL.

5. Development of Colour Enhancement Method for Sri Lankan Thick Geuda Aid of Heat Treatment and Gamma- Irradiation

Introduction

Optimum heat treatment conditions have been established for different geuda varieties in Sri Lanka to enhance their colour and clarity. However, the optimum condition for thick geuda variety is still not developed. Therefore, in this research we are going to develop a treatment method based on heat treatment and gamma irradiation.

In addition to that, one of the objectives of the project was to develop a method to distinguish between Sri Lankan heated sapphire and non-heated sapphire based on the behavior of Hydroxyl bond in the heated and non heated sapphires.

Progress

Sample Collection & Preparation,

36 low quality/cracked thick geuda samples were purchased through geuda purchasing committee in 2012. The samples were sliced parallel and perpendicular to the optical c axis.



Figure 01. Heat Treated samples in different conditions

Heat Treatment of the samples

Selected samples were heat treated under reducing atmospheric conditions up to 1800 °C and while some samples were heat treated under oxidizing atmospheric conditions at 1800 °C using a gas furnace. The results clearly revealed that, the reducing conditions resulted in dark blue colour and conversely, oxidizing heat treatment did not give better results (Figure 01)

FTIR Analysis,

The absorption spectrums prior to and after the heat treatment were obtained using the FTIR (Fourier transfer Infrared) instrument. These results clearly indicate that the absorptions corresponding to the Hydroxyl (OH-) bonds of the heat treated Sri Lankan Blue sapphire are being resulted in at 3310 °C (figure 02,03). This is not observable prior to the heat treatment. Also this depends on the atmospheric conditions at which the heat treatment is being performed.

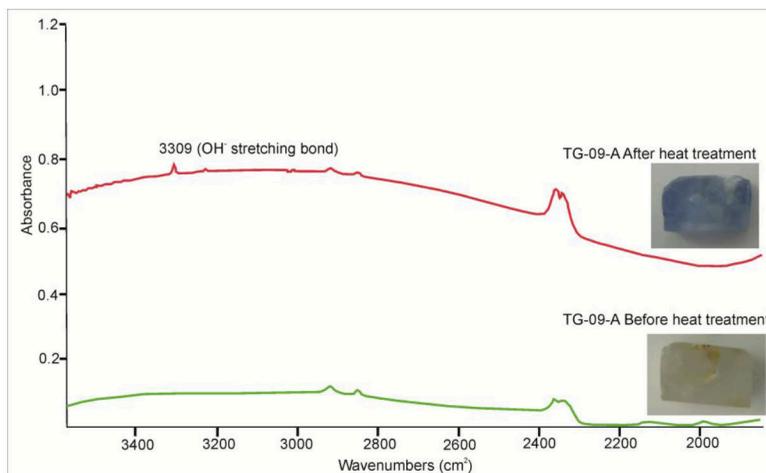


Figure 02. Infrared spectrum of heat treated sample at reducing condition, before and after treatment.

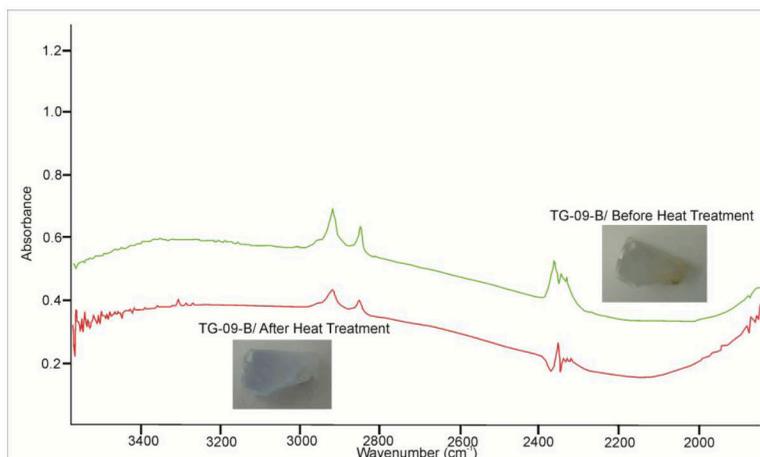


Figure 03. Infrared spectrum of heat treated sample at oxidizing condition, before and after treatment.

Manuscript,

The results are very interesting and research team of the GJRTI and the Institute of Fundamental Studies (IFS) are going to publish a manuscript in a relevant international journal.

Faizal Razeen



Chairman

Gem and Jewellery Research and Training Institute

5. Audited Financial Statement Financial Information for last 05 years

	2008	2009	2010	2011	2012
Operating Revenue					
Treasury Grants	20,228	25,321	25,885	27,420	29629
Other Contributions	6,289	5,330	8,322	12,500	13853
Course Fees	5,597	2,614	2,397	3,256	5228
Income From Services	45	22	24	25	30
Income From Geological Services	-	-	-	-	-
Total Operating Revenue	32,159	33,286	36,628	43,201	48,740
Other Revenue				44	223
Interest	151	69	159	166	309
Other Income	404	194	164	205	140
Total Revenue	32,714	33,750	36,952	43,616	49,412
Less: Expenses					
(a)Personnel and Administration	29,119	26,504	28,629	30,328	35,403
(b)Depreciation and General	7,570	6,402	9,102	12,905	14,217
Total Expenses	36,689	32,906	37,732	43,233	49,619
Surplus/(Deficit)	(3,975)	644	(779)	383	(207)

GEM AND JEWELLERY RESEARCH AND TRAINING INSTITUTE
STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2012
(BALANCE SHEET)

Description	2012	2012	2011	2011
	(Rs.'000)	(Rs.'000)	(Rs.'000)	(Rs.'000)
ASSETS				
Non Current Assets				
Property, Plant & Equipment	23,501		26916	
Gratuity Fund	2240	25,741	1036	27952
Differed Expenditure				
Partitioning & Modification				
Current Assets				
Stock & Consumables	1268		1375	
Less: Provision for Write Off	(648)		(648)	
	620		727	
Books for Sale	105		146	
Loan and Advances	772		661	
Fixed Deposits (Gratuity Fund)	2024		1755	
Deposits	905		880	
Trade & Other receivables	43		47	
Prepayments	285		234	
Bank & Cash Equivalent	3531	8285	2726	7177
Total Assets		34026		35129
Current Liabilities				
Payable	227		230	
Accrued Expenses	3281		3419	
Creditors	119		119	
PAYE Tax Payable A/C	19	3647	12	3781
Non- Current Liabilities				
Control Account - NGJA	3,179		3,179	
Grants-Other Institutions - WUSE	440		162	
Provisions for Gratuity	8,973		7641	
Security Deposit	10	12,602	10	10,993
Total Liabilities		16,249		14,774
Net Assets/Equity		17,777		20,355
Contributed Capital	50,000		50,000	
Reserves	3,000		3,000	
Other Contribution	850		850	
Staff Circulating Fund (Loan)	797		772	
Differed Income –Capital Grants (a)	25,970		28,365	
Accumulated Fund	(62,840)		(62,633)	
Total Net Assets		17,777		20,355

GEM AND JEWELLERY RESEARCH AND TRAINING INSTITUTE

STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED 31ST DECEMBER – 2012

Description	2012		2011	
	Rs.000	Rs.000	Rs.000	Rs.000
Operating Income				
Recurrent Grants - Treasury		29628.5		27,419.5
Other Income				
Income from Training Courses		5227.9		3,255.5
Geuda Heat Treatment Service Charges		30		25
Geological Research services				
Interest Income		309.7		166.3
Sundry Income		140.5		205.4
Total Income		35336.6		31,071.7
Less: Operating Expenses				
Personnel Emoluments		21773.4		18,924.1
Traveling		447.2		437.5
Supplies and Consumable used		1820.3		1,743.6
Maintenance		1335.7		1,642.0
Contractual Services		7974.5		6,467.8
Training Programme Expenses		1308.6		696.5
Other Operating Expenses		719.8		393.3
Total Operating Expenses		35379.4		30,304.8
Surplus / (Deficit) From Operating Activities		(42.8)		766.9
Less: Finance Cost		(23.4)		(22.7)
Grants- Capital Expenditure Portion	6356.1		6,458.6	
Other Receipts				
	6356.1		6458.6	
Less Depreciation and Amortization Expenses	(6720.5)	(364.4)	(6,863.9)	(405.3)
Other Capital Investment Grants	7496.6		6,040.9	
Less: Capital Investment Expenditure	(6155.2)		(5,723.4)	
Improvements of Capital Assets	(1341.5)		(317.5)	
NET Expenditure on Other Capital Investment				
Total Non Operating Revenue		(387.7)		(428)
Add: Gain on Sales of Assets		223.2		44.2
Net Surplus (Deficit) Before Extra Ordinary Items		(207.4)		383.1
Extra Ordinary Items				
Net Surplus / (deficit) for the period		(207.4)		383.1
Add:				
Net Surplus / (Deficit) from previous years	(62632.60)		(62,815.64)	
Less: Prior year Adj.		(62632.6)	(200.0)	(63015.7)
Net Surplus / (Deficit) C/F		(62840.0)		(62,632.6)

GEM AND JEWELLERY RESEARCH AND TRAINING INSTITUTE
STATEMENT OF CASH FLOW FOR THE YEAR ENDED 31ST DECEMBER - 2012
Rs. ('000)

	2012	2011
CASH FLOW FROM OPERATING ACTIVITIES		
Surplus/(Deficit) from ordenary activities	(428)	(431)
Non Cash Movements		
Depreciation	6864	6721
Write off Capital expenses	6041	7497
Deffered Capital Provision	(12500)	(13853)
Increase in Payables	1123	(133)
Increase in Other Non Current Liabilities	(4166)	278
Increase in Provisions Relating to Employee Costs	417	1331
Increase in Other Current Assets	3727	(304)
Creditors		
Net Cash Flows from Operating Activities (a)	1078	1106
Cash Flows from Investigation Activities		
Purchase of plant and Equipment	(1307)	(3305)
Proceeds from sale of Plant and Equipment	(6041)	(1204)
Proceeds from sale of Investments	22	(7497)
Profit from Sale of Plant and Equipment	44	25
Desposal of Assests	129	223
Net Cash Flows from Investing Activities (b)	(7152)	(11758)
Cash Flows from Finasing Activities		
Capital Grant	8692	11457
Special Levy to Government		
Net Cash Flows from Financing Activities (c)	8692	11457
Net Inceze / (Decrease) in Cash and Cash Equivalentts (a)+(b)+(c)	2618	805
Cash and Cash Equivalentts at Beginning of Period	108	726
Cash and Cash Equivalentts at End of Period	2726	3531



විගණකාධිපති දෙපාර්තමේන්තුව
குணக்காய்வாளர் தலைமை அபிபதி திணைக்களம்
AUDITOR GENERAL'S DEPARTMENT

මගේ අංකය }
 எனது இல } SG/RPVF/GJRTI/FA/2012/05
 My No }

ඔබේ අංකය }
 உமது இல }
 Your No. }

දිනය }
 திகதி } 21 January 2014
 Date }

Chairman

Gem and Jewellery Research and Training Institute
 Report of the Auditor General on the Financial Statements of the Gem and Jewellery Research and Training Institute for the year ended 31 December 2012 in terms of Section 14 (2) (c) of the Finance Act, No. 38 of 1971.

 The audit of financial statements of the Gem and Jewellery Research and Training Institute for the year ended 31 December 2012 comprising the balance sheet as at 31 December 2012 and the statement of income, statement of changes in equity and the cash flow statement for the year then ended and a summary of significant accounting policies and other explanatory information was carried out under my direction in pursuance of provisions in Article 154(1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with Section 13 (1) of the Finance Act, No. 38 of 1971 and Section 32(3) of the Gem and Jewellery Authority Act, No. 50 of 1993. My comments and observations which I consider should be published with the annual report of the Institute in terms Section 14 (2) (c) of the Finance Act appear in this report. A detailed report in terms of Section 13(7)(a) of the Finance Act was issued to the Chairman of the Institute on 12 September 2013.

1:2 Management's Responsibility for Financial Statements

 Management is responsible for the preparation and fair presentation of these financial statements in accordance with Generally Accepted Accounting Principles and for such internal control as the management determines is necessary to enable the preparation of financial statements that are free from material misstatements whether due to fraud or error.

1:3 Auditor's Responsibility

 My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Sri Lanka Auditing Standards. Those Standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements.

නො. 306/72, පොල්දූව පාර,
 වත්තරමුල්ල, ශ්‍රී ලංකාව

இல. 306/72, பொல்தூவ விதி,
 பத்தரமுல்லை, இலங்கை.

No. 306/72, Polduwa Road,
 Battaramulla, Sri Lanka

දුරකථනය }
 தொலைபேசி } 2691151
 Telephone. }

ෆැක්ස් අංකය }
 பக்ஸ் } 2697451
 Fax No. }

ඉලෙක්ට්‍රොනික් තැපෑල }
 #- மெயில் } oaggov@slt.net.lk
 E-mail. }

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Institute's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Institute's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of financial statements. Subsections (3) and (4) of Section 13 of the Finance Act, No. 38 of 1971 give discretionary powers to the Auditor General to determine the scope and extent of the audit.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my qualified audit opinion.

1.4 Basis for Qualified Opinion

My opinion is qualified based on the matters described in paragraph 2.2 of this report.

2. Financial Statements

2.1 Qualified Opinion

In my opinion, except for the effects of the matters described in paragraph 2.2 of this report, the financial statements give a true and fair view of the financial position of the Gem and Jewellery Research and Training Institute as at 31 December 2012 and its financial performance and cash flows for the year then ended in accordance with Generally Accepted Accounting Principles.

2.2 Comments on Financial Statements

2.2.1 Accounting Deficiencies

The following observations are made.

- (a) It was proposed to deduct the stocks amounting to Rs.648,000 which has to be recovered further with regard to a fraud committed by a senior manager engaged in the service of the Institute, from the closing stocks for the year under review and to show it as a provision by deducting from the stocks where as it had not been shown in the balance sheet as a balance stocks to be recovered further. Even though it was stated that it had been referred to the Attorney General for taking legal action against him, legal action had not been taken against him even up to 31 October 2013.
- (b) Even though a fixed deposit had been opened on 25 April 2012 by obtaining a sum of Rs.1,000,000 from the savings account of the Gratuity Fund, action had not been taken to debit it to the Gratuity Fund Investment Account and to credit it to the Gratuity Fund Savings Account.
- (c) Action had not been taken to bring 02 vehicles at the value of Rs.11,700,000 registered in the name of the Institute to the accounts under fixed assets.

- (d) Even though the cash outflow of the Employees Gratuity Fund during the year 2012 amounted to Rs.1,165,710, it had been shown in the cash flow statement as Rs.1,204,000.
- (e) Instead of showing the entire amount provided by the Canada World University Project Fund under the income, only the balance of Rs.350,288 out of the above amount, after deducting the expenditure relating to the courses had been brought to accounts as income from the courses.

2.2.2 Lack of Evidence for Audit

Course schedule, source of income and bills for transactions aggregating Rs.6,165,408 relating to 3 items of revenue and one item of expenditure had not been presented for audit due to non-submission of necessary information for audit.

2.2.3 Non-compliance with Laws, Rules, Regulations and Management Decisions

A sum of Rs.219,600 had been paid as lawyers' fees relating to a court case filed personally against the name of the former Chairman of the Institute contrary to Section 6 of Chapter xxxiii of the Establishments Code of the Democratic Socialist Republic of Sri Lanka.

2.2.4 Transactions not Supported by Adequate Authority

The following observations are made.

- (a) A sum of Rs.1,350,000 had been paid as rentals from 01 January 2012 to 05 October 2012 after completion of the agreement period of the building obtained on rental basis for the Training Centre, Colombo.
- (b) Payments for leave not availed by officers and employees of the Institute had been made for them from the inception of the Institute without proper approval of the Treasury and sums aggregating Rs.860,670 had been paid for leave not availed in the year 2011. Provisions amounting to Rs.944,039 had been made under creditors for the year 2012 relating to leave not availed during the previous years.

3. Financial Review

3.1 Financial Results

According to the financial statements presented, the operation of the Institute for the year ended 31 December 2012 had resulted in a deficit of Rs.207,402 as against the surplus of Rs.383,079 for the preceding year thus, indicating a deterioration of Rs.590,481 in the financial results. The increase of personnel emoluments, contractual services, expenditure on training programmes and other operating expenditure by Rs.2,849,300, Rs.1,506,700, Rs.612,100 and Rs.326,500 respectively had mainly attributed for arising deterioration.

3.2 Analytical Financial Review

The total income for the year under review was Rs.35,336,600 which has comprised the Government grants for recurrent expenditure of Rs.29,628,500 and the course income of Rs.5,227,900 whereas the course income had represented 14.79 per cent of the total income. The total expenditure for operating activities amounted to Rs.35,379,400. Other income including the course income had remained at a lower level as a result it was not sufficient to cover the expenditure incurred for operating activities.

3.3 Legal Proceedings Initiated against the Institute

The following observations are made.

- (a) Two court cases were filed against the Institute requesting compensation of Rs.5,200,000 by an employee engaged in the service of the Institute for dismissing him from the service and by an owner of a building for not handing over of building obtained on rental basis within the specified date.
- (b) Two court cases had been filed at the Labour Tribunal against the Institute by two employees engaged in the service of the Institute based on the matters such as retirement from the service due to not reporting duty without notice.

4. Operating Review

4.1 Performance

The following observations are made.

- (a) In terms of Action Plan for the year 2012, two sums of Rs.270,000 and Rs.100,000 respectively had been provided for 3 staff training programmes and for purchase of magazines. However, those programmes had not been implemented.
- (b) It was targeted to implement three development programmes by the Training Division and a sum of Rs.100,000 had been provided in this regard. Of those programmes, the establishment of a Training Centre for “Gem Carving” Training Course and functions relating to the development activities of the subjects concerned had not been implemented.
- (c) Provision of Rs.900,000 had been made during the year under review to conduct conferences and exhibitions. According to the progress report presented, a sum of Rs.348,510 had been spent for 04 exhibitions. Even though there were savings of provisions relating to 04 exhibitions including one village level exhibition for which invitation was received, the Institute had not participated there in.
- (d) According to the Action Plan for the year 2012, provision of Rs.900,000 had been made for preparing video programmes relating to functions of the Institute. Procurement activities of the specified functions only had been carried out up to the end of the year under review by spending Rs.29,230.
- (e) Out of six courses conducted during the year 2012, number of students completed their courses as specified was 243 and number of students registered for those courses was 337. The participation for courses such as jewellery manufacturing, creation of designs and gem cutting and polishing in 02 Centres of Kandy and Buttala had decreased as compared with the preceding year.
- (f) According to the Action Plan, sums aggregating Rs.1,350,000 consisting of Rs.900,000 and Rs.450,000 respectively had been allocated to carry out research on existence of gold deposits at the nearby areas of Walawa Ganga and Kalu Ganga and for the project of mining gem with environment friendly manner. Out of these, a sum of Rs.58,650 had been spent and this project had been stopped in halfway by the month of March 2012 and approval had been granted at the staff meeting to recommence it from the month of September. The progress of these projects had not been reported up to the date of audit in the month of May 2013.

(g) According to the Action Plan, a sum of Rs.900,000 had been allocated for the purpose of collection of 50 samples of various type of Geuda and analysing the composition of chemicals there in and to prepare final report by identifying heat level of 06 samples. Accordingly, 36 samples had been collected and heat level of 02 samples had been identified. Even though a sum of Rs.43,200 had been spent thereon, the expected targets had not been achieved.

4.2 Management Inefficiencies

Two thousand and four hundred copies of annual reports for the years 2009 and 2010 had been printed by spending Rs.188,700 without obtaining approval of the Cabinet of Ministers and those reports had remained at the Institute up to the month of August 2013 without distributing them.

4.3 Matters of Contentious Nature

Security services had been obtained from a private security service and action had not been taken up to the month of February 2013 to renew the agreement entered into with that Institute on 04 October 2005. Even though it was agreed to obtain the services of two senior security officers in terms of agreement, while making payment, a sum of Rs.222,000 had been paid during the year under review outside the agreement at the rate of Rs.18,500 per month to an officer having the post of Special Senior Security Guard.

4.4 Apparent Irregularities

A person had been appointed on contract basis for the post of Specialist Consultant of the Gem Deposit Exploration and Assessment Projection full time basis. In terms of paragraph 03 of the above mentioned appointment letter, Ratnapura is the service station and it was pointed out that the service station will be subjected to changes as per circumstances. The Institute had not possessed information up to the time of audit inspection in the month of June 2013 about the reporting for duty by the relevant Consultant. However, it was ensured at the examination of running charts of the Institute that he had engaged in the project activities only for 9 days during the year 2012. Further, in terms of paragraph 05 of his appointment letter, it was pointed out to pay a consultancy allowance of Rs.85,000 per month and to provide transport facilities from residence for duties and a sum of Rs.849,750 had been paid as allowances during the year 2012 (except for the month of September). However, it was revealed that he is a permanent senior lecturer of the University of Moratuwa. Accordingly, working in two Government institutions on full time basis and obtaining benefit by the Institute through the allowances paid to him were problematic in audit.

4.5 Idle and Underutilised Assets

The following observations are made.

(a) Training courses were being conducted at 06 training centres established within the Island. Thirteen training centres established at various areas of the Island were closed during the period from the year 2006 to year 2011 on the basis of not obtaining provision.

(b) An earth drilling machine had been purchased in the year 2007 at a cost of Rs.12,309,013 whereas a sum of Rs.67,676 had been spent during the year under review to repair and servicing it. Similarly, sums aggregating Rs.410,115 had been spent from the year 2009 to the year 2012 for obtaining insurance coverage relating to that machine. That machine had not been utilised even up to the end of the year under review.

- (c) A set of loud speakers had been purchased on 07 August 2012 for office necessities by spending Rs.25,500 and it had remained idle at the Institute even up to 05 February 2013 without utilising it.

4.6 Delayed Projects

Deficiencies in the Implementation of Gem Deposit Exploration and Assessment Project

The following observations are made.

- (a) Even though the approval of the General Treasury had been received in order to implement the Gem Deposit Exploration and Assessment Project within four year period from the year 2008 to year 2011, it was unable to complete the project activities within the specified period. After obtaining approval for granting funds at the rate of Rs.9 million per year from the provision of 36 million proposed to provide for the relevant activities, a sum of Rs.9,588,630 had been spent for the above project from the year 2007 to year 2012.
- (b) The total expenditure of this project during the year under review was Rs.3,517,442 whereas any operating activities had not been carried out relating to the project during the months of January, August and September. A less amount of Rs.151,901 representing 4.3 percent of the total project expenditure had been spent directly for project survey activities.
- (c) Even though the objective of the Project is to carrying out activities relating to exploration of gem deposit in 8 provinces of the Island within the four years period, the exploration activities were being carried out only in the Moneragala District of the Uva Province up to the date of 31 December 2012. Out of the provision made for this Project, only 26.63 percent had been spent.

4.7 Vehicle Utilisation

The following observations are made.

- (a) A cab vehicle purchased on 06 March 2009 for Rs.5,925,000 had been sent to the relevant agent and other garages from 24 September 2010 to 28 November 2012 and sums aggregating Rs.1,077,058 had been spent in this regard. Recommendation of the Technical Officer had not been obtained for sums aggregating Rs.355,739 spent in 05 instances.
- (b) According to the decision taken at the meeting of the Board of Directors on August 2011, it was decided to auction the vehicle as per recommendation of the Technical Officer of the Ministry due to increase of repairs and maintenance expenditure of the above vehicle. However, a sum of Rs.721,323 had been spent for repairs without doing so even after that date.

4.8 Personnel Administration

There were 83 vacancies as compared with the approved cadre of 133 as at 31 December 2012 and there were vacancies of 69 percent, 64 percent and 50 percent respectively in the posts of staff grade, non-staff grade and minor employees.

5. Accountability and Good Governance

5.1 Corporate Plan 2012 – 2016

Even though the up dated copies of the Corporate Plan approved by the Board of Directors should have been submitted to the relevant institute at least 15 days prior to the commencement of the financial year in terms of Section 5.1.3 of the Public Enterprises Circular No.PED/12 dated 02 June 2003, the Corporate Plan had been approved and sent to the relevant institutes after 06 months of the commencement of the financial year.

5.2 Internal Audit

Approval had been obtained for recruitment to the post of Internal Audit Officer through the letter No.DMS/E/2/33/7/213/3 dated 09 June 2011 of the Department of Management Services. Accordingly, the above recruitment had been made on 01 October 2012. However, sufficient staff had not been attached for internal audit.

5.3 Budgetary Control

There were considerable variances at the range from 34 percent to 100 percent between the estimated and actual income and expenditure thus indicating that budget had not been made use of as an effective instrument of management control.

5.4 Annual Report

Even though the Annual Report should have been tabled in Parliament before exceeding 10 months after end of the financial year in terms of Section 4.3 of the Finance Act No.38 of 1971, action had not been taken even up to 27 June 2013 for tabling the Annual Reports for the years 2009, 2010 and 2011 in Parliament.

5.5 Observations on unresolved Audit Queries

Even though it was informed through parliamentary publications No.119 of 2011 relating to the decision taken at the Committee on Public Enterprises on 08 April 2011, salaries overpaid to the officers with regard to improper increase of salaries of the Institute had not been recovered or had not been placed again at the existing salary scale.

6. Systems and Controls

Deficiencies in systems and controls observed during the course of audit were reported to the Chairman of the Institute from time to time. Special attention is needed in respect of the following areas of controls.

- (a) Implementation of the Project
- (b) Accounting
- (c) Control over Assets
- (d) Budgetary Control

H.A.S. Samaraweera
Auditor General

