



**Gem and Jewellery Research
and
Training Institute**

Annual Report

2016

Gem and Jewellery Research and Training Institute
No.382, New Kandy Rd,
Malabe.
22.03.2018

Hon. Minister of Mahaweli Development and Environment
Minister of Mahaweli Development and Environment
Sampathpaya,
No. 82,
Rajamalwatta Road,
Battaramulla.

Dear Sir

Annual Report – 2016

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 2016
2. Income and Expenditure Statement for the year ended 31st December 2016, Balance sheet as at 31st December 2016 and Cash Flow Statement for the year ended 31st December 2016
3. Report of the Auditor General for the year 2016

Yours Faithfully,



Nawarathna Bandara Alahakoon

Chairman

Gem and Jewellery Research and Training Institute

VISION MISSION & GOALS



VISION

“ To the Regional Center 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 ”

GOALS

“ Harness the Gem Resource of Sri Lanka through sustainable methodologies, introduce innovative methods, and train new set of tradesmen for the industry to up life the country's economy ”

2. Brief profile of the Directors and Senior Management

2.1 The profile of the Board of Directors, of the Institute during the year 2016 was as follows.

01	Mr. Nawarathna Bandara Alahakoon	From 2015.02.24 To Since Today board of chairman
02	Mrs.K.V.R. Olga	From 2015-03-18 To Since To Day member of the board of director (Treasury)
03	Dr. D.M.D.O.K. Disanayaka	Since 2015-02-20 To 2017-06-05 member of the board of director (GSMB Chairman)
04	Mr.M.P.N.M.Wicramasinghe	Science 2015-06-25 To 2017-03-30 member of the board of director
05	M.A.S.P.K Mallawearachchi	Science 2016-11-01 To 2017-10-27 member of the board of director

2.2 Senior Management

Dr.Prasan Fransis

- Director General of the Institute

(B.Sc, Special (Geo.,SL) M.Sc in (Gem.,SL) M.Sc (Petro.,Canada), Ph.D. (Gem.,SL) Dip.Mkt(UK), G.G. (GIA,USA),A.J.P. (GIA,USA), MGA(SL)

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

3.1 Opportunities

- **Increase in the demand for Research and Training.**

The demand for the services of the institution is being increased. The cause for this increment is the high demand for the skilled labour of this field. Another reason to increase this demand is the steps which have been taken to upgrade the quality of the service provided by the Institute of Gem & Jewellery. There is no any other institution which provide training services relevant to all the aspects of this field. In the same way there is no any service provider fulfilling the research necessities of rapidly developed North East areas.

- **Unfulfilled needs.**

We can still see the unfulfilled needs which have been failed to completed by the service providers in this field. These include Gem ore exploration, recognizing primary gem deposits, innovating and processing a technology to extract primary gem deposits and training for designing and computer aided designing.

- **Technological advancements**

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

- **Growth of the Institute.**

There is a necessity to develop this institute as to Gem and Jewelry University of Asia Pacific region to provide service 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 facilitating to carry out researches.

- **Joint Programms for industry Development**

There are opportunities to work co-operation with various development projects of other government institutions such as National Gem and Jewellery Authority and lead in to eco-friendly methods for gem industry with environmental authorities.

- **Publicity.**

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

3.2. Constraints

- **Infrastructure facilities**

The machines, 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 metals 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 the betterment of that industry.

- **Physical Resources.**

A lack of necessary vehicles and equipments to carry out the works of the researches and training section of the institute can be seen.

- **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 service etc.

- **Human Resources.**

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 staff 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 staff of the institute is required to be given training programmes offered by locally as well as internationally available institutions.

- **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.**

4. 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, improvements 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 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 Efficiency

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 increment in youth attraction to follow gem and jewellery courses introduced by the institute.

4.4 Progress of the Training Activities - 2015

During the year this institute was able to conduct many training programs covering range of subject areas of gem and jewellery manufacturing industry. The programs offered were highly appreciated by the industry. This year has recorded an ever highest student intake achievement since the time.

Our students have gained theoretical and very advanced practical knowledge their necessary work with latest technological application usual by the manufacturing plants.

Outline of the activities are as follows;

In the year, nine training centers were successfully functioned. These centers were operated in the areas such as Ratnapura, Colombo, Kandy, Galle, Bingiriya, Polonnaruwa, Jaffna, Moragahakanda, Awissawella, Aththanagalla, Sooriyawewa

1. To overcome severe skilled labor shortage still facing by the gem and jewellery industry, a specially projected training program was introduced with the collaboration of National Gem and Jewellery Authority (NGJA) and Gem and Jewellery Association of Sri Lanka (GJASL) to train jobless youth for the gem cutting and polishing industry.

Another Skill Development Training project was also implemented with funds drawn by treasury for the purpose of training members of low income families. This project has been implemented through the centers in Colombo, Ratnapura, Kandy, Galle, Bingiriya, Moragahakanda and Polonnaruwa.

2. The institute initiated a project to offer a diploma program Jewellery Design and Manufacturing Technology as per National Vocational Qualifications (NVQ) Level 5 standards stipulated by Tertiary and Vocational Education Commission (TVEC). Gem Cutting and Polishing training programme was accredited to the NVQ Level 4 standards. These programs enable students to receive internationally recognized NVQ certificates if followed our courses.
3. Institute has many training workshops and laboratories which are used to give trainings for students. These were continuously upgraded introducing with latest – of- technology applications used by the industry today.

4. Progress of students training activities are follow listed

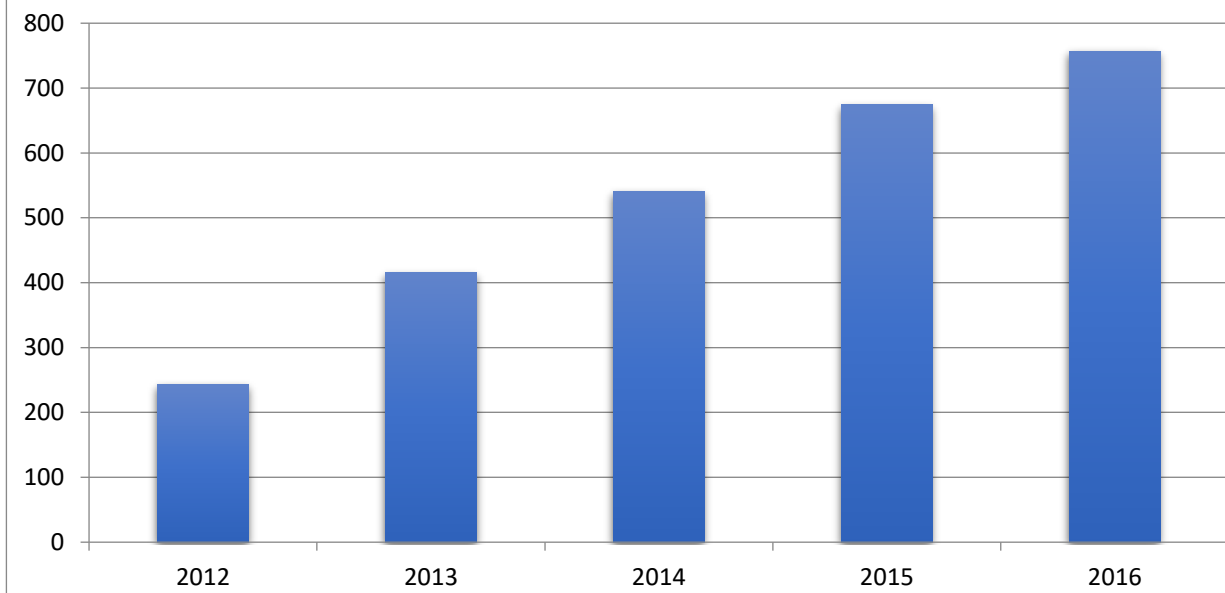
4.1 Students intake in the year 2016 to the courses

	Training Programme	No Of Students
01	Gemmology	97
02	Basic Gemmology	31
04	Geuda Heat Treatment	96
05	Gem Cutting & Polishing	213
06	Colour Grading & Marketing	73
07	Gem Carving	12
08	Jewellery Designing	30
09	Jewellery Manufacturing	63
10	Costume Jewel Manufacturing	48
11	Stone setting	26
12	CAD	20
13	Rough Gem Identification	27
14	Short Course In Basic Lapidary Techniques	21
Grand Total		757

4.2 Record of student progress achieved in last consecutive 5 years.

	Training Programme	Year & Student Pass out					
		2011	2012	2013	2014	2015	2016
01	Gemmology	13	30	43	105	134	97
02	Basic Gemmology	-	-	-	-	-	31
04	Geuda heat treatment	25	51	64	84	96	96
05	Gem cutting and polishing	43	61	76	109	190	213
06	Gem colour grading and marketing	72	48	118	175	157	73
07	Gem Carving	-	-	-	-	-	12
08	Jewellery Designing	30	16	44	18	37	30
09	Jewellery Manufacturing	21	37	40	49	42	63
10	Costume Jewellery Marking	-	-	21	-	18	48
11	Jewellery Stone Setting	8	-	9	-	-	26
12	CAD	-	-	-	-	-	20
13	Rough Gem Identification	-	-	-	-	-	27
14	Short Course In Basic Lapidary Techniques	-	-	-	-	-	21
Total		212	243	415	540	674	757

Grown of the Enrollment



Employee Participation of External Training Programmes - 2016

Training Institute		Name of the training programme	Date	Participants
Skill Development Fund Limited (SDFL)	1	Workshop on "Professional Development of Management & Development Assistants"	3/18/2016	1.Mrs. D.H.K.C.M. Kaushalya (MA) 2.Mrs. D.P.A.P. Kulathunga (MA)
	2	Workshop on "Recruitment Procedure"	2016-03-31 to 2016-04-01	1.Mrs. J.M. Gurusinghe (AD)
	3	Workshop on "Motivation through right attitudes"	4/27/2016	1.Mrs. I.D.N. Priyanjika (MA) 2.Mrs.H.L.S.U. Madanayake (MA) 3.Mr. J.P.K. Sandeep (MA)
	4	Workshop on "Salary Conversions"	2016-06-30 to 2016-07-01	1.Ms. P.A.K.N. Perera (MA) 2.Mr.K.D.R.S. Kumara (MA)
	5	Workshop on "Office management & Office procedures"	2016-08-11 to 2016-08-12	1.Ms. P.K. Wickramarachchi (MA) 2.Ms. M.P.N.M. Wickramasinghe (MA)
	6	Workshop on "Procurement & Evaluation of IT products"	2016-08-30 to 2016-08-31	1.Mrs. M.K.C. Jayamali (RO) 2.Ms. S.R.P. Senevirathne (IDO) 3.Mr. J.P.K. Sandeep (MA)
	7	Workshop on "Effective managerial skills"	2016-09-26 to 2016-09-27	1.Mr. R.M.N.P.K. Jayasinghe (Head-R) 2.Mr. S.L.J. Muhandiram (AD-F)
	8	Workshop on "Effective internal auditing"	2016-10-13 to 2016-10-14	1.Mrs. H.A.N. Priyadarshani (IA)
	9	Workshop on "Duties and responsibilities of office aids"	2016-12-19 to 2016-12-20	1.Ms. E.H. Pathirana (PL) 2.Mrs. Rumesi Rangika (PL) 3.Mr. S.A.S. Nidharshana (PL) 4.Ms. G.R.K.I. Jayawardane (PL) 5.Mr. K.G.M. Asanka (PL)
University of Colombo - Institute of Human Resource Advancement (IHRA)	10	Workshop on "Attitudes and Skills Development"	6/10/2016	1.Ms. P.A.K.N. Perera (MA) 2.Mrs.H.L.S.U. Madanayake (MA) 3.Mrs. H.L.L. Janithri (MA)
National Productivity Secretariat	11	Workshop on "Basic productivity programme"	5/3/2016	1.Mr. J.D.S. Randimal (PL) 2.Mr. S.P.D.P. Kamalsiri (PL) 3.Mr. W.A.N.S. Kumara (PL) 4.Mr. K.G.M. Asanka (PL)
Construction Equipment Training Centre	12	Workshop on "Scientifically, Economical and Safety driving methods"	9/6/2016	1.K.M.S.M. Abeysundara (Driver) 2.P.M. Chaminda (Driver)
Sri Lanka Accreditation Board of Conformity Assessment (SLAB)	13	Workshop on "Making accreditation mandatory in taking technical decisions"	9/1/2016	1. Mr.S.V.T.D. Raveendrasinghe (RO)
Institute of Chartered Accountants Sri Lanka (ICASL)	14	Workshop on "Sri Lanka public sector accounting standards (SLPSAS)"	2016-08-11 to 2016-08-27	1.Mr. S.L.J. Muhandiram (AD-F)

Research Projects

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

The project is being conducted Divisional Secretary areas in Monaragala District in Uva Province (Figure 1).

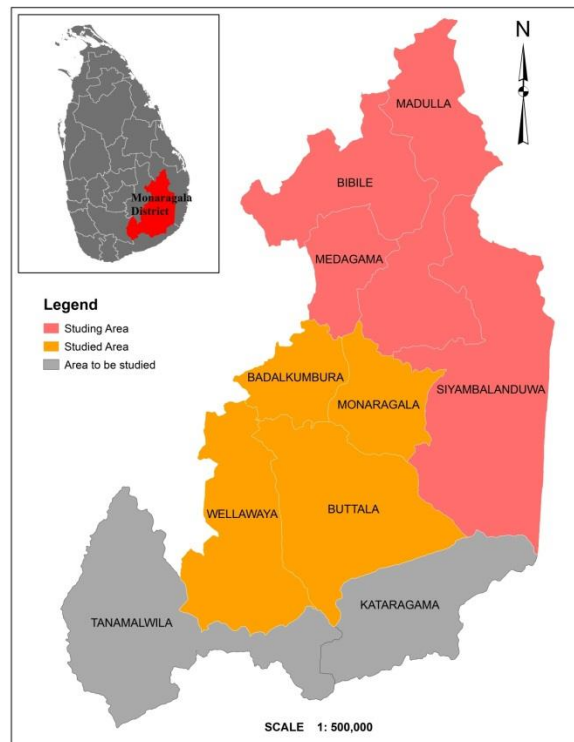


Figure 1. Study of DS Divisions in Moneragala District

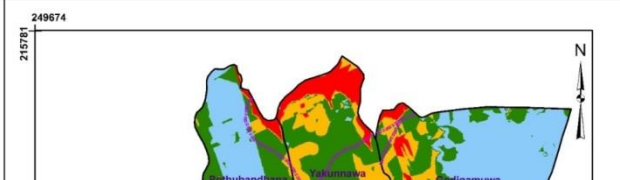
Field investigations of Siyabalanduwa DS, Madagama DS, Bibila DS and Madulla DS were carried out in 2016. After wards, laboratory investigations, GIS and remote sensing works, data interpretation and estimation, verification of data, preparation of gem potential maps and detail reports are carried out. A summary of progress in each division can be given as follows.

1.1 Siyambalanduwa DS and Madulla DS

By the end of year 2016, field investigations, laboratory investigations, GIS and remote sensing works, data interpretation and estimation, verification of data. No sizeable evidences are found from laboratory analysis in favour of any gem occurrences in the area. It could be concluded that no gem potential or least potential areas are present within the whole division with respect to the study that suitable for economic gem mining. Finally, preparation of the 1st draft of final report was completed.

1.2 Madagama DS

Madagama DS division consists of 35 Grama Niladari divisions and 121 villages covering an area of 245.14 km². Information gathered from all the investigations was inserted into the basic gem potential map which is used to identify gem potential areas clearly. As of 2016, gem gem potential out of 35 the competed (Figure



map of 10 GN Divisions Madagama DS have been 2).

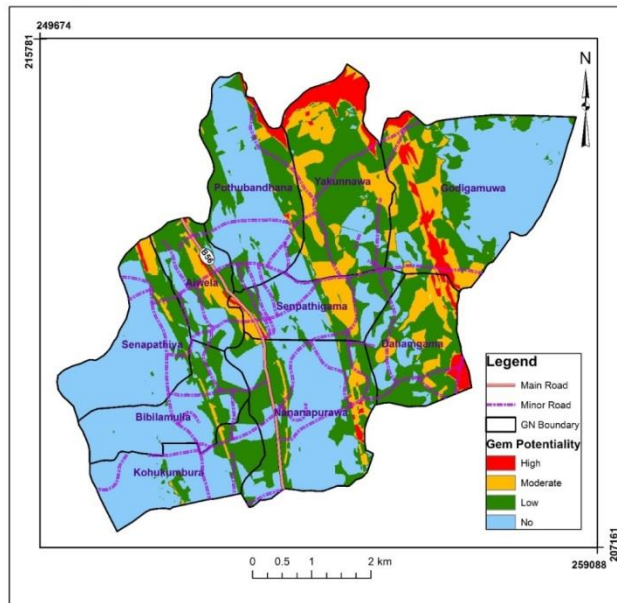


Figure 2. Final gem potential areas in 10 GNDs at Medagama DSD

1.3 Bibila DS

The project is completed up to detailed gem potential mapping and confirmatory augering during which 374 locations were studied (Figure 3). The samples are under analysis and the report is under

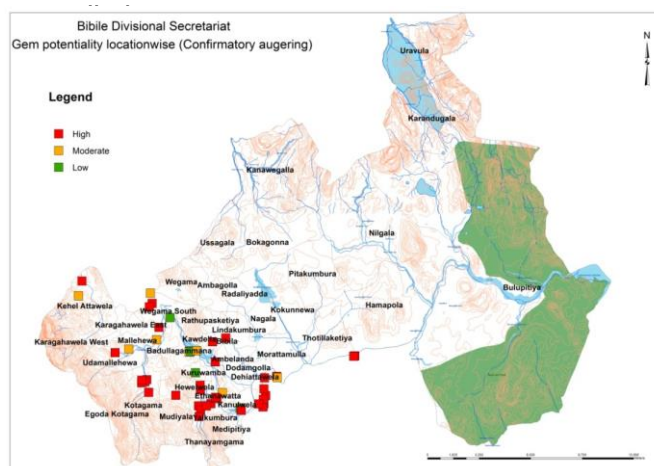


Figure 3. Auger sample locations of the Bibile DSD according to the gem potentiality

Project 02: Value Enhancement of low quality gemstones

2.1 Geuda heat treatment

Under the “value addition of Sri Lankan geuda project”, development of a method to enhance colour and clarity of Sri Lankan thik-geuda was started as the 1st stage of the project. 1st batch of thik-geuda samples were purchased and pre-heat treatment chemical analysis of those samples were completed.

2.2 Gemmological perspective of ancient Sri Lankan intaglios, cameos and beads

The artefacts were analysed using gem identification tests ranging from specific gravity, Refractive Index measurement (RI), Fourier Transform Infrared spectroscopy (FTIR) to x-ray fluorescence spectroscopy (XRF). The numerical and graphical data acquired are undergoing interpretation to reveal gem material from which the said artefacts were crafted (Figure 4). These findings will be published as a booklet.

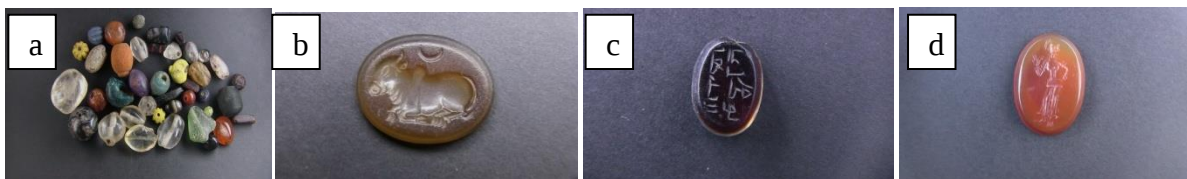


Figure 4. (a) Beads (b)(c) and (d) Intaglios depicting an ox, Brahmi letters and a female dancer.

2.3 Value Enhancement of low-quality Moonstones



In this project, critical conditions such as temperature and reducing conditions required to produce high quality raw materials for carving moonstones were identified. The objective was to promote home based carving industry by introducing value addition methods for low quality raw materials to produce high

quality products (Figure 5)

Figure 5. Value added raw materials for carving industry

2.4 Value Enhancement of low gem quality Zircon in Sri Lanka

Rough samples were cut in to three slices along crystallographic c-axis as thin platelets and both side of the cut pieces were polished (Figure 6) The color change of the zircon samples after heat treatment in the reducing atmosphere are shown in Figure 26. Yellowish green to green color was observed in the samples subjected to heat treatment at reducing conditions. Moreover, heat treatment at 900 °C at reducing atmospheric condition showed the optimum color improvement with better clarity.



Figure 6. Image is showing left- unheated low value zircon samples, middle- heated samples in reducing atmospheric condition and right- heated cut and polished samples.

A manuscript based on these findings is ready to submit for journal of Gems and Gemmology.

2.5 Value Addition towards Sri Lankan Gem Zircon via Heat Treatment

Reddish brown zircon turned into pale blue colour when treated at 1100⁰C within strong reducing atmospheric condition incorporating Lakmini gas furnace (Figure 7) whereas clarity remained unchanged.



Figure7. Reddish brown zircon became blue when treated at 1100⁰C in reducing atmosphere

Greenish zircon turned into pale blue colour when treated at 1750⁰C in reducing atmosphere incorporating Lakmini gas furnace (Figure 8) whereas clarity remained unchanged.



Figure 8. Greenish zircon became pale blue when treated at 1750⁰C in reducing atmosphere

Project 03: Private Lands Investigation for Gem Potential

Under this project, providing comprehensive, scientific analytical reports and relevant maps on new gem deposits in lands owned by government plantation companies and private individuals are being carried out. There are three investigations carried out in the areas of Kapugoda, Waga and Godakawela within concerned time period according to the requests made by the private land owners;

- W.G. Permarathana, 180, Giridara, Kapugoda
- W.D. Persi Daysiri, 134, Neluwatthudywa, Waga
- G.N.P Perera, No 03, Isthambu palce,Colombo 03

4. High Tec analytical services

- Dr. Jagath Pitawala, Senior Lecturer, Department of Science and Technology, Uwa Wellassa University -16 Samples, XRF analysis and Laser Diffraction Particle Size Analysis.
- Prof. H.M.T.G.A Pitawala, Department of Geology, University of Peradeniya - 13 Samples, XRF analysis

5. Workshops

- Rathnapura Geuda Heat treatment Workshop - NGJA Auditorium

6. Exhibitions

- **Exhibition Stalls at BMICH**
 - ✓ FACET - 2016.09.01, 02,03,04
 - ✓ NEXT - 2016.10. 17,18,19
 - ✓ JEWELLES- 2016.12. 16,17,18

7. Joint programme with other institute

- පරිසර අධ්‍යයනය පිළිබඳව නව විෂය නිර්දේශයට අනුකූලව පාසල් ගුරුභවතුන් දැනුවත් කිරීමේ ව්‍යාපෘතිය.
- NSF Technical Grant No TG/2016/Tech-D/05 Received. (Agreement signed)
- CECB Agreement for drilling
- Steering committee member of MINAMATA convention activities

8. Other activities

- High Temperature Electric Furnace feasibility studies overnight. (Over 24 Hrs)
- Geuda Heat treatment course conducted at Rathnapura and Malabe.
- Opening of geuda heat treatment service center in Ratnapura

- ❖ To provide geuda heat treatment service to the people who are involved in the geuda industry, a geuda heat treatment service center was opened in Ratnapura National Gem and jewellery Authority premises. Through that service center, several geuda heat treatment services were provided and the center is in well operation currently.

9. Publications

Based on the projects of Exploration and Assessment of Gem Deposits in Sri Lanka and value addition of low quality gemstones, there are number of research articles were published in local and international journals as well as magazines. And also, two books were published end of the year 2016.

1. R.M.N.P.K. Jayasinghe, M.K.C. Jayamali, S. Wijewardane, G.G.M.S.Wickramasinghe and R.M.S. Dharmasiri, 'Value addition of Sri Lankan Gemstones.', ISBN 978-955-8382-02-8.
2. ආර්.එම්.එන්.පී.කේ .ජයසිංහල එම්.කේ.සී ජයමාලී ,එස් .විජේවර්ධන, ජී.ජී.එම්.එස් .වික්රමසිංහ සහ ආර්.එම්.එස් .ධර්මසිරි. **“ගැඹිලිකාවේ මැණික්වල අගය ඉහල නැංවීමේ තාක්ෂණය”** ISBN 978-955-8382-03-5.
3. W.M.M.P.E. Bandara, M.K.C. Jayamali, J. Gunatilaka and P. Francis, 'Applications of Spatial and Statistical Methods for Gem Potential Mapping- A case study from Moneragala District- Sri Lanka(Abs.). ', Proceedings of the PGIS Research Congress Symposium 2016 of the Post Graduate Institute of Science, University of Peradeniya, Sri Lanka, 2016, Paper ID 132.
4. M.K.C. Jayamali, W.M.M.P.E. Bandara, J. Gunatilaka, P. Francis, R.M.N.P.K. Jayasinghe and R.M.S. Dharmasiri, 'Gem potential mapping based on Geographical Information Systems (GIS): A case study from Medagama, Moneragala district, Sri Lanka'. Journal of Geological Society of Sri Lanka Vol. 18 (2016- manuscript accepted).

5. S.V.T.D. Raveendrasinghe, 'Occurrence of Andalusite and Chiastolite In Balanthota - Ginigathena Sri Lanka (Abs.). Proceedings of the 32nd Technical Session of Geological Society of Sri Lanka (GSSL): 8.
6. W.G.C.N.Wewegedara, Prashan Francis 'Value addition of Sri Lankan gem zircon via heat treatment' (Abs.). Proceedings of the Sri Lanka NEXT - A Blue - Green Era Conference and Exhibition, 2016: 7,8.
7. ගෘහිකලා ධර්මසිරි ,මැණික් පතල් කැණීම් කර්මාන්තය හා බැඳුණු පාරිසරික බලපෑම් ,හෙළමිණි වරුණ ,3 වන කලාපය)2016 ඔක්තෝබර්(, මැණික් හා ස්වර්ණාභරණ පර්යේෂණ හා අභියාසා ආයතනය.
- 8 එස්.විජේවර්ධන ,නුවරඑළිය අභගමුව කෝරළයට අනවසර මැණික් කැණීමෙන් සිදුව ඇති පාරිසරික හානිය ,හෙළමිණි වරුණ ,3 වන කලාපය)2016 ඔක්තෝබර්(, මැණික් හා ස්වර්ණාභරණ පර්යේෂණ හා අභියාසා ආයතනය.
- 9 ඩබ්.ජී.සී.එන්.වැවේගෙදර ,මැණික් පාෂාණ හඳුනා ගනිමු ,හෙළමිණි වරුණ ,3 වන කලාපය) 2016 ඔක්තෝබර්(, මැණික් හා ස්වර්ණාභරණ පර්යේෂණ හා අභියාසා ආයතනය.
- 10 එම්.කේ.සී.ජයමාලි ,මැණික් කර්මාන්තය හා බැඳුණු පතල්කරුවන්ගේ ජීවිකාව ,හෙළමිණි වරුණ ,3 වන කලාපය)2016 ඔක්තෝබර්(, මැණික් හා ස්වර්ණාභරණ පර්යේෂණ හා අභියාසා ආයතනය.
- 11 R.M.T.D.Madusanka, D.T. Jayawardana and R.M.N.P.K. Jayasinghe, Fourier Transformation Infrared (FTIR) Spectroscopy Analysis of Soil Organic Matter in an alluvial Type Gem Deposits in Pelmadulla, Sri Lanka. (Abs.), Proceedings of the 21st International Forestry and Environment Symposium 2016, Paper ID 236.

Financial Information for last 05 years

	2012	2013	2014	2015	2016
Operating Revenue					
Treasury Grants	29,629	32,113	43,357	47,081.0	58,627.0
Other Contributions	13,853	13,020	13,862	26,447.4	33,522.7
Course Fees	5,228	3,949	6,941	6,408.5	9,445.4
Income From Services	30	15	-	-	50.3
Income From Geological Services	-	-	-	-	
Total Operating Revenue	48,740	49,097	64,161	79,936.9	101,645.4
Other Revenue	223	38	303	625.8	
Interest	309	406	309	248.2	342.6
Other Income	140	54	-	49.5	837.0
Total Revenue	49,412	49,595	64,773	80,860.4	102,825
Less: Expenses					
(a)Personnel and Administration	35,403	37,260	44,558	57,081.4	68,467.8
(b)Depreciation and General	14,217	13,452	17,572	31,260.6	27,769.4
Total Expenses	49,619	50,712	62,130	88,342	96,237.2
Surplus/(Deficit)					
	(207)	(1,117)	2,643	7,481.6	6,587.8

GEM AND JEWELLERY RESEARCH AND TRAINING INSTITUTE
STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED 31ST DECEMBER -2016

	2016 (Rs.'000)		2015 (Rs.'000)	
Operating Income				
Recurrent Grants - Treasury		58,627.0		47,081.0
Other Income				
Income from Training Courses		9,445.4		6,408.5
Geuda Heat Treatment Service Charges		50.3		-
Geological Research services				-
Interest Income		342.6		248.2
Sundry Income		837.0		625.8
Total Income		69,302.2		54,363.5
Less: Operating Expenses				
Personnel Emoluments		35,477.3		31,356.7
Traveling		316.7		510.6
Supplies and Consumable Items		2,983.4		1,382.8
Maintenance Expenses		4,054.7		4,600.4
Contractual Services		18,428.8		16,293.6
Training Programme Expenses		6345.8		2,452.8
Other Operating Expenses		825.2		458.6
Total Operating Expenses		68,431.9		57,055.5
Surplus / (Deficit) From Operating Activities		870.3		(2,692)
Less: Finance Cost		(35.9)		(25.9)
Grants- Capital Expenditure Portion	26,131.5		21,027.0	
Other Receipts			-	
	26,131.5		21,027.0	
Less: Depreciation and Amortization Expenses	(20,378.2)	5,753.3	(25,840.2)	(4,813.20)
Other Capital Investment Grants				
Less: Capital Investment Expenditure	7391.2		5,420.4	
Improvements of Capital Assets	(6,064.9)		(4,800.9)	
NET Expenditure on Other Capital Investment	(1,326.3)		(619.5)	
Total Non-Operating Revenue		5,717.5		(4,839.10)
Add: Gain on Sales of Assets				49.5
Net Surplus (Deficit) Before Extra-Ordinary Items		6,587.8		(7,481.60)
Extra Ordinary Items				
Net Surplus / (deficit) for the period		6,587.8		(7,481.60)
Add:				
Net Surplus / (Deficit) from previous years	(70,086.70)		(61,463.97)	
Less: Prior year Adj.		21,522.3		(1,141.1)
Net Surplus / (Deficit) C/F		(41,976.6)		(70,086.70)

GEM AND JEWELLERY RESEARCH AND TRAINING INSTITUTE
STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER - 2016

Description	2016	2016	2015	2015
	(Rs.'000)	(Rs.'000)	(Rs.'000)	(Rs.'000)
ASSETS				
Non Current Assets				
<u>Property, Plant & Equipment</u>				
Contribution (LT)	124,814		53,110	
Gratuity Fund	502	125,315	252	53,362
Differed Expenditure				
Partitioning & Modification				
Current Assets				
Stock & Consumables	2313		833	
Less: Provision for Write Off			(648)	
			186	
	2313			
Books for Sale	2		24	
Loan and Advances	2631		1,984	
Deposits (Gratuity)	4095		3,805	
Deposits	2810		2,700	
Trade & Other receivables	2088		615	
Prepayments	496		198	
Bank & Cash Equivalents	839	15,274	29,697	39,210
Total Assets		140,589		92,573
Payable	408		358	
Accrued Expenses	2147		4,083	
Creditors			119	
Paye Tax			4	
Payable Compensation			231	
Payable Gratuity Fund to c/a		2555	373	5,168
Control Account - NGJA	3179		3,179	
Grants-Other Institutions	232		232	
Provisions for Gratuity	10110		9,211	
Staff Security Deposit	10	13,531	10	12,632
		16,086		17,801
Net Assets/Equity		124,503		74,772
Contributed Capital		50,000		50,000
Reserves				4,500
Other Contribution		850		850
Staff Circulating Fund (Loan)		978		882
Differed Income –Capital Grants (a)		114,652		88,626
Accumulated Fund		(41,977)		(70,087)
Total Net Assets/Equity		124,503		74,772

GEM AND JEWELLERY RESEARCH AND TRAINING INSTITUTE
STATEMENT OF CASH FLOW FOR THE YEAR ENDED
31ST DECEMBER – 2016

	2016	2015
Cash Flows From Operating Activities		
Surplus/(Deficit) from Operating Activities	6,587.8	(7,531.1)
Non Cash Movements		
Depreciation	20,378.2	25,840.2
Write-off Capital Expenses	7391.18	5,420.4
Differed Capital Provision	(33522.7)	(26,447.4)
Prior Year Adjustment	6926.6	(2,717.9)
Increase/Decrease Payables	(2381.7)	2,213.0
Increase in other Non current Liabilities	667.6	0
Increase in Employee cost		(697.0)
Increase in Other Current Assets	(4922.6)	(1,249.0)
Net Cash Flow from Operating Activities	1123.7	(2,450.9)
Cash Flow from Investment Activities		
Purchase of Property Plant and Equipment	(77,485.4)	(11,340.0)
Increase of Gratuity Fund	(249.7)	1,611.0
Sales Of Investment	96.0	48.0
Capital Nature Expenses	(7391.2)	(5,420.4)
Decrease Reserves	(4500)	-
Sales of Fixed Assests	-	1,128.0
Net Cash Flow from Investment Activities	(89,530.3)	(13,973.4)
<u>Cash Flow from Financing Activities</u>		
Capital grant	59,548.5	29,826.2
Special Levy to Government		
Net Cash Flow from Financing Activities	59,548.5	29,826.2
Net Increase /(Decrease) in Cash and Cash Equivalents (a)+(b)+(c)	(28,858)	13,402.0
Cash and Cash Equivalents at Beginning of period	29,697	16,295.0
Cash and Cash Equivalents at End of Period	839	29,697.0