



# ANNUAL REPORT - 2016

**Postgraduate Institute of Agriculture  
University of Peradeniya**

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## **VISION**

To be a globally competitive centre of excellence in postgraduate education and research in agriculture and related fields.

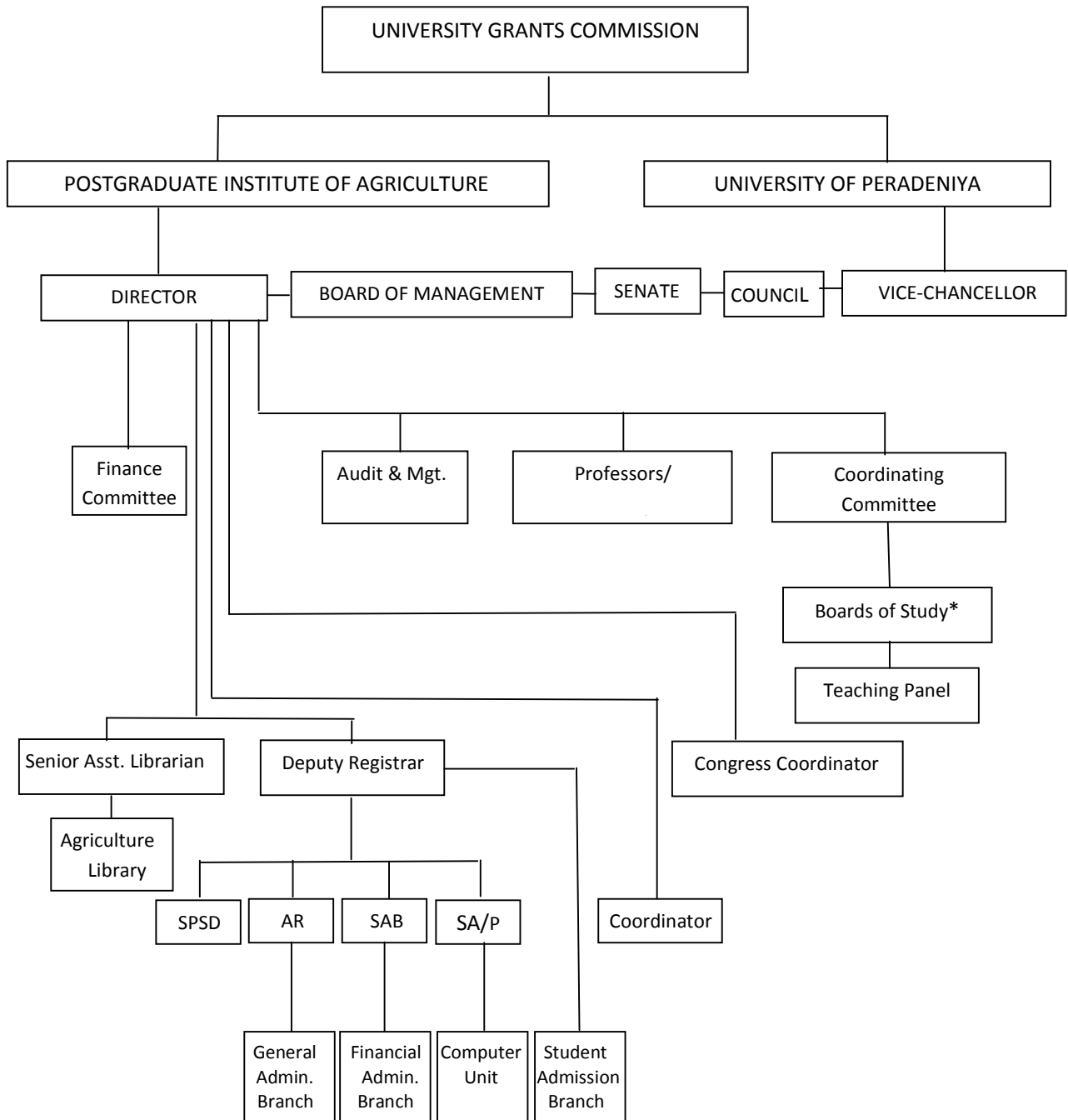
## **MISSION**

To provide high quality postgraduate education and promote pioneering high impact and innovative research to produce competent professionals in agriculture and related fields.

## **GOALS**

- Strive to attain excellent academic standards
- Be recognized at national and international level as a centre of excellence in postgraduate teaching and research
- Establish a culture of research and innovation
- Improved financial management and viability

## ORGANIZATIONAL STRUCTURE



**Abbreviations:**

- AR - Asst. Registrar
- SAB - Senior Asst. Bursar
- SA/P - Systems Analyst *cum* Programmer
- SPSD - Senior Personal Secretary to the Director

**\* Boards of Study:**

- Agricultural Biology
- Agricultural Economics
- Agricultural Engineering
- Agricultural Extension
- Animal Science
- Business Administration
- Bio-Statistics
- Crop Science
- Food Science & Technology
- Plant Protection
- Soil Science

## MEMBERS OF THE BOARD OF MANAGEMENT - 2016

### *Ex-Officio Members*

1. Prof. S. Samita, Director, PGIA
2. Mr. W.K.L.E. Walallawita, Chief Accountant representing Secretary, Ministry of Higher Education
3. Ms. W.G. Chandrika, Director, Dept. of Public Finance, Ministry of Finance
4. Mr. B. Wijayarathne, Secretary, M/Irrigation & Agriculture, Secretary representing M/Agriculture
5. Dr. R.P.M. Pathiratne, Secretary representing the M/ Livestock & Development
6. Mr. K.A.I.D. Silva, Director (Policy & Planning) representing Secretary, M/Environment
7. Mr. Anura Sathurusinghe, Conservator General of Forests representing the Dept. of Forests
8. Dr. J.D.H. Wijewardena, Director, Council for Agricultural Research Policy
9. Dr. Rohan Wijekoon, Director General of Agriculture
10. Dr. T.A.C. Tiskumara, Director General, Dept. of Animal Production & Health
11. Mr. M.A.P.K. Seneviratne, Director General, Department of Export Agriculture
12. Dr. H.A.J. Gunathilake, Director, Coconut Research Institute
13. Prof. D.K.N.G. Pushpakumara, Dean, Faculty of Agriculture, Univ. of Peradeniya
14. Prof. W.L.Wasantha Kumara, Dean, Faculty of Agriculture, Univ. of Ruhuna
15. Dr. H.S.R. Rosairo, Dean, Faculty of Agriculture, University of Sabaragamuwa
16. Prof. D.P.T.S.G. Attanayake, Dean, Faculty of Agriculture, Wayamba University
17. Dr., A.M.J.B. Adikari, Dean, Faculty of Agriculture, Rajarata University
18. Dr. P. Sivarajah, Dean, Faculty of Agriculture, Eastern University
19. Dr.(Ms.) T. Mikunthan, Dean, Faculty of Agriculture, Jaffna University
20. Prof. H.B.S. Ariyaratne, Dean, Faculty of Vet. Med. & Animal Sc., Univ. of Peradeniya

### *Elected Members of the Faculty of Agriculture*

21. Prof. I.P. Wickremasinghe, Board of Study in Agricultural Biology
22. Prof.H.L.J. Weerahewa, Board of Study in Agricultural Economics
23. Prof. E.R.N. Gunawardena, Board of Study in Agricultural Engineering
24. Dr. M.W.A.P. Jayatilaka, Board of Study in Agricultural Extension
25. Prof. G.L.L.P. Silva, Board of Study in Animal Science
26. Prof. T. Sivananthawerl, Board of Study in Bio-Statistics
27. Prof. L.H.P. Gunaratne, Board of Study in Business Administration
28. Prof. W.A.J.M. De Costa, Board of Study in Crop Science
29. Prof. D.G.N.G. Wijesinghe, Board of Study in Food Sc. & Technology
30. Dr. K.S. Hemachandra, Board of Study in Plant Protection
31. Dr. W.A.U. Vitharana, Board of Study in Soil Science

### *Members Appointed by the University Grants Commission*

32. Prof. H.P.M. Gunasena, Emeritus Professor of Crop Science, Univ. of Peradeniya
33. Prof. H.M.D. Namal Priyantha, Director, Postgraduate Institute of Science
34. Prof. HHDNP Opatha, Dept. of Human Res. & Mgt., Univ. of Sri Jayawardenapura
35. Prof. S.K. Pinnawala, Dept. of Sociology, Univ. of Peradeniya
36. Dr. I.S.B. Abeysinghe, Director, Tea Research Institute

# ANNUAL REPORT – 2016

## Postgraduate Institute of Agriculture University of Peradeniya (As at 31<sup>st</sup> of December 2016)

### DIRECTOR'S STATEMENT/REVIEW

#### A. Introduction

The Postgraduate Institute of Agriculture was established in June 1975 by Statute No. 2 of 1974 under the old University of Ceylon Act No. 1 of 1972 and was attached to the University of Sri Lanka. Under the provisions of the Universities Act No. 16 of 1978, the above Statute was deemed to be an Ordinance and accordingly, the Commission promulgated the Ordinance No. 9 of 1979 which became operative from 1<sup>st</sup> January 1980 and forms the legal basis for the functioning of the Institute. The main objective of creating this unique institution was to develop in-country capacity for postgraduate education and to provide appropriately trained scientific personnel to a rapidly expanding agricultural sector of the country. The Institute is attached to the University of Peradeniya.

#### Academic Programmes

To achieve its goals, the institute has designed a diverse of higher degree programmes which are of current importance to the economy of Sri Lanka. Curriculars were also revised to cater to the demand in the country. At present PGIA offers Ph.D., DBA, M.Phil. and 31 M.Sc. degree programmes. In its graduate programmes, the Institute places much emphasis on full-time residential training, which enable the postgraduate students to participate fully in the academic life of the university and its research programmes. An important challenge facing the PGIA is to develop disciplined, dedicated and hard working students who would devote considerable time to their studies and research and get the widest possible exposure in the relevant fields. Through such commitment, the graduates of the Institute are expected to develop a strong work ethics, which should become an integral part of their character.

The Institute revised its existing regulations equivalent to Sri Lanka Qualifications Framework (SLQF) Guidelines to be effective from 2017. The degree programmes are;

- |                  |   |
|------------------|---|
| M.Sc/MBA         | - Course work inclusive of 5 credits Directed Study       |
| M.Sc/MBA         | - Course work and research inclusive of one year research |
| M.Phil/Ph.D./DBA | - Research only   |

The M.Sc. applicants for above degrees can have an exit at PG Diploma or PG Certificate level satisfying respective credits requirements. For those who complete 25 credits can obtain PG Diploma and for those who complete 20 credits can obtain PG certificates. This is the first time the Institute introduced PG Certificate programme for the candidates who needs to obtain postgraduate qualifications within a very short period.

## **Panel of Teachers**

The Panel of Teachers consists of over 300 outstanding academic staff with wide teaching and research experience, the majority of whom are from the Faculty of Agriculture, Peradeniya and the others from other Faculties of the University System, Government Departments, Research Institutes, Corporations, Private Sector Firms, International Institutions and Non-governmental Organizations.

During 2016, 413 students were registered under 11 Boards of Study particulars, particulars of which are as follows;

M.Sc. - 341	M.Phil - 27
MBA - 32	Ph.D. - 13

During 2016, 282 students conferred degrees at the General Convocation of 2016 who have completed their degrees as follows;

Ph.D. - 09	M.Phil. - 26
M.Sc.- 206	MBA - 23

In addition to this, 18 students received Postgraduate Diplomas.

## **M.Sc. in Applied Statistics in Ghana**

Offering of M.Sc degree program in Applied statistics in Ghana was commenced in 2015 and courses were offered by the teachers of the Board of Study in Biostatistics under the MoU signed between Yeshua Institute of Technology and PGIA of the University of Peradeniya.

## **Split degree programmes**

Few students continue research components of their degrees at foreign universities as scholarship holders under the supervision of eminent academics of respective Universities. After completion of all requirements for a respective degree at the PGIA, their degrees will be awarded by the University of Peradeniya.

Two students were selected by the University of Peradeniya for overseas Training under Erasmus programme. Mr. G.D.N. Sanajaya Kumara, and Ms. H. Abeywickrema registered for MBA and M.Sc. degree programmes under the Boards of Study in Business Administration and Food Science respectively. They spent three months overseas training at Riga Technical University in Latvia and University of Turkey respectively. The courses followed and credits earned by them at these universities are counted for their respective degree programmes at the PGIA.

## **Research**

### **Research Facilitation Fund**

In the year 2016 PGIA spent Rs 13.5 m for M.Phil. and Ph.D. research of PGIA students under the Research Facilitation Fund (RFF) which established in the year 2010 aiming to conduct research on national importance areas of the country.



## **Research Publication Fund**

06 Students were selected to present articles of their research at international conferences held abroad 2016. The Institute sponsors the students travelling etc. who selected to present their papers in abroad.

## **Postgraduate Agriculture Students Association**

Postgraduate Agriculture Students' Association (PASA) organized a PGIA Day on 19<sup>th</sup> March 2016, a full day programme in which the morning session was held at the University Ground. Morning Session was inaugurated with hoisting the National Flag by the then Deputy Vice Chancellor, Prof. B.L. Wijeyeweera and the University Flag by the Director. Students, Academics and Non Academic Staff participated the PGIA day. Many entertainment events were organized by the PASA. The glamorous evening session held at the PGIA roof top.

The PASA organized a seminar on "Good Governance" on 10<sup>th</sup> September at the PGIA Auditorium. The Guest Speakers at the seminar were Her Excellency Ms. Radha Venkataraman, Assistant High Commissioner of the Indian High Commission to Sri Lanka and Dr. W. Jayatilaka, Chairperson, Board of Study in Agric. Extension of the PGIA.

The BS in Agric. Extension in collaboration with the SL Development Journalists Forum (SDJF) conducted the first national video summit for youth at Sri Lanka Foundation Institute, Colombo. A student of the PGIA won an award at this summit in the national community video competition category. In addition to the above, the Board of Study organized more interactive events for the students in the Board.

## **Annual Congress 2016**

The 28<sup>th</sup> Annual Congress of the PGIA was held from 17-18 November 2016 at the Plant Genetic Resources Centre, Gannoruwa. Dr. M. Ariyaratne served as the Coordinator of the Congress.

## **B. Achievements**

### **Students achievements**

Few students were selected / presented articles of their research at international conferences held abroad and few papers were selected to publish in the Tropical Agricultural Research Journal and iPURSE Journal of the University of Peradeniya.

### **Agreements**

An Agreement has been signed between the Postgraduate Institute of Agriculture, University of Peradeniya and the Yamaguchi University, Japan and the Department of Agriculture to develop academic and educational collaboration and to promote friendly relations among the parties.

A delegation has been visited the PGIA chaired by Prof. N. Kawate, Associate Professor of Osaka Prefecture University, Japan to develop an educational collaboration between the PGIA, University of Perdeniya and Osaka Prefecture University.

Prof. K. Watanabe, Professor of Saga University visited PGIA to further develop the collaborations between the two Universities.

### **Project on Utilization of Crop Wild relatives in Egg Plant Pre-breeding for Adaptation to Climate Change**

The final review meeting of the Eggplant pre-breeding project conducted with the participation of Spain, Ivory Coast and Sri Lanka was held during 25-27<sup>th</sup> November 2016, in Valencia, Spain with the participation of Dr. Benjamin Kilian, representative of the Donor, Global Crop Diversity Trust (GCDT) and Dr. Mohamed Rakha, Vegetable Breeder for Insect resistance of World Vegetable Center, Taiwan. The total outcome of the tri-nation project was highly appreciated by the Global Crops Diversity Trust. The PGIA was represented by Dr. (Ms.) R.M. Fonseka.

### **C. Failures**

No significant failures were confronted in the year 2016. Lack of residential facilities for foreign students discourage them applying for degree programmes offered at the Institute.

### **D. Future Plans**

#### **Foreign Students**

The Institute has planned to admit more foreign students for different programmes at the PGIA.

#### **Colombo Branch of the PGIA**

The proposal submitted by the Institute to open-up a Colombo Branch was approved by the relevant authorities. The Institute had discussions with the various educational institutes and decided to locate the Colombo Branch at the Foundation Institute, Colombo and expect to ceremonially open of the Colombo Branch in February 2017 with the new intake of students.

#### **International Staff**

It was proposed to invite academics from foreign universities in short term basis to offer PGIA courses at the PGIA through FAO Funds. The Boards of Study were agreed to find the areas of expertise of invited staff and the courses of which has to be assigned to them for this purpose.

## NEW ENTRANTS & STUDENT ENROLMENT

### B.1 DETAILS OF RESOURCES & STUDENTS (AS AT 31<sup>ST</sup> DECEMBER 2016)

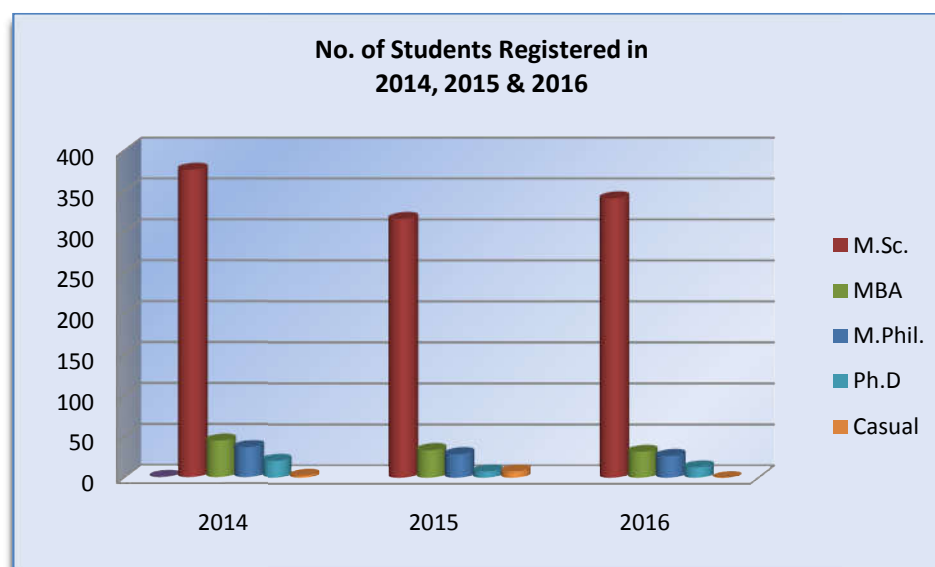
Programme of Study (Ph.D., MD, MPhil., Masters Degree, PG Diploma)	Total No. of Students	Distribution of Staff (Permanent Staff only)			
		Academic Staff	Non-Academic Staff	Academic Support Staff	Total
Casual	-				
M.Phil	27				
M.Sc	341				
MBA	32	1	38	1	40
Ph.D	13				
<b>Total</b>	<b>413</b>				

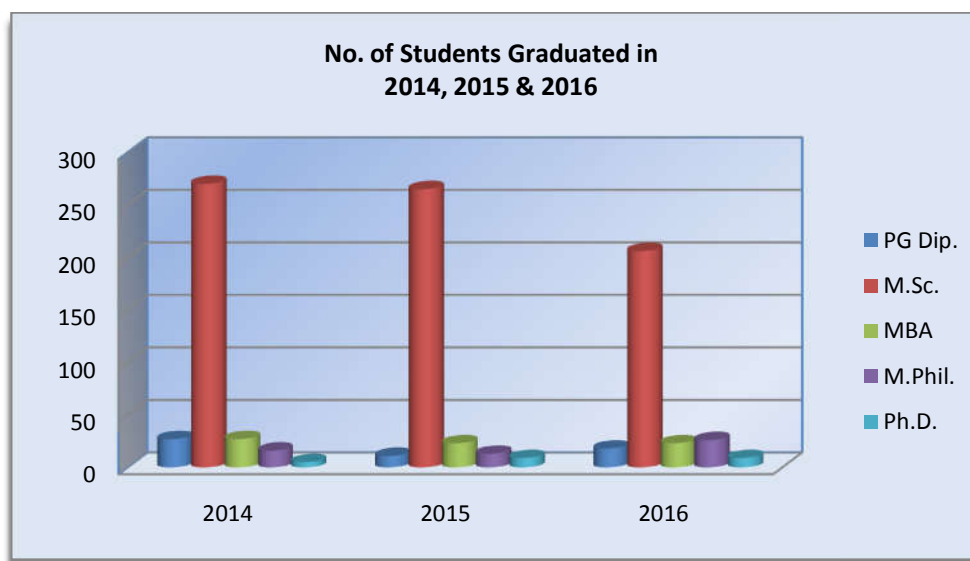
### B.2 DETAILS OF LOCAL STUDENTS IN POSTGRADUATE DEGREE PROGRAMMES - 2016

Programme of Study	Full Time/ Part Time	New Entrants (Jan-Dec-2016)			No. Graduated*
		M	F	Total	
M.Sc.	Full Time	138	203	341	206
MBA	Full Time	22	10	32	23
M.Phil.	Full Time	11	16	27	26
Ph.D.	Full Time	07	06	13	09
PG Diploma	Full Time	00	00	00	18
<b>Total</b>		<b>178</b>	<b>235</b>	<b>413</b>	<b>282</b>

M - Male                      - Female

\* No. of students who sat for the final examination during the period of 1<sup>st</sup> of January 2016 to 31<sup>st</sup> of December 2016.





### B.3 DETAILS OF FOREIGN STUDENTS IN POSTGRADUATE DEGREE PROGRAMMES - 2016

Programme of Study	Full Time / Part Time	New Entrants (Jan-Dec 2016)			Student Enrolment (Total No. of Registered Students as at 31 <sup>st</sup> December 2016)			No. Graduated*
		M	F	Total	M	F	Total	
Ph.D.(CR) in Agricultural Economics		0	0	0	0	2	2	
Ph.D.(R) in Crop Science	Full Time	0	0	0	1	0	1	0
M.Sc. in Food Science & Technology	Full Time	0	0	0	0	0	0	1
<b>Total</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>1</b>

M - Male F - Female

\* No. of students who sat for the final examination during the period of 1<sup>st</sup> of January 2016 to 31<sup>st</sup> of December 2016.

During the year under review, no foreign students were registered to follow any PG programme at the PGIA, even though fees structure applicable had been revised to encourage more applications. It should be noted that the manner in which programmes being conducted at the PGIA may have great influence on this situation as most of the time foreign students are idling during week days and like other foreign countries, they cannot afford to find job opportunities to occupy themselves during their free times. Furthermore, lack of hostel facilities also pose a great hindrance in admitting foreign students at the PGIA.

## STAFF DETAILS

### C.1 DETAILS OF ACADEMIC STAFF (AS AT 31<sup>ST</sup> DECEMBER 2016) (PERMANENT STAFF ONLY):

Institute/ Department/ Unit/Division	Senior Prof.		Prof.		Associate Prof.		Senior Lecturer Gr. I		Senior Lecturer Gr. II		Lecturer		Lecturer Probationary		Academic Support Staff		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
	PGIA			1						1*							1	2

M – Male

F – Female

\* A Tutor (temporary) has been recruited utilizing the provisions in one Senior Lecturer Post approved to the PGIA to facilitate the Board of Study/Business Administration to conduct its academic activities. Salary was paid utilizing generated funds of the Board concerned.

Apart from that Coordinator (Contract Basis) has been also serving in the PGIA in the year 2016

### C.2 DETAILS OF NON-ACADEMIC STAFF (AS AT 31<sup>ST</sup> DECEMBER 2016) (PERMANENT STAFF ONLY):

Institute/ Department / Branch	No. of Staff Members											
	Adminis- trative Staff		Other Executive		Technical Staff		Clerical and Allied Grades		Primary Staff		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
General Administration		1		1			9	3	10	2	19	07
Finance		1					4		1		05	01
Computer Unit	1						1		1		03	
Library								3	2	1	02	04
<b>Total</b>	<b>1</b>	<b>2</b>		<b>1</b>			<b>14</b>	<b>6</b>	<b>14</b>	<b>3</b>	<b>29</b>	<b>12</b>

**Recruitment:**

The one vacant post of Computer Application Assistant (CAA) was filled during the year 2016 with effect from 22.08.2016 by recruiting Mr. MWR Niththawela who has been assigned to the Computer Unit to strengthen its staff.

Mr. HMSPK Chandrathilake, who was serving as a relief Driver at the Faculty of Arts, University of Peradeniya was recruited to the PGIA as a Driver - Gr. II w.e.f. 18.01.2016

Mr. MGC Karunaratne, who was serving at the Landscape Division of the University of Peradeniya was on contract basis was recruited to the PGIA as a Labourer - Gr. III w.e.f. 08.03.2016.

However, the post of Assistant Librarian of the PGIA could not be filled even during the year under review, owing to lack of qualified candidates. The process was re-commenced by the University of Peradeniya and as of 31.12.2016, a person had been selected and approval of the Council of the UoP was awaiting for the appointment to be made.

**Promotions:**

Ms. KAIS Ranasinghe, Assistant Bursar at the Faculty of Engineering University of Peradeniya was promoted to the post of Senior Asst. Bursar and transferred to the PGIA w.e.f. 20.01.2016.

**Retirements/Resignations:**

Mr. EM Tikiri Banda who served nearly 38 years as a Machine Operator at the PGIA had retired from the service w.e.f. 18.06.2106 who was one of the few employees recruited to the PGIA when the Institute established and commenced its activities. Mr. Tikiri Banda rendered a valuable service to the PGIA, wining appreciation from all concerned at the PGIA who was felicitated by its staff at a ceremony held in month of September 2016.

**Transfer:**

Mr. RCM Keerthithilake, Labourer, Gr. III was transferred from the UGC, Colombo to the PGIA w.e.f. 01.04.2016, who was assigned to the Accounts Division.

Moreover, based on the requests, 02 staff members had been internally transferred to get them exposed to other areas of work and thereby enrich their knowledge in the year under review, particulars of which are as follows:

<b>Name of the employee</b>	<b>From</b>	<b>To</b>
Ms. Hemanthi Samarasinghe, Senior Staff Assistant	Accounts Division	General Administration
Mr. Saman Munasinghe, Computer Application Assistant	Computer Unit	Accounts Division

**Staff Development Activities:**

Even though funds have been allocated for staff development activities, no proper utilization had been possible in the year 2016 as two training programmes planned to be conducted for PGIA staff could not be held as scheduled. However, the Institute sponsored System Analyst to follow M.Sc. degree in Information Technology at the PGIS, who has been rendering a valuable services to improve the Management Information System established at the PGIA to the present level.

Following members have undergone short term training programmes conducted by outside training institutions under the sponsorships of the Institute, particulars of which are as follows;

<b>Name of the employee</b>	<b>Name of the Programme</b>	<b>Institute</b>	<b>Time Period</b>
Ms. Shanthi Hapuarachchi Senior Staff Assistant  Ms. KAP De Silva Stenographer (Gr. II)	Secretarial Practice	Skills Development Fund Ltd.	30-31.05.2016 02-03.06.2016
Ms. Shanthi Hapuarachchi Senior Staff Assistant  Ms. KAP De Silva Stenographer (Gr. II)	Minutes Keeping	Staff Development Centre, University of Peradeniya	02-03.09.2016
Ms. Samudrika Herath Deputy Registrar	Effective Internal Auditing	Skills Development Fund Ltd.	13-14.10.16

Apart from that, as has been practiced over the years, PGIA had provided training opportunities for 12 apprentices sent by National Apprentice and Industrial Training Authority and National Youth Services Board, showing its commitment to develop youth in the country. They received a comprehensive training in IT usage, general office practices, accounting matters, matters relating to student registration and admission etc. at the PGIA for a period of six months having rotated them in 04 Divisions of the PGIA.

**Recreation Activities:**

As has been done annually, the Welfare Society of the PGIA undertook their annual trip to Wasgamuwa National Sanctuary on 12.12.2016 with their own funding. No financial assistance was given by the PGIA even though funds had been identified in the budget for such an event which had been practiced until 2013 by the PGIA staff.

However, Postgraduate Association of Student Association had undertaken few social and corporate social responsibility activities during the year under review, under the sponsorship of the PGIA, particulars of which are as follows:

1. Blood donation camp in September 2016
2. CSR Activity at at Maha/ Ananda Vidyalaya at Uda-Peradeniya in November 2016

## ANNUAL CONGRESS OF THE INSTITUTE



The 28<sup>th</sup> Annual Congress, the platform to exchange, share and deliberate innovative scientific ideas and research findings of research students of the Institute was held from 17-18 November 2016 at the Plant Genetic Resource Centre (PGRC) under the patronage of H.E.Ms. Shelley Whiting, High Commissioner of Canada to Sri Lanka and Maldives. Prof. Alistair Hetherington of the Bristol University, UK graced the occasion as the Guest Speaker at this event who made insightful presentation on “Understanding How Stomata Respond to Changes in the Environment”. This year Dr. Mojith Ariyaratne, representing the Board of Study in Crop Science took the leadership in handling the event to a successful completion.

The findings of all research students were presented under 08 thematic areas. 38 oral and 10 poster presentations were made by students under the guidance of their academic supervisors. Of the 38 oral presentations made, following students have been selected as best presenters under each thematic area.

Of the 38 presentations, Mr. D T Jeyakumar, Board of Study in Agri. Biology had been adjudged as the best presenter and Mr. A D Nagalle was adjudged as the best poster presenter at this event.

<b>Thematic Area</b>	<b>Title of the Paper</b>	<b>Name of the Recipient</b>
Genetics and Plant Breeding	Morpho-genetic Diversity and Anti-bacterial Activity in Root Extracts of Nine Solanaceous Species	DT Jeyakumar
Food Science & Technology	Impact of Moderate Intensity Pulsed Electric Field Treatment on Lycopene Content and Its <i>In vitro</i> Bioaccessibility of Whole Tomato ( <i>Solanumlycopersicum</i> )	KGLR Jayatunga
Water Treatments and Dynamics	Situation Analysis of Socio Environmental Aspects of Non point Source Water Pollution in Intensively Cultivated Areas of Nuwara-Eliya	KDMSS Sarathchandra



Molecular Genetics	Evaluation of Genetic Diversity of <i>Cis</i> -acting Elements of Abscisic Acid Responsive Element Binding Protein ( <i>ABRE-BP</i> ) in Selected Sri Lankan Rice ( <i>Oryza sativa</i> L.)	W M A Seneviratne
Agrostology and Aquaculture	Yield and Nutritional Quality Potential of Three Fodder Grasses in the Northern Region of Sri Lanka	M Sarmini
Agronomy	Impact of Variety and Seed Priming on Anaerobic Germination-Tolerance of Rice ( <i>Oryza sativa</i> L.)	T K Illangakoon
Entrepreneurship and Extension	Fostering Technology Stewardship Approach to Promote Knowledge Sharing among Farming	H A C K Jayathilaka
Climate change & Water Management	Impact of Climate Change on Irrigation Water Demand of Paddy: A Case Study from <i>Hakwatuna Oya</i> Irrigation Scheme in Sri Lanka	M Rajendran
Poster Presentation	Evaluating the Growth Performance of Two <i>Azotobacter</i> species as an Inoculum for the Production of Bio-Fertilizers in Liquid Glucose Broth	A D Nagalle

**Dr. AWR Joachim Memorial Award :** As has been done before, the following students have been awarded the Joachim Memorial Award for achieving the highest GPA in the year 2015, out of 273 students passed out in the year under review.

Name	Board of Study	Degree Programme
1. Mr. PMPC Gunathilake	Agric. Engineering	Ph.D. by Course Work & Research
2. Ms. AB Sartaj	Agric. Biology	M.Sc. in Biotechnology

They have been awarded a certificate and a cash price of Rs. 9000/- each in appreciation of their achievement.

It was noted that the student participation for the Annual Congress has been getting decreased annually which was the focus at the winding up session of the Annual Congress which lead to change the format of the Congress enticing student's participation in future. The deliberations were also directed towards popularizing the event among industries with their participation throughout the session and post evaluation of sessions with Industries was also discussed to ascertain the value of research findings being adopted for usage by Industries. Furthermore, an initiative had also been taken to bring the status of the Tropical Agriculture Research Journal to that of a Science Indexed Journal by strengthening the editorial board with national and international reputed editors for to represent the each Board of Study. All these developments were positive suggestions and endeavours arising out of the post evaluation sessions on Annual Congress in the year under review.

**C.3 INFORMATION OF INTERNATIONAL STAFF VISITED FOR POSTGRADUATE / POSTGRADUATE TEACHING/RESEARCH/ SYMPOSIUM/ WORKSHOP IN THE YEAR 2016**

The following table showed the international staff visited to the Institute during the year 2016.

<b>Institute</b>	<b>Name of the Programme</b>	<b>Country</b>	<b>No. of Staff</b>
University of Bristol, United Kingdom	Annual Congress 2016	United Kingdom	01
High Commissioner of Canada to Sri Lanka and Maldives	-do-	Canada	01
Fujian Agriculture and Forestry University	Academic Corporation	China	01
Yamaguchi University	Academic and Education Collaboration	Japan	05

**Research Output Data**

The PGIA does not receive funds for research activities. In order to remedy this situation, the Institute itself established a Research Facilitation Fund from the generated funds of the Institute in the year 2009. Annually the funds allocated for this Fund is increased and in the year under review Rs. 6.0 million has been allocated by the Institute to be distributed among needy and students who undertake research degrees which could address the important and development issues of the country.

The year under review, 07 research grants had been awarded under this fund to undertake Ph.D and M.Phil research degrees out of the applications received. Students who apply for PG degrees at the Institute have been informed when applications are called for various degrees through public notices and website of the Institute.

## PUBLICATION OUTPUT IN 2016

### D.1 (a) Details of Publications done by the Academic Staff in 2016

– None

(Since the Institute does not have permanent academic cadre and the fact that all academic and research activities of the Institute is carried out by permanent academic staff members of the Faculty of agriculture, University of Peradeniya, publications done by them have usually been listed under the University of Peradeniya.

### D.1 (b) Details of Full Papers Published in Indexed Journals in 2016

The following publications have been done by the PGIA students during the year under review which have been published in the Tropical Agricultural Research Journal, which is the Journal published by the Institute itself since 1987.

Title of the paper	Name of the Main Author *	Name of the Co-Authors
Quantitative Genetic Assessment of the Phosphorus Deficiency Tolerance in Selected F <sub>2</sub> Progenies of Rice ( <i>Oryza sativa</i> L.) Genotypes in Sri Lanka	Ms. Y.C. Aluwihare	R. Lelwala, D.R.R.P. Dissanayake, M.D.M. Chamikara, D.N. Sirisena, W.L.G. Samarasinghe and S.D.S.S. Sooriyapathirana
Impact of Variety and Seed Priming on Anaerobic Germination-Tolerance of Rice Varieties in Sri Lanka	Ms. T.K. Illangakoon	E.S.Ella, A.M.Ismail, B.Marambe, R.S.K.Keerthisena, A.P. Bentota, and S. Kulatunge
Water conflicts among different water users and uses in the <i>Hakwatuna Oya</i> watershed in the <i>Deduru Oya</i> basin, Sri Lanka	Ms. NGR Saumyaratne	E.R.N. Gunawardena and N.D.K. Dayawansa
Recent changes of rainfall regime of <i>Hakwatuna Oya</i> watershed of Sri Lanka	Ms. ACS Perera	A.C.S. Perera, B.V.R. Punyawardena and E.R.N.Gunawardena
Morpho-genetic diversity and anti bacterial activity in the root extracts of nine Solanaceous Species.	Mr. DT Jeyakumar	U.H.A.J. De Silva, D.R.R.P. Dissanayake, M.D.M. Chamikara and S.D.S.S. Sooriyapathirana
Captive Breeding of Fire Shrimp, <i>Lysmata Debelius</i> , Under Sri Lankan Conditions	Ms. HASU Hettiarachchi	U.Edirisinghe

Developmental Biology and Feeding Efficiency of <i>Menochilussexmaculatus</i> (Coleoptera: Coccinellidae) (Fabricius) reared on <i>Aphis craccivora</i> (Hemiptera: Aphididae) (Koch)	Ms. TDC Priyadarshani	K.S. Hemachandra, U.G.A.I. Sirisena and H.N.P. Wijayaguasekara
Differential Expression of Defense-Related Genes in <i>Sinapis alba</i> and <i>Brassica juncea</i> upon the infection of <i>Alternariabrassiccae</i>	Mr. NMC Nayanakantha	S. Rawat, S. Aliand A. Grover
Above Ground Biomass Estimation of Mangroves Located in Negombo - Muthurajawela Wetland in Sri Lanka using ALOS PALSAR Images	Mr. AR Gunawardane	S.P. Nissanka, N.D.K. Dayawansa and T.T. Fernando
Beneficial Nutrient Management Practice for Improving Maize ( <i>Zea mays</i> ) Yield in a Tropical Entisol	Mr. AA Mariaselvam	W.S. Dandeniya, S.P. Indraratne, and R.S. Dharmakeerthi
Physiological, Biochemical and Proteomic Responses of Rice ( <i>Oryza sativa</i> L.) Varieties <i>Godaheenati</i> and <i>Pokkali</i> for Drought Stress at the Seedling Stage	Ms. JKTP Jayaweera,	H.M.V.G. Herath, D.V. Jayatilake, G.S. Udumulla and H.A.M. Wickramasinghe
Effect of <i>Asparagus falcatus</i> and <i>Taraxacum javanicum</i> Inulins on Growth of <i>L. acidophilus</i> La-5 and <i>B. animalis</i> subsplactis Bb-12, Co-cultured in Skim Milk	Ms. DC Mudannayake,	K.M.S. Wimalasiri, K.F.S.T. Silva, <i>S. Ajlouni</i>
Is Plantain ( <i>Plantagolanceolata</i> L.), Chicory ( <i>Cichoriumintybus</i> L.) and Clover Mixtures Effective on Weaned Lamb Growth?	Ms. SC Somasiri	P.R. Kenyon, P.D. Kemp, P.C.H. Morel and S.T. Morris
A Comparison Between Farmers' and breeders' Participation of Varietal Selection in Cowpea ( <i>Vigna unguiculata</i> (L). Walp) Improvement	Ms. MC Millawithanachchi	V.A. Sumanasinghe, A.P. Bentota, B.N. Samaranyake and N.T. Prathapasinghe
Exploring the Short-scale Spatial Variability of Calcic Red Latosol Soil Using DUALEM-1S Proximal Soil Sensor	Mr. RAAS Rathnayaka	W.A.U. Vitharana
Growth Performance and Carbon Accumulation of Khaya ( <i>Khayasenegalensis</i> ) in Sri Lanka	Ms. WMRSK Arnasooriya	T. Sivananthawerl

Effects of Changing Rainfall and Soil Temperature on Population Density of <i>Pratylenchus</i> in Tea Lands at Different Elevations	Ms. PGDS Amarasena	K.M. Mohotti and D.M. De Costa
Phenolic Content and Antioxidant Capacity of Selected Underutilized Fruits Grown In Sri Lanka	Mr. ALI Piyathunga	M.A.L.N. Mallawaarachchi and W.M.T. Madhujith
Evaluation of Groundwater Quality for Irrigation in <i>Malwathu Oya</i> Cascade-I in Anuradhapura District of Sri Lanka	Ms. MKN Kumari	S. Pathmarajah, N.D.K. Dayawansa and K.G.S. Nirmanee
Bulk Soil Properties as the Determinants of Soil Surface Shear Strength of Puddled Lowland Rice Soils of Sri Lanka affected by Weed Controlling methods	Mr. GVTV Weerasooriya	D.N. Jayatissa and M. Rambanda
Perception-driven Coping Strategies for Climate Change by Smallholder Farmers in Sri Lanka: A Case Study in Hakwatuna-oya Major Irrigation Scheme	Mr. DMN Diyawadana	S. Pathmarajah and E.R.N. Gunawardena
Evaluation of Morphological Diversity of Conserved Tall Coconut ( <i>Cocos nucifera</i> L.) Germplasm in Sri Lanka	Ms. KNS Perera	H.M.N.B. Herath, D.P.S.T.G. Attanayaka and S.A.C.N. Perera
Characterization and Detection of Yellow Vein Disease of Okra ( <i>Abelmoschus esculentus</i> (L.) Moench) in Sri Lanka	Ms. HMSI Senevirathna	S.K. Wasala, D.M.J.B. Senanayake, D. Weerasekara, H.A.M. Wickamasinghe and P.K.G.A. Deepal
Assessment of the Suitability of Temperature and Relative Humidity for Rice Cultivation in Rainfed Lowland Paddy Fields in Kurunegala District	Ms. WMUK Rathnayake	R.P. De Silva and N.D.K. Dayawansa
An Assessment of Antibiotic Resistant Bacteria in Poultry Litter and Agricultural Soils in Kandy District, Sri Lanka	Ms. EM Herath	A.G.K.N. Palansooriya, W.S. Dandeniya, R.N. Jinadasa
Determination of Desirable Properties of Bacteria, Fungi and Their Biofilm Associated with Rubber Rhizosphere	Ms. RP Hettiarachchi	R.S. Dharmakeerthi, G. Seneviratne, A.N. Jayakody, K.E. De Silva, T. Gunathilake and A. Thewarapperuma

In addition to the above local publications made by PGIA students, the following students have been granted financial assistance to present their research finding at international conference in the year 2016 from the Publication Fund established in the PGIA.

<b>Name of student and Board of Study</b>	<b>Title of the paper</b>	<b>Name of Conference</b>	<b>Duration</b>
Mr. GMP Kumara (BS in Agricultural Engineering)	Factors affecting to participation and cultivation extend of other field crops: Heckman Two Stage Model Approach in Awlegama, Wariyapola, Sri Lanka	30 <sup>th</sup> International Conference on Science, Social Science and Economics in Singapore	20 March 2016
Ms. WMRSK Warnasooriya (BS in Crop Science)	Site Quality of Khaya ( <i>Khaya senegalensis</i> ) Plantations in Sri Lanka as Indicated by Height-diameter Relation and Top Height	2 <sup>nd</sup> Kuala Lumpur International Agriculture, Forestry and Plantation Conference in Kuala Lumpur Malaysia	20-21 Feb. 2016
Ms. HCD Jayawardena (BS in Agricultural Biology)	Effect of organic matter application on growth of rice ( <i>Oryza sativa</i> L.) in Cadmium Contaminated Sand	5 <sup>th</sup> International Conference on Agriculture and Environmental Sciences Conference in Dubai	3-4 May 2016
Mr. HMDAK Herath (BS in Agricultural Biology)	Synergistic effect of Zinc and cadmium for uptake, accumulation and growth responses in rice ( <i>Oryza sativa</i> ) varieties	5 <sup>th</sup> International Conference on Agriculture and Environmental Sciences Conference in Dubai	5-6 May 2016
Ms. RACH Senaviratne (BS in Food Science and Technology)	Development of a Rice Fortification Technique Using Vacuum Assisted Rapid Diffusion for Low Cost Encapsulation of Fe and Zn	18 <sup>th</sup> International Conference on Nutrition and Food Sciences in Singapore	8-9 Sept. 2016
Ms. IHR Uthpala (BS in Food Science and Technology)	Effect of postharvest handling operations of oil palm fruits ( <i>Elaeis guineensis</i> ) on quality of crude palm oil	15 <sup>th</sup> International Conference in food processing and Technology in Italy	27-29 Oct. 2016

**D.2 DETAILS OF THE SCIENCE AND TECHNOLOGY DEVELOPMENT  
OUTPUT IN 2016 - None**

Category	Number Developed	Number transferred/ commercialized /publicized
Development of new product/processes		
improvement of the quality of existing product /processes		
Development of new plant varieties/hybrids /Micro organism based products		
Development of ‘ Import ‘ substitutes		
Design Prototypes developed		
Other (Please specify.)		

**D.3 DETAILS OF PATENTS IN 2016 - None**

Institute	Category	Number		Remarks
		National	International	
	No. of Patents filed			
	No. of Patents received			
	No. of Patents licensed, sold/transferred			

#### D.4 DETAILS OF KNOWLEDGE DISSEMINATION TO THE GENERAL PUBLIC DURING THE YEAR 2016

Organized by	Category	Title of the Programme	Date/s held	Duration	No. Participated	Target group
Agric. Biology, PGIA	Workshops	Certificate course on plant breeding techniques for the improvement of annual food & floricultural crops	2-5 August	04 Days	13	Researches, lectures, plant breeders, Graduate students
B/S in Agric. Economics		Economics of Ecosystem Services and Biodiversity - I	21-22 January	02 Days	17	Researches, lecturers, Graduate students
B/S in Agric. Economics		Economics of Ecosystem Services and Biodiversity - II	26-27 January	02 Days	25	People from Mahaweli Authority, Ministry of Environment and Forest Department.
B/S Soil Science/ PGIA		Soil and Water Analysis	31 August	06 Days	04	Researchers, lectures, Graduate students
B/S Soil Science/ PGIA		Use of GPS and Google Earth tools in research	29 May	01 Day	13	Researches, lecturers, Graduate students
B/S Bio-Statistics		Multivariate Data Analysis	28-30 March	03 Days	33	Statistician, Doctors lecturers, researches, students professionals
B/S Agric. Engineering	Training/ Workshop	Rainwater Harvesting to Cope with the Impact of Climate Change on Water Resources	16-17 June	02 Days	35	National Water Supply and Drainage Board, Central Environmental Authority, Dept. of Disaster Management Centre, Department of Irrigation, Agrarian Services and NGOs
Postgraduate Agriculture Students Association	Seminar	Good Governance	10 Sept.	01 Day	50	PGIA Students
B/S Agric. Extension	Summit	National Youth Video Summit				
B/S Agric. Engineering	Symposium	Groundwater Availability and Use in the dry Zone of Sri Lanka	22 July	01 Day	30	Water Professionals and Researches
B/S Agric. Engineering	Workshop	Water Professional Day	10 Oct.	01 day	50	Water Professionals, Farmer leaders, students
B/S Agric. Extension	Workshop	Dining Etiquette	22 Oct.	01 Day	50	PGIA Students
B/S Agric. Extension	Training Programme	Outbound	22-24 July	03 Days	50	PGIA Students
B/S Agric. Extension	Guest Lecture	Community Development	04 June	01 Day	50	PGIA Students
B/S Agric. Extension	Guest Lecture	Media and Marketing Communication	29 Oct.	01 Day	50	PGIA Students

The year under review, Board of Study in Agricultural Extension conducted 07 workshops out of 15 conducted by other Boards of Study.



## D.5 NATIONAL & INTERNATIONAL AWARDS RECEIVED IN 2016

Thematic Area	National/ International	Title	Name of student
Genetics & Plant Breeding	National	Morpho-genetic Diversity and Anti-bacterial Activity in Root Extracts of Nine Solanaceous Species	D.T. Jeyakumar
Food Technology	National	Impact of Moderate Intensity Pulsed Electric Field Treatment on Lycopene Content and Its <i>In vitro</i> Bioaccessibility of Whole Tomato ( <i>Solanum lycopersicum</i> )	K.G.L.R. Jayathunge
Water: Treatments & Dynamics	National	Situation Analysis of Socio Environmental Aspects of Non point Source Water Pollution in Intensively Cultivated Areas of Nuwara Eliya	K.D.M.S.S. Sarathchandra
Molecular Genetics	National	Evaluation of Genetic Diversity of <i>Cis</i> -acting Elements of Abscisic Acid Responsive Element Binding Protein ( <i>ABRE-BP</i> ) in Selected Sri Lankan Rice ( <i>Oryza sativa</i> L.) Varieties	W.M.A. Senavirathne
Agrostology & Aquaculture	National	Yield and Nutritional Quality Potential of Three Fodder Grasses in the Northern Region of Sri Lanka	M. Sarmini
Agronomy	National	Impact of Variety and Seed Priming on Anaerobic Germination-Tolerance of Rice ( <i>Oryza sativa</i> L.) Varieties of Sri Lanka	T.K. Illangakoon
Entrepreneurship & Extension	National	Fostering Technology Stewardship Approach to Promote Knowledge Sharing among Farming Communities in Sri Lanka	H.A.C.K. Jayathilake
Climate Change & Water Management	National	Impact of Climate Change on Irrigation Water Demand of Paddy: A Case Study from <i>Hakwatuna Oya</i> Irrigation Scheme in Sri Lanka	M. Rajendran
Poster Presentation	National	Evaluating the Growth Performance of Two <i>Azotobacter</i> species as an Inoculum for the Production of Bio-Fertilizers in Liquid Glucose Broth and Tryptic Peptone Broth	A.D. Nagalla
Best Paper	National	Morpho-genetic Diversity and Anti-bacterial Activity in Root Extracts of Nine Solanaceous Species	D.T. Jeyakumar

## **E. INTERNATIONALISM**

### **E.1 DETAILS OF INTERNATIONAL CONFERENCES AND WORKSHOPS CONDUCTED BY THE INSTITUTE IN 2016**

<b>No.</b>	<b>Theme</b>	<b>Organized by</b>	<b>Date/s held</b>	<b>Duration</b>	<b>Target Group</b>	<b>No. of Participants</b>
1	28 <sup>th</sup> Annual Congress	Congress Unit, PGIA	19-20 Nov.	2 Days	Researchers and Graduates	500
2	Water Resources Management	Board of Study Agricultural Engineering			Officials from Nepalese Ministry of Agricultural Development	15

### **E.2 DETAILS OF MOUs SIGNED WITH FOREIGN HEIs/RESEARCH INSTITUTIONS/DONAR AGENCIES IN 2016**

<b>Role of the Activity</b>	<b>Name of the Activity</b>	<b>Partner Institutes/ Collaborative Agency</b>	<b>Country</b>
Promote staff exchange	Staff Exchange and Strengthen Teaching and Research Programme	Universitat Politecnica De Valencia	Spain
Promote friendly relations between the two countries	Developing academic and education collaboration	Yamaguchi University	Japan

### **E.3 DETAILS OF NEW COURSES COMMENCED (AS AT 31ST DECEMBER 2016)** **None**

## AGRICULTURE LIBRARY REPORT - 2016

Library Allocations received in 2016

PGIA Allocation	-	Rs. 1100,000.00
Faculty Allocation	-	Rs. 545183.73
Total	-	Rs. 1645183.73

### Acquisitions - Books

During the Year 2016, 309 books were added to the Library Collection, which comprised textbooks recommended by teaching staff of both the Faculty of Agriculture and the PGIA to suit the teaching programmes of the two institutions .

### Details of the books added to the collection

Number of books purchased by PGIA finances	61
Value	Rs.838688.90
Number of books purchased by Faculty allocation	52
Value	Rs.465985.63
Total number of books purchased (PGIA & Faculty)	113
Number of PGIA theses added to the collection	32
<b>Donations</b>	
Number of books received from other donors	164
Value	Rs.130636.45
Total number of books added (Purchases and Donations)	309

### Periodicals

Two periodicals titles were subscribed in 2016 including 01 foreign periodicals by the PGIA funds.

Number of periodicals ordered by PGIA finances	02
Value	Rs. 4400.00
Number of periodicals ordered by Faculty allocation	--
Total number of periodicals ordered (PGIA)	02
Total Value	Rs. 4400.00

### **Library User Categories**

The registered Library users in 2016 were 2365. Details are shown below.

Postgraduate Students	1428
Undergraduate Students	773
Academic Staff (Permanent)	161
Academic Staff (Temporary)	02
Permanent Academic support Staff	01
Total	2365

In addition 13 users registered as short term users of the Library.

### **Usage of Library Books**

A total of 1665 books have been circulated among the students/teachers in 2016.

### **Inter- Library Loans**

We received 02 articles requested from other libraries.

### **Literature Searching**

CAB CD- ROM database was used for literature searching by research students both in the Faculty and PGIA. Six (06) CAB searches were carried out during the Year 2016.

### **Sales /Exchanges of Tropical Agricultural Research.**

Sales work of the PGIA journal 'Tropical Agriculture Research' is handled by the Library.

The number of copies sold in 2015 (full volume )	-	--
The number of copies sold in 2015 (single issues)	-	25
Number of copies exchanged with other institutions for their publications ( Single Issues)	-	10

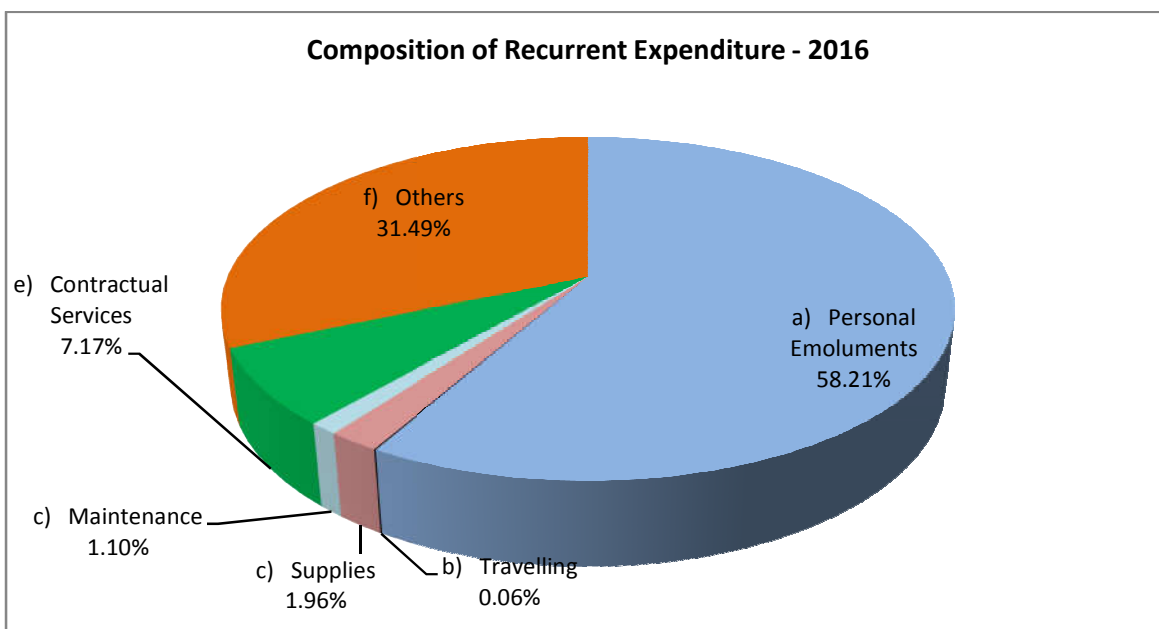
### **Other library cooperation activities:**

1. Mrs. K.P.K. Dambawinna SAL /Agriculture has reported to duty on 04.11.2016.
2. Mrs. D.K. Abeyrathne /AL was transferred to the Medical Library w.e.f. 5<sup>th</sup> Nov. 2016.
3. Mrs. HMPDK Abayasuriya/Library Information Assistant was transferred to Agriculture Library from 07.07.2016 and Mr. K.S. Watareka/Library Information Assistant was transferred to Science Faculty Library with effect from 07.07. 2016.

## FINANCIAL PERFORMANCE

### Details of Recurrent Expenditure

Subject	2014 (Rs.)		2015 (Rs.)		2016 (Rs.)	
	Allocation	Actual	Allocation	Actual	Allocation	Actual
a) Personal Emoluments	50,445,000	42,291,801	58,924,000	57,714,664	70,580,000	65,666,955
b) Travelling	900,000	92,045	100,000	75,692	100,000	71,280
c) Supplies	3,990,000	3,691,345	4,560,000	2,519,653	2,307,000	2,207,963
d) Maintenance	1,400,000	1,019,196	1,010,000	1,083,394	1,300,000	1,240,715
e) Contractual Services	8,840,000	6,756,642	9,260,000	8,322,628	8,425,000	8,091,206
f) Others	22,480,000	36,257,738	16,610,000	28,170,302	21,075,000	35,525,084
<b>Total</b>	<b>88,055,000</b>	<b>90,108,767</b>	<b>90,464,000</b>	<b>97,886,332</b>	<b>103,787,000</b>	<b>112,803,202</b>
<b>Financed By:</b>						
Government Grant	16,080,000		19,000,000		20,000,000	
As a %	18%		21%		19%	
Generated Funds	71,975,000		71,464,000		83,787,000	
As a %	82%		79%		81%	

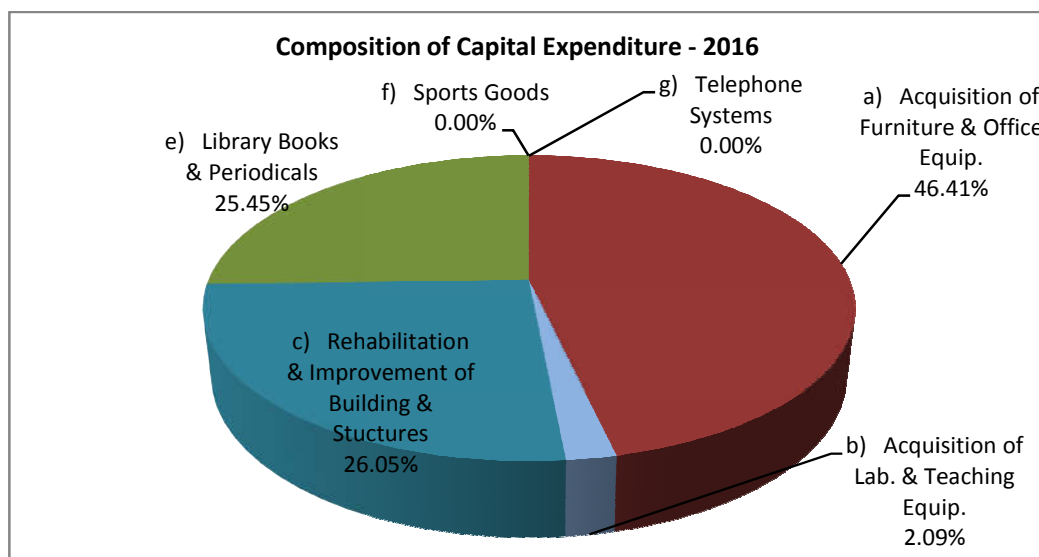


The treasury allocation for the recurrent expenditure of the Institute in the year 2015 is Rs. 20.0 million and allocation for capital expenditure was 10.0 million. It was about 0.1 million increase respectively compared to the last year recurrent allocation. Total actual recurrent and the capital expenditure for this year is Rs.112.80 million and Rs.3.47 million respectively. The total recurrent expenditure was financed primarily by the generated funds (81%) and the remainder by consolidated fund (19%). About 58.21% of recurrent expenditure is for the personal emoluments including salaries & wages of the permanent staff and the visiting lecture fees. Other recurrent

expenditure including course materials, special services, travel grants to university teachers, annual congress...etc is about 31.49 % of total recurrent expenditure of the year under review. The composition of the recurrent expenditure is given in the above figure.

### Details of Capital Expenditure

Subject	2014 (Rs.)		2015 (Rs.)		2016 (Rs.)	
	Allocation	Actual	Allocation	Actual	Allocation	Actual
a) Acquisition of Furniture & Office Equipments	6,050,000	7,623,417	6,732,000	4,587,026	2,603,000	1,609,344
b) Acquisition of Lab. & Teaching Equipments	1,600,000	1,340,392	-	-	-	72,325
c) Rehabilitation and improvement of Building & Structures	-	4,929,799	7,060,000	2,516,299	11,000,000	903,422
d) Motor Vehicle	350,000	389,831	-	89,664	275,000	-
e) Others- Library Books & Periodicals	500,000	1,058,161	750,000	1,031,458	1,100,000	882,633
f) Sports Goods	500,000	-	-	-	-	-
g) Telephone Systems	-	426,328	-	-	-	-
<b>Total</b>	<b>9,000,000</b>	<b>15,767,929</b>	<b>14,542,000</b>	<b>8,224,447</b>	<b>14,978,000</b>	<b>3,467,724</b>



**Source: Final Account Report**

About 26.05% of the capital investment budget of nearly Rs. .90 million was for the Rehabilitation of Building of the institute and 46.41% of the capital budget of nearly 1.68 million was set aside for acquisition of furniture and office equipments upgrading the facilities in the class rooms and computer laboratories. Further an amount of nearly .88 million was spent for acquisition of books and periodicals for the Agriculture library of the Institute. The composition of capital expenditure are given in the above figure.

STATUTORY REPORT AND DISCLOSURE OF SIGNIFICANT ACCOUNTING POLICIES FOLLOWED IN PREPARING THE FINANCIAL STATEMENTS OF THE POSTGRADUATE INSTITUTE OF AGRICULTURE (PGIA), UNIVERSITY OF PERADENIYA FOR THE YEAR ENDED 31<sup>ST</sup> DECEMBER 2016

1. General

The Financial Statements of the Postgraduate Institute of Agriculture for the year ended 31<sup>st</sup> December 2016 have been prepared in terms of section 12 (3) (e) and 19 (1) of the Postgraduate Institute of Agriculture Ordinance No. 9 of 1979, 106 (1) and 107 (b) of the Universities Act No.16 of 1978 and as amended by the subsequent legislation and in pursuance of the Finance Act. No 38 of 1971.

2. Significant Accounting Policies

2.1 Basis of Accounting

Statement of Financial Position, Statements of financial Performance, Statement of Changes in Equity and Cash Flow Statement together with the Accounting Policies and Notes (“Financial Statements”) are a general-purpose financial report which have been prepared on an accrual basis and in accordance with generally accepted accounting principles, applicable Sri Lanka Public Sector Accounting Standards (SLPSAS) – Volume I published in 2009 & Volume –II published in 2012, in terms of the Universities Act No. 16 of 1978 and Finance Act No. 38 of 1971 and Department of Public Enterprises guidelines for the preparation and presentation of financial statements.

All accounting policies adopted by the Institute are applied consistently with those of the previous year. Where necessary, comparative figures have been adjusted to conform to the changes in presentation of the current year. No adjustment has been made for inflationary factors affecting the Accounts.

3. Property, Plant & Equipment (PPE)

3.1. Property, Plant and Equipment are stated at Revaluation and the depreciation is provided in terms of the UGC Circulars No. 649 of 5<sup>th</sup> October 1995. Depreciation is charged to the statements of financial performance, on a straight line basis.

The rates of depreciation for PPE are decided in accordance with the instructions of UGC circular.

<u>Property, Land and Equipment</u>	<u>Rate of Depreciation</u> <u>per annum (%)</u>
Building & Structure	- 05
Office Equipment	- 20
Housing Projects Equipment	- 20
Furniture and Fittings	- 10
Laboratory, Teaching & Office Equipment	- 20
Motor Vehicles	- 20
Library Books and Periodicals	- 20

Depreciation of an asset begins when it is available for use and ceases at the earlier of the dates on which the asset is classified as held for sale or is derecognised.

The Process of revaluation of Motor Vehicles amounting to Rs. 13,609,274.00 have been conducted by the Department of Motor Traffic and the re-valued amounts have been adjusted to the respective ledger balances. Depreciation has been provided for full year based on the revalued amounts.

The physical verification of Library materials declared lost/ misplaced had been conducted by a sub committee appointed by the Board of Management to recommend the actions to be taken with respect of them, and it has been recommended to write off the value of Rs. 464,144.86 from the books of Accounts. With the recommendation of the Board of Management at its 226<sup>th</sup> meeting held on 25<sup>th</sup> November 2016, that decision was approved at its 459<sup>th</sup> Council held on 08<sup>th</sup> February 2017 and loss has been written off accordingly complying with the financial regulations.

- 3.2 The ownership of the land in which the buildings of the Institute are constructed is not legally vested to the PGIA as the Institute operates as an affiliated Institute to the University of Peradeniya. Hence, the value of the land is not considered in preparation of financial statements of the Institute. Buildings value of Rs. 103,656,058.37 shown only in the financial statements.

#### 4. Current Assets

Assets classified as current assets on the Balance Sheet are cash and bank balances and those which are expected to be realised in cash during the normal operating cycle or within one year from the reporting date, whichever is shorter.

##### 4.1 Inventories/ Stocks

Inventories/ Stocks are valued at actual cost. The cost of the inventories are arrived at by using the First-In, First -Out basis. The stock balance appearing in Accounts has been physically verified.

##### 4.2 Trade & Other Receivables

Trade and other receivables are stated at the amounts estimated to be realised, and where necessary, provision is made in the financial statements, for bad & doubtful debts.

Revenue from tuition fees is recognized over the period of instruction. Accordingly, income from PG Diploma, M.Sc, M.Phil, MBA and Ph.D. programmes are recognized over a period of 01 Year, 1 ½ Years, 2 Years, 2 ½ Years and 03 Years respectively.

Actual Loan Balances to be recovered from the staff as at 31<sup>st</sup> December 2016 are considered as loans receivable.



### **4.3 Cash and Cash Equivalents**

Cash in hand, in banks and short-term deposits which are held to maturity are carried at cost. For the purpose of the Cash Flow Statement, cash & cash equivalents consist of cash in hand and deposits in banks, net of outstanding bank overdrafts.

## **5. Liabilities & Provisions**

Liabilities classified as current liabilities on the Financial Position are those which fall due for payment on demand or within one year from the reporting sheet date. Non-current liabilities are those balances that fall due for payment later than one year from the reporting sheet date.

All known liabilities have been accounted for in preparing the Financial Statements.

### **5.1 Employee Benefits**

#### **5.1.1 Defined Contribution Plans**

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions into a separate entity and will have no legal or constructive obligation to pay further amounts. Obligations for contributions to Employees Provident and Employees Trust Fund covering all employees are recognised as an expense in profit and loss as incurred.

The PGIA contributes 15% and 3% of gross emoluments to employees as Provident Fund and Trust Fund contributions respectively.

#### **5.1.2 Defined Benefit Plans**

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. Provision has been made for retirement gratuities from the first year of service for all employees. However, under the Payment of Gratuity Act No. 12 of 1983, the liability to an employee arises only on completion of 5 years of continued service.

### **5.2 Provisions**

A provision is recognised if, as a result of a past event, the PGIA has present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation.

#### **Provision for Bad & Doubtful Debts**

The statistics shows that approximately 10% of the total tuition fees and registration fees in each year were not collected due to various reasons beyond the control of the Institution. However, 10% of total tuition fees and registration fees income had been made for dropouts in the budgets prepared for each degree programme.

Therefore an equivalent percentage of 10% on tuition fees and registration fees receivable as at 31/12/2016 has been made in the financial statements as provision for bad & doubtful debts starting from this year which will be adjusted based on the actual dropouts in each year.

### **5.3 Trade and Other Payables**

Liabilities for Accounts Payable are carried at the amount of cash & cash equivalents expected to be paid.

## **6. Capital Expenditure on other Capital Activities**

The expenditure for other capital activities introduced by the University Grants Commission has been accounted as recurrent expenditure.

## **7. Contingent Liabilities and Assets**

### **7.1 Contingent Liabilities**

No contingent liabilities have been recognised by the Postgraduate Institute of Agriculture as at 31.12.2016.

### **7.2 Contingent Assets**

No contingent assets have been recognised by the Postgraduate Institute of Agriculture as at 31.12.2016.

## **8. Statements of financial Performance**

8.1 All the Expenditure incurred in the running of the business and maintaining the Capital Asset in state of efficiency has been charged to revenue in arriving at the surplus for the year.

8.2 Expenditure incurred for the purpose of acquiring, extending and improving assets of a permanent nature by means of which is to carry on the business for the purpose of increasing the earning capacity of the business has been treated as Capital Expenditure.

## **9. Taxation**

PGIA is exempted from paying income tax under the section 7 (b) (v) of Inland Revenue Act No. 10 of 2006.

## **10. Government Grants**

Grants received from the General Treasury of the Government of Sri Lanka are recognised as income in the period in the period in which the related costs are recognised.

Government grants utilized to acquire assets that will be expensed in subsequent periods are recognised as Deferred Income. Government Grants represented by other assets including cash and cash equivalents, less liabilities (other than liabilities on account of the Grants received) are recognised as liabilities.

Summary of the allocated, released and the balance of the treasury grant is as follows:

Description	2016 Amount Allocated (Rs.)	2016 Amount Released (Rs.)	Balance (Rs.)
<b>Recurrent Grant</b>	20,000,000	20,000,000	-
<b><u>Rehabilitation &amp; Improvements</u></b>	6,000,000	6,000,000	-
1. Buildings	-	-	-
2. Vehicles	-	-	-
3. Equipment	-	-	-
4. Others	-	-	-
<b><u>Acquisition of Assets</u></b>			
1. Books & Periodicals	750,000	750,000	-
2. Lab & Teaching Equipment	- 3,250,000	- 3,250,000	- -
3. Office Equipment	-	-	-
4. Furniture & Fittings	-	-	-
5. Sports Goods	-	-	-
<b>Total</b>	<b>30,000,000</b>	<b>30,000,000</b>	<b>-</b>

<b>POSTGRADUATE INSTITUTE OF AGRICULTURE</b>			
<b>APPROPRIATION ACCOUNT FOR THE YEAR ENDED 31<sup>ST</sup> DECEMBER 2016</b>			
		<b>2016</b>	<b>2015</b>
		<b>Rs.</b>	<b>Rs.</b>
B/F	Excess of Income over expenditure	38,996,509	40,129,963
	Balance B/F from previous year	291,841,954	250,888,647
		<b>330,838,463</b>	<b>291,018,609</b>
<b>ADD :</b>			
	01. Income in respect of past year	1,515,619	823,345
	02. Other adjustments - Credits	-	-
		<b>332,354,082</b>	<b>291,841,954</b>
<b>LESS :</b>			
	01. Adjustment- Accumulated Depreciation		-
	02. Payments in respect of past year	-	-
	03. Adjustments - Debits		
	04. Capital expenditure from Income & General Reserve	-	
		-	-
		<b>332,354,082</b>	<b>291,841,954</b>
<b>Prof. S. Samita</b>		<b>K.A.I.S. Ranasinghe</b>	
<b>Director/Accounting Officer</b>		<b>Senior Assistant Bursar</b>	

<b>INDIRECT METHOD CASH FLOW STATEMENT</b>			
<b>POSTGRADUATE INSTITUTE OF AGRICULTURE</b>			
<b>CASH FLOW STATEMENT FOR YEAR ENDED 31 ST DECEMBER 2016</b>			
		<b>Rupees "000"</b>	
	<b>Note / Schedul</b>	<b>2016 Actual Rs.</b>	<b>2015 Actual Rs.</b>
<b>Cash Flows from Operating Activities</b>			
Surplus/(deficit) from ordinary activities	13	38,997	47,078
<b>Non -cash movements</b>		<b>38,997</b>	<b>47,078</b>
Depreciation on property, plant and equipment	21	12,632	12,379
Provision for gratuity	16	2,312	662
Provision for Bad and Doubtful Debts	2	(4)	346
Interest on Investments	15	(28,622)	(16,566)
Amotization of Govt. Grant	07	(12,462)	(12,119)
Amotization of Other Capital Assets		(6,777)	(5,878)
Gain on sale of property, plant and equipment	15		(796)
Payment of Gratuity		(643)	(80)
<b>Increase/Decrease in working capital</b>			
Increase/(decrease) in inventories	03	148	209
Increase/(decrease) in Deferred Tuition Fees Income	08	5,638	2,840
Increase/(decrease) in payables	09	(600)	(623)
Increase/(decrease) in Accrued expenses/provisions	10	8,114	532
Increase/(decrease) in other current assets	05	497	(1,350)
Increase/(decrease) in trade & other receivables	02	(505)	(3,469)
Increase/(decrease) in Pre-payments	04	33	301
<b>Net cash flows from operating activities</b>		<b>18,757</b>	<b>23,466</b>
<b>CASH FLOW FROM INVESTING ACTIVITIES</b>			
Purchase of property, plant and equipment	E	(2,539)	(5,618)
Rehabilitation expenses	E	(823)	(2,606)
Sale of property, plant and equipment	15		796
Deposit of investments	05	(141,500)	(80,297)
Withdrawals of investment	05	101,500	31,181
Interest on investments	15	23,591	18,723
<b>Net cash flows from investing activities</b>		<b>(19,770)</b>	<b>(37,822)</b>
<b>CASH FLOW FROM FINANCING ACTIVITIES</b>			
Govt grant: Capital		10,000	10,000
Research Grant Received	F	10,262	17,404
Research Grant Payments	F	(11,720)	(15,825)
<b>Net cash flows from financing activities</b>		<b>8,542</b>	<b>11,579</b>
<b>NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS</b>		<b>7,529</b>	<b>(2,776)</b>
Cash & Cash Equivalents at the beginning of the Period		1,954	4,730
Cash & Cash Equivalents at the end of the Period		9,483	1,954
<b>Net Increase in Cash and Cash Equivalents</b>		<b>7,529</b>	<b>(2,776)</b>
<b>Prof. S. Samita</b>		<b>K.A.I.S. Ranasinghe</b>	
<b>Director/Accounting Officer</b>		<b>Senior Assistant Bursar</b>	

**POSTGRADUATE INSTITUTE OF AGRICULTURE**

**STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31<sup>ST</sup> DECEMBER 2016**

(in thousands of currency units)

	<b>Accumulated Fund</b>	<b>Revaluation Reserve</b>	<b>Translation Reserve</b>	<b>Total</b>
<b>Balance as at 31 December 2014</b>	310,725,795	-	-	310,725,795
Changes in accounting policy	-	-	-	<b>310,725,795</b>
Capital Grant spent & unspent during the year	(8,078,019)	-	-	(8,078,019)
Increase in Specific Internal Funds	1,579,300	-	-	1,579,300
Net gains and losses not recognised in the				-
Gain on Property revaluation		62,813,250		62,813,250
Previous years Decrease in Gain on Property revaluation	7,004	(1,388)		5,616
Tuition fee students registered prior to 2008	985,317			985,317
Previous years Increase in Accrued Expenses - Lecture payment	(2,536,750)			(2,536,750)
Previous years Decrease in Accrued Expenses	143,330	-		143,330
Previous years Increase in Accrued Expenses - Exam payment	444,269			444,269
Amotization of Revaluation Assets	823,345	(823,345)		-
Surplus/(deficit) for the period	40,129,963	-	-	40,129,963
<b>Balance as at 31st December 2015</b>	<b>344,223,554</b>	<b>61,988,517</b>	-	<b>406,212,071</b>
Capital Grant spent & unspent during the year	(9,215,452)			(9,215,452)
Increase in Specific Internal Funds	(1,457,650)			(1,457,650)
Prior Year Adjustments				-
Gain on Property revaluation		8,923,703		8,923,703
Prior Year Increase in Accrued Expenses				-
Prior Year Decrease in Accrued Expenses				-
statements of financial performance		-	-	-
Amotization of Revaluation Assets	1,515,619	(1,515,619)		-
Surplus/(deficit) for the period	38,996,509	-	-	38,996,509
<b>Balance as at 31 December 2016</b>	<b>374,062,580</b>	<b>69,396,602</b>	-	<b>443,459,182</b>
<b>Prof. S. Samita</b> Director/Accounting Officer		<b>K.A.I.S. Ranasinghe</b> Senior Assistant Bursar		

**POSTGRADUATE INSTITUTE OF AGRICULTURE**  
**UNIVERSITY OF PERADENIYA**  
**STATEMENT OF FINANCIAL POSITION AS AT 31<sup>ST</sup> DECEMBER 2016**

	Note	As at 31/12/2016		As at 31/12/2015	
ASSETS		Rs.	Rs.	Rs.	Rs.
<b>Current Assets</b>					
(a) Cash & cash equivalents	01	9,482,951		1,954,332	
(b) Trade & other receivables	02	47,789,489		45,004,000	
(c) Inventories/Stocks	03a	1,378,759		1,088,729	
(d) Text Books & PGIA Publication	03b	1,016,139		1,454,279	
(e) Prepayments / Periodicals	04	79,571		112,251	
(f) Loans & advances	05.1	3,199,026		3,381,240	
(g) Security and Other Deposits		157,800	<b>63,103,734</b>	157,800	<b>53,152,630</b>
<b>Non-current Assets</b>					
(a) Staff Loans & advances	05.1	3,208,277		3,523,097	
(b) Investment	06	343,204,567		300,449,966	
(c) Property, plant & equipment	07	122,855,874	<b>469,268,718</b>	123,179,064	<b>427,152,127</b>
<b>Total Assets</b>			<b>532,372,452</b>		<b>480,304,757</b>
<b>LIABILITIES</b>					
<b>Current Liabilities</b>					
(a) Deferred Income	08.1	28,958,333		24,612,500	
(b) Payables	09	16,236,964		16,836,679	
(c) Accrued expenses/provisions	10	28,549,329	<b>73,744,626</b>	20,435,320	<b>61,884,499</b>
<b>Non-current Liabilities</b>					
(a) Deferred Income	08.1	3,633,333		2,341,667	
(b) Provision for gratuity	11	11,535,311	<b>15,168,644</b>	9,866,520	<b>12,208,187</b>
<b>Total Liabilities</b>			<b>88,913,270</b>		<b>74,092,686</b>
<b>Total Net Assets</b>			<b>443,459,182</b>		<b>406,212,071</b>
<b>NET ASSETS/EQUITY</b>					
Accumulated fund	12	29,224,616		38,440,068	
Revaluation Surplus	13a	69,396,602		61,988,517	
Surplus/(Deficit) - B/ B/F	13	332,354,082		291,841,954	
Restricted funds	14	12,483,882	<b>443,459,182</b>	13,941,532	<b>406,212,071</b>
<b>Total Net Assets/Equity</b>			<b>443,459,182</b>		<b>406,212,071</b>

"The Accounting policies on pages II to VI and Notes on pages 11 to 23 form an integral part of these Financial Statements. The Board of Management is responsible for the preparation and presentation of these Financial Statements. These Financial Statements were approved by the Board of Management and signed on their behalf,"

Prof. S. Samita  
Director/Accounting Officer

K.A.I.S. Ranasinghe  
Senior Assistant Bursar





**AUDIT COMMITTEE REPORT – 2016**  
**(As reported by the Audit Committee Chairperson Mrs. WG Chandrika)**

**Introduction**

The Audit Committee was appointed for the year 2016 comprising three non-Executive members of the Board of Management of the Post Graduate Institute of Agriculture with chairing the representative of the General Treasury under the provisions made on paragraph 7.4.1 of Public Enterprises Guideline for Good Governance. The composition of the audit committee for the year is as follows.

1. Ms. W.G. Chandrika, Chairman – Director, Dept. of Public Finance, General Treasury
2. Prof. DKNG Pushpakumara, Member - Dean/ Faculty of Agriculture University of Peradeniya
3. Prof. SK Pinnawala, Member - Member of the Board of Management

In the year 2016, 05 Nos. Audit Committee meetings were held with the participations of the Director, Deputy Registrar, Senior Assistant Bursar of the Postgraduate Institute of the Agriculture and the Internal Auditor of the University Grants Commission as invitee with Deputy Internal Auditor and Senior Assistant Internal Auditor of the University of Peradeniya. The Superintendent of Audit of the University of Peradeniya who is the representative of the Auditor General also participated. The Audit Committee performs according to the scope specified in the Public Enterprises Guidelines for Good Governance and make recommendations to strengthen the Internal Control Systems and enhance the Financial Management & Administration Procedures in the Postgraduate Institute of Agriculture.

**Progress during the year**

During the year under review the Audit Committee has made the several recommendations, instructions and proposals which have paved the way towards success of the scope. They are summarized as follows.

- a) The Postgraduate Institute of Agriculture was able to obtain an unqualified Audit Opinion from the Auditor General on the financial Statements for the year ended 31<sup>st</sup> December 2016.
- b) Reviewed, evaluated and made recommendations of 05 Nos. of major Internal Audit Reports issued by the Internal Audit Division of the University of Peradeniya.
- c) Liaised with the External Auditor (Auditor General) and directed to the officers and Internal Auditors to take follow up actions on highlighted the flaws and lapses on audit queries and reports of the Auditor General.
- d) Continuously monitoring and the replies forwarded in relation with to audit queries and its follow up actions.
- e) Review and made recommendations for verification of library materials and preparation of fixed assets register for library books.
- f) Review and made recommendations for preparation of fixed assets register for Computers and Accessories of the Institute.
- g) Review the internal controls systems over financial reporting and other related core areas such as vehicle administration, contract administration, control of overtime payments, purchasing of capital goods, conducting annual stores verification, Inventory verification, Library material

verification, collection of over dues student receivables and make recommendations to strengthen the systems and controls.

### **Failure and Justification**

Internal Audit Division has not been performed at the Postgraduate Institute of Agriculture since its establishment and all the internal audit activities have been executed by the internal audit division of the University of Peradeniya with extending their Internal Audit Activities beyond the scope of Internal Audit under the limited human and capital resources. Internal Audit Division of the University of Peradeniya has expanded its duties of internal audit not only to the Postgraduate Institute of Agriculture but also to Postgraduate Institute of Science, Postgraduate Institute of Humanities & Social Sciences.

### **Future Plans**

The Audit Committee has further extended on its objectives to reviewing the systems and controls and make its recommendations to strengthen the internal control systems for upgrading the financial and administrative procedures of the Postgraduate Institute Agriculture.

**Chairperson**  
**Audit Committee**