

Annual Report - 2017



Botanical Gardens Trust Fund
Department of National Botanical Gardens
Peradeniya

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Development of Botanical Gardens in Sri Lanka & Trust Fund for welfare

Annual Report – 2017

Approval had been granted by the Cabinet meeting held on 07/02/1996 to set up a Trust Fund for the development of botanical gardens and its welfare considering a paper themed setting up a Trust Fund for “improving botanical gardens in Sri Lanka and providing welfare” dated 15/12/1995 submitted by the then Minister in charge of Agriculture, Lands and Forest Resources.

25% out of the annual income from ticket sale at botanical gardens is credited to the Trust Fund as its income for improving botanical gardens and its welfare. Provision is made under 2201 Head (Capital transfers) for this reason in the approved estimate of the Treasury every year. Moneys required for expenses of the Fund are obtained by an imprest of the Department over requisites and is recovered at the end of the year. In addition, provisions are there to increase avenues of income of this Fund.

This Fund is managed by a Board of Trustees and Secretary of the line Ministry of the Department of National Botanic Gardens is Chairman of the said Trust Fund (Presently the Ministry of Sustainable Development, Wildlife and Regional Development), The Director General of Department of National Botanical Gardens acts its Secretary and the Director-Budget of the Treasury acts a member of the Trust Fund Board.

Botanical Garden Trust Fund

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|---------------------------------|--|
| 1. Name of Fund | : Trust Fund for development and welfare of botanic gardens in Sri Lanka. |
| 2. Type | : Development activities in botanical gardens and financial assistance for recurrent needs at times of necessity |
| 3. Related circulars | : I. Commencement of Fund –as per Fund Ordinance No. 09 of 1917
II. Treasury circulars on Accounting and reporting accounts
Circular No. 836 dated 16 th August 1977. |
| 4. Date of Establishment | : 20 th December, 1996 |
| 5. Office | : Head office, Department of National Botanical Gardens in Peradeniya |
| 6. Bank | : Bank of Ceylon, Peradeniya branch, Account No. 0007040848 |

7. Objectives of Fund:

- ✓ Taking action for further improving the image of the botanical gardens in Sri Lanka and abroad.
- ✓ Planning and implementing meaningful programs in respect of conservation attempts for plants and environmental education
- ✓ Improving facilities and activities leading to broad base scientific know-how of scientists attached to the botanical gardens as well as extending financial assistance to purchase equipments needed.
- ✓ Taking steps to further improve plant collections.
- ✓ Improving activities in technical fields on environmental education, conservation and improvements of botanical gardens.
- ✓ Undertaking any urgent construction required for visitor facilitation and scientists, arriving at the Botanic Gardens.
- ✓ Covering recurrent expenditure for any given specialized programme.

Financial progress of Fund in year 2017

Credit balance as at 01.01.2017	=	Rs. 153,980,145.33
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Added:

Income (Credits) for year 2017	=	Rs. 172,181,440.00
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Total		Rs. 326,161,585.33
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Less:

Expenditure (debits) for year 2017	=	Rs. 149,969,647.38
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Treasury balance as at 31.12.2017	=	Rs. <u>176,191,937.97</u>
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*(this balance is only a nominal balance)

Following programmes have been undertaken in the year 2017 by utilizing funds of the Trust Fund to achieve main objectives of the Botanical Garden Trust Fund.

A monthly newspaper supplementary named “Wanadiviya” is printed by the Ministry of Sustainable Development and Wildlife and part of total expenditure incurred for the same was borne by the Department of National Botanical Garden. This newspaper helps to bring people closer to nature and educated them on flora and fauna.



- 2000 copies each of books on “**Foliage Plant Cultivation**” and “**Orchid cultivation**” were printed as a tool to educate those interested in flower and plant cultivation. Income generated through this was accounted as an additional income of the Botanical Garden Trust Fund.

Furthermore financial assistance was provided from the Botanical Garden Trust Fund to officers of the Department for local and foreign training to improve their knowledge, skills and outlook on matters related to uplifting activities of the Botanic Gardens.

Workshops and training programmes facilitated financially.

- ✓ South East Asia Botanical Gardens Seminar and workshop held in Vietnam
- ✓ International Seminar and workshop on Botanical Gardens held in China
- ✓ Workshop on Management for Chief Internal Auditors held in Malaysia
- ✓ Two day in-service workshop held for the year 2017
- ✓ Herbarium Management Techniques workshop conducted at the National Herbarium



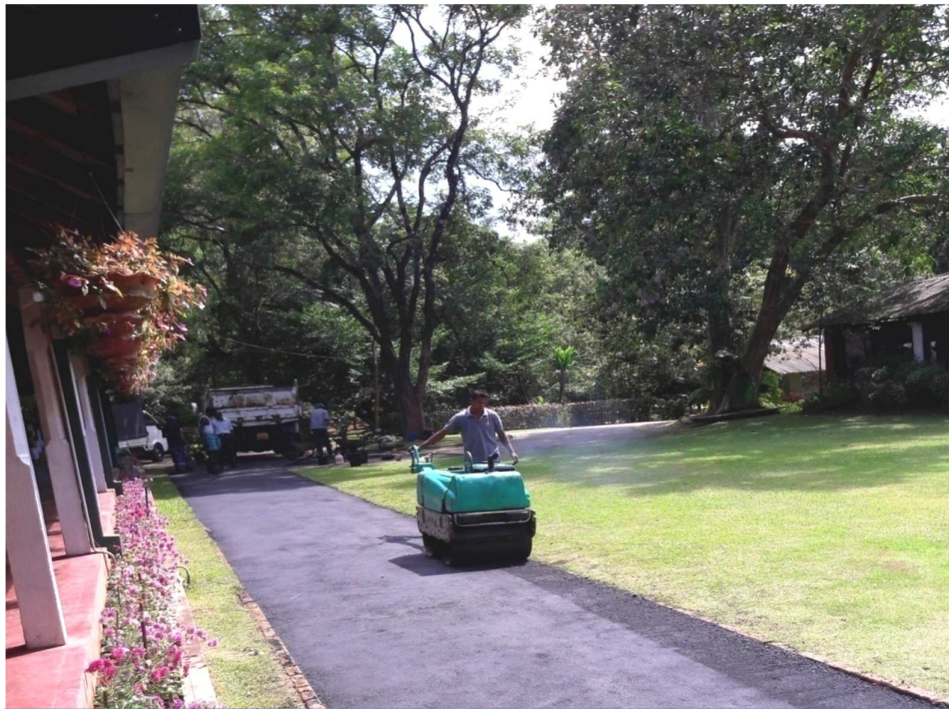
A scene of the Annual two day in-service training

Special development activities completed with allocations of Fund in year 2017

Peradeniya Royal Botanical Garden

- A part of a dilapidated road was developed in the year 2016 and the remainder was completed in 2017. Rs. 3.4 Mn. was allocated from the Botanical Garden Trust Fund for this purpose.

Development of the road will enable visitors to walk around the garden with ease.



A part of the renovated road

- In line with increase of visitors, heaping of solid materials such as polythene, plastic in the garden had alarmingly increased. Accordingly, action was taken to set up a Waste Management System for duly disposing of garbage in the year 2017. Around Rs.1.6 Mn. was spent by the Trust for this system.



New Garbage Management Baskets

- Action was taken to put up name boards for the convenience of visitors with intention of better information. Rs. 0.5 Mn. was allocated for name boards.



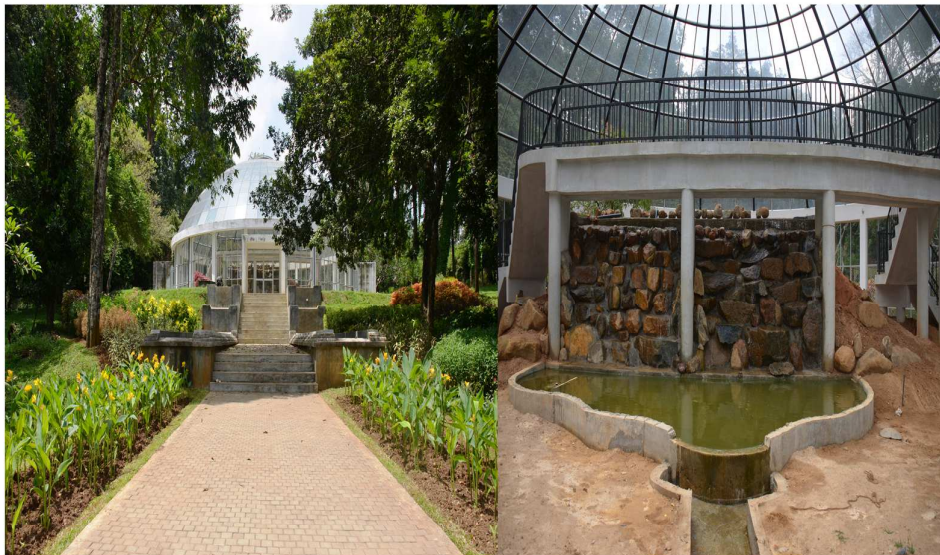
Newly fixed sign boards

- Renovation activities of officer quarters which commenced in 2016 was completed with a further expenditure of Rs.5.4 Mn. during this year. Besides, utilizing Rs. 4.7 Mn. of the Trust Fund a historical building at the Royal Botanic Garden dating back to the 1900's was also conserved.



Building constructed at beginning of Royal Botanical Garden – being renovated

- The construction of a Plant Conservatory at the Royal Botanical Garden Peradeniya was another special undertaking of the current year. The Botanical Garden Fund allocated about Rs.3 Mn. the same.



A Scene of the plant conservatory

- Allocation needed to maintain the Garden attractively was also provided.

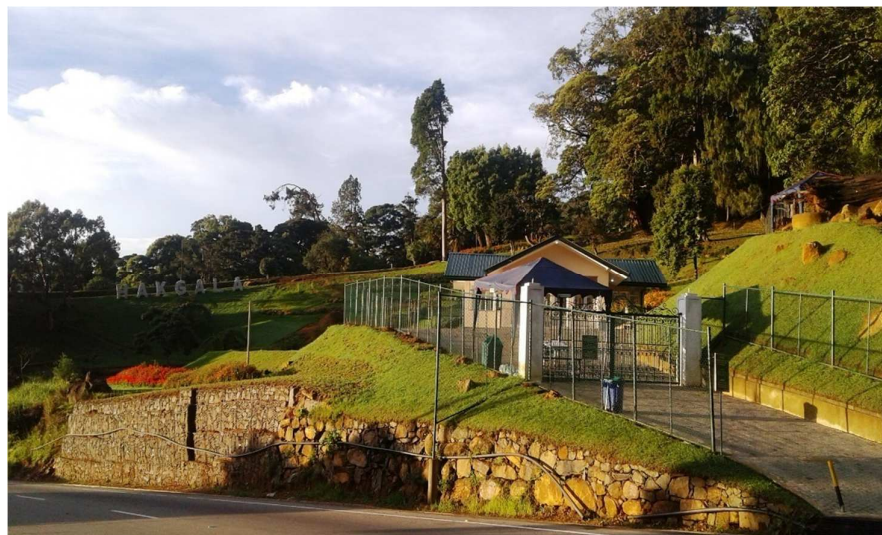


Peradeniya Botanical Garden

- The Botanical Garden Trust Fund contributed a cost of Rs.3.1 Mn. in 2017 to procure equipment required for maintenance activities.

Hakgala Botanical Garden

- With the increase of visitors to the Botanic Gardens at Hakgala, severe congestion was experienced at access roads. As a way out, a new entrance was open up. An allocation of Rs. 6.4 Mn. was made by the Botanical Garden Trust Fund, for construction of the new access to the garden.



New access to the Botanical Garden, Hakgala.

- The “Knox” summer house was renovated at a cost of Rs. 0.2 Mn. this year.



“Knox” Summer Hut – Following renovations

- A waste management system was established for proper disposal of waste that was collected at the gardens. Rs. 4.2 Mn. was spent for construction of a waste management site at the gardens.



The new waste management building

- Officers reporting for duty at the Garden from various parts of the island face serious issues in long distance transport. As a solution to this, construction of official quarters with provision of about Rs. 7.7 Mn. commenced.



4 unit new official quarters being constructed

- Chain Link fencing fixed around the Garden was renovated to secure property of the gardens. Rs. 3.2 Mn. Was expended for the same.



Chain Link Fence being renovated

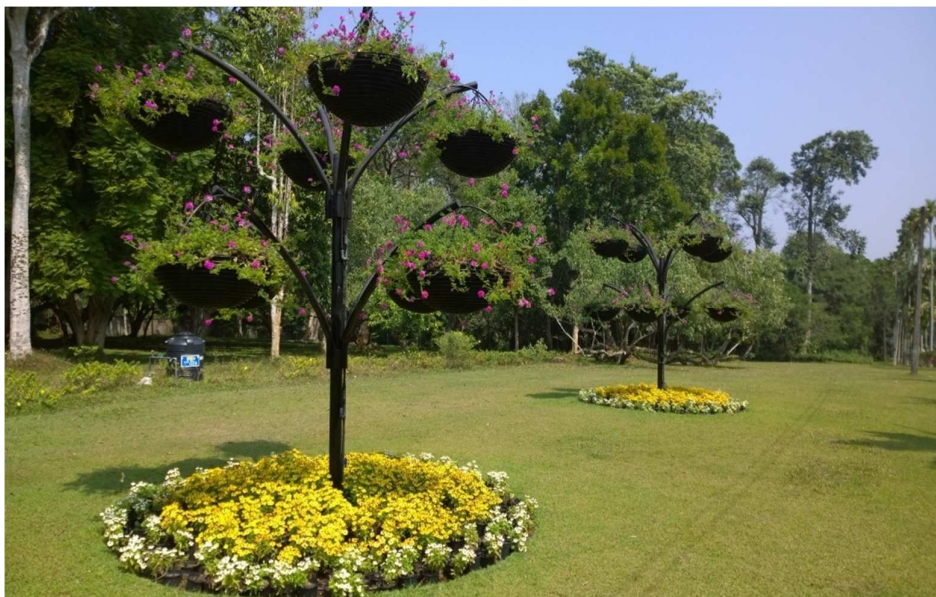
Gampaha Botanical Garden

- Construction of the Orchid House at the Gampaha Botanical Garden by the State Engineering Corporation was expedited during the year. Rs. 4.8 Mn. had been allocated for this construction of which around 95% has already been accomplished.



Orchid House - in final touches

- With the intention of attracting visitors to the Garden a number of new flowering plant arrangements have been set up in the garden. Rs. 2.5 Mn. was allocated from the Botanical Garden Trust Fund, for these flowering structures.



New Flower structures introduced to the garden.

- The Aththanagalu Oya flows at one end along the Gampaha garden, a part of boundary of the gardens along the river has eroded. Thus construction of the bank of the Aththanagalu Oya was started this year by the Sri Lanka Land Reclamation and Development Corporation. A sum of Rs. 5.2 Mn. was spent this year.



A scene of the bund of the Aththanagalu Oya surrounding one end of the botanical garden

- The Botanical Garden Trust Fund has taken steps to allocate Rs. 0.5 Mn. in the current year for refurbishing the Plant Sales Outlet and the shade house at the Botanic Gardens.
- The boundary walls around the gardens was renovated this year at a cost of Rs. 2.2 Mn. from the Botanical Garden Trust Fund.

Avissawella Wet Zonal Botanical Garden

- The Avissawella Garden is gaining in popularity and the new boat yard was constructed to provide visitors with an experience with a difference. A sum of Rs. 2.4 Mn. was spent on facilitating this additional feature of providing boat rides to visitors.



Boat yard erected at Avissawella Botanical Garden

Floriculture Research and Development Section

- In keeping with government policy and sustainable development goals of alleviation of poverty and providing self employment; this year too initiative were taken to assist small and medium flower growers around the country.
 - i. A sum of Rs. 1.8 Mn was spent on organizing and conducting plant sales and exhibitions as part of marketing assistance provided to flower growers to enhance their income generation.



Flower Exhibitions organized for marketing products of flower growers

- ii. Under the “Suwahas Mal” programme implemented island wide materials for infrastructure development of plant nurseries were provided at a cost of Rs. 10.7 Mn. This was done in addition to providing advisory services to flower grower and this programme also attracted new grower to the floriculture trade.



A scene of handing out materials needed for Flower growers

Materials Distributed Among Member of “Suwas Mal” organization in 2017

Sub No.	District	Pots (20cmx25cmx14.5cm)	UV treated Polythene Roll	Shade Net Roll				
				(3mx100m)50%	(3mx100m)60%	(3mx100m)70%	(3mx100m)70%	(3mx100m)80%
1	Kurunegala	3500	4	5,17m	5	10	2,40m	4
2	Ampara	500	2	-	1	1	-	1
3	Monaragala	1000	-	-	-	-	-	-
4	kegalle	3000	2	-	3	6	-	16
5	Mahanuwara	3000	1	5	5	4	2	4
6	Rathnapura	300	-	-	-	-	-	1
7	Mathale	3000	1	4	-	-	1	5
8	Hambanthota	7000	2	4	-	8	-	-
9	Gampaha	8000	4	5	13	52	-	-
10	Narahenpita	2500	2	4	7	4	-	9
11	Hakgala	-	10	-	-	-	-	-
12	Meegalaawa	-	-	-	-	-	-	2
13	Puththalama	-	-	-	-	-	-	7
Total		31800	28	27.17 m	34	85	5.40 m	49

- A sum of Rs. 4.7 Mn. was utilized for renovation and construction activities.
- Rs. 1.2 Mn. was also utilized for procuring laboratory equipment as well as for maintenance of laboratories.

Research Conducted By the Floriculture Research and Development Unit

- ✓ A study on the effect of on fertilizer and hormones on medium sized Dendrobium plants aged 4-8 months.

Microproagation of Oncidium from flower stalk explants.

- ✓ Exploring new packing techniques for long distance transport of Jasmin and Plumania
- ✓ Improving drying techniques of aromatic flowers for production of “**Pot Puree**”
- ✓ Investigating the effect of plant extracts and essential oils for controlling Bacterial Blight on *A. adreanum*.
- ✓ Exploring the possibility of utilizing various Hormones supplemented to a basal and MS solution for tissue culture of Dendrobium flower buds.
- ✓ Investigating fertilizer concentrations and application techniques for improving flowering of Anthurium “**Avo Red**”
- ✓ Effect of micro nutrients on development and growth of Anthurium and Aglaonema.
- ✓ Effect of hormones on initiation and growth of axillary shoots from detopped *Dracaena reflexa*
- ✓ Substituting organic compounds to the basal medium for tissue culture of two species of Gerbera
- ✓ Developing micro propagation protocols for conservation of chirita, Tabebuia and foliar Anthurium species.
- ✓ Developing a post harvest techniques for cut leaves, for longevity and extended freshness.
- ✓ Growth and Development of Orchids and Anthuriums using Bio film bio fertilizers.
- ✓ Investigating the possibility to utilize *Zamioculcas zamiifolia* as a value added product for interior decoration through hydroponic systems.

Education Training Centre

- The Education and Training Centre is involved in conducting classes, seminars, and training programmes for those interested in floriculture and landscape gardening.

Rs. 0.7 Mn. was utilized from the Botanic Gardens Trust Fund for recurrent expenditure of the Education and Training Center.



A scene of training class

- A sum of Rs. 1.2 Mn. has been allocated in this year for renovations of the Education and Training Centre.

Medicinal Plant Garden Ganewaththa

- The medicinal plant garden, Ganewaththa renders immense services to create public awareness on identification, conserving utilizing and popularizing medicinal plants in Sri Lanka.
- A sum of Rs. 0.7 Mn. was spent from the Botanic Garden Trust Fund for this purpose.



Conducting education and training programmes on medicinal plants.

National Herbarium

The National Herbarium plays a pivotal role on conserving and authentication of our native flora. The Botanic Garden Trust Fund has taken steps to set aside an allocation of around Rs. 4.8 Mn. this year for this purpose.

Special Assignments conducted by the National Herbarium in 2017

- Under the plant research programmes, 23 field studies were conducted (14 one day, 06 two day and 03 three day). During these field trips 1185 live flowering plant specimen, 113 fern specimens and 47 mosses were collected.
- Among the threatened plants that were identified i.e. 01 plant that was extinct one which belonged to a species that is considered extinct in the wild 07 plants that were critically endangered, 60 endangered, 85 vulnerable and 59 near threatened plants were identified.



Rinorea bengalensis plant referred in the 2012 Red Data book as extinct was found at Roomassala field study under the Botanical survey in 2017.

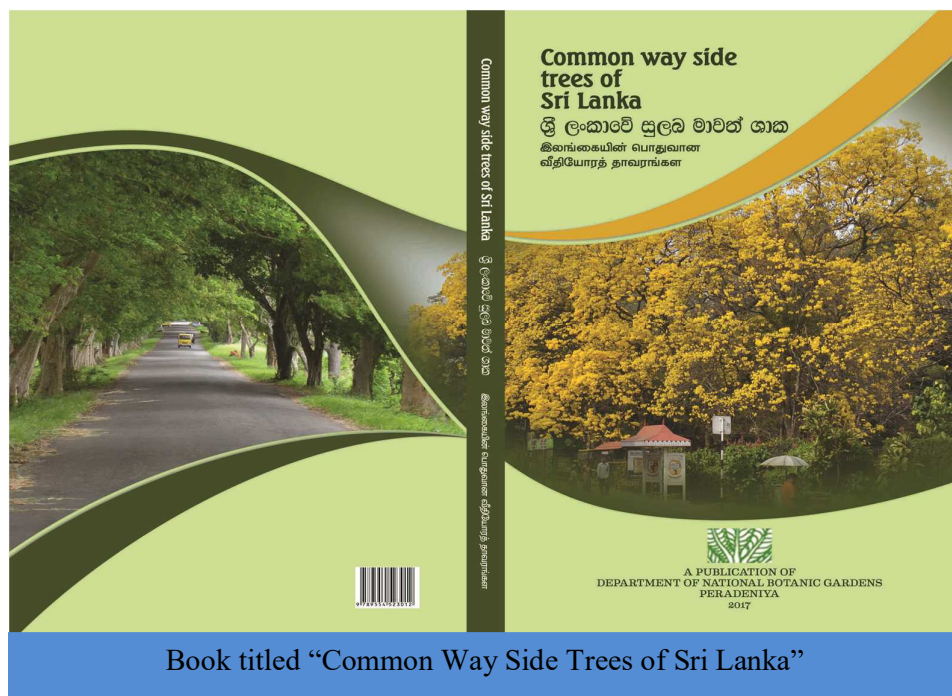
- Specimen of 2254 flowering plants, 91 ferns and 225 mosses were identified and authenticated for various institutes.
- In addition, 102 wood sample tests were conducted for legal purposes and authentic information was provided to relevant sources.
- 25 workshops and educational programmes on Bio Diversity conservation and herbarium management techniques were conducted. 1174 students, undergraduates and officers from public and private sector attended there programme.

- The National Herbarium has immensely contributed to plant identification and authentication, data collection and management as well as conducting botanical surveys for compiling the **“National Red list of plant in Sri Lanka”**.
- A lower plant conservation programme too has been initiated by the National Herbarium with a collection of mosses and lichens which will also be showcased to visitor in the future.
- A one day workshop on Bio Geography was organized together with the Biological Institute, Colombo. Participants were able to follow lectures on Bio Geography and practical approaches by Dr. Nico Cellinesa scientist attached to the Department of Biology University of Florida USA and Dr. Robert Douglas Stone, Senior Researcher, Quasulu –Natal university in South Africa. Mrs. Prabha Amarasinghe, from the Department of Biology University of Florida USA also participated as a resource person.



- A one day workshop on Herbarium techniques and Management was held with the participation of international resource persons for officers of the Department of National Botanical Gardens, Dr. Nico Cellines of the University of Florida, USA and Dr. Robert Douglas Stone, Senior Researcher, Quasulu –Natal university in South Africa participated as resource persons.

- A workshop of a duration of 05 days was conducted for assessing the threat level of the Ebenaceae family with the Bio-diversity Secretariat and IUCN. Mr. George E. Schatz, a specialist on Red Data surveys for the IUCN from the Misuri University, USA took part as a resource person. Scholars from various local universities and officers from the National Herbarium including 4 Botanists from India participated.
- Purchasing Barcode labels very essential for management of data at international level has been commenced. Bar code labeling will be continued for all (Dry Specimen) specimens conserved at the Herbarium.
- A book named **“Common Way Side Trees of Sri Lanka”** containing 100 coloured photos of flowering trees found on way sides in Sri Lanka and their details was compiled and printed.



Book titled “Common Way Side Trees of Sri Lanka”

- A scientific poster depicting diversity of mosses found in selected areas in the Central Province was compiled and presented at an International seminar (27th Pacific Forestry Commission)

**Summary of Special Development Works Accomplished In Year 2017
Under The Trust Fund**

	Job	Estimate Rs.	Total expenditure as at 31.12.2017 Rs.	Balance Rs.
1	Expenditure of Trust Fund	1,015,300.00	1,011,104.28	3,895.72
2	Expenditure for improving facilities of Botanical gardens	32,675,000.00	32,659,883.26	15,116.74
3	Expenditure towards the Royal Botanical Garden, Pearadeniya.	28,310,000.00	28,195,361.14	114,638.86
4	Expenditure for development activities of the Botanic Gardens, Hakgala.	35,911,000.00	35,889,703.69	21,296.31
5	Expenditure for development activities of Botanic Garden, Gampaha.	17,250,000.00	17,231,548.38	18,451.62
6	Expenditure for development of the Medicinal Plant Garden, Ganewathta	710,000.00	706,966.44	3,033.56
7	Expenditure for development activities of the National Herbarium	4,8550,000.00	4,841,184.98	8,815.02
8	Expenses for activities of the Education Training Centre	2,250,000.00	2,246,867.02	3,132.98
9	Expenditure for research and Development activities of the Floriculture, Research and Development Unit.	24,626,000.00	24,612,131.04	13,868.96
10	Expenditure for development of the Wet zone Botanical Garden, Avissawella	2,403,000.00	2,402,815.87	184.13
Total		150,000,000.00	149,797,566.10	202,433.90

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