



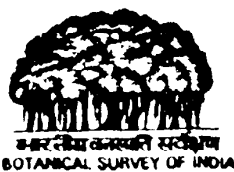
**A  
DIRECTORY OF BOTANIC GARDENS  
AND  
PARKS IN INDIA**

**R. K. CHAKRAVERTY  
&  
D. P. MUKHOPADHYAY**

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## FOREWORD

Botanic gardens, public gardens, parks and other greeneries form an effective network for conservation of plants of utility and aesthetic value besides their role in protecting ecological balance preventing environmental degradation and maintaining a pollution free pure natural atmosphere.

The development of such conservation centres in India has been under active consideration of both central and state governments. Botanic Gardens, though form an integral part of the cultural fabric of a nation, they hold unique germplasm of native and exotic species. In these days of habitat loss, botanic gardens function as nurseries or refugia of plants driven to extinction. The two recent examples illustrate the significance of botanic gardens. "The lost tree of Easter Island" (*Sophora toromiro*) was driven to extinction in Easter Island. The Botanical Garden of the University of Bonn is proud to possess this beautiful tree. The rediscovery of *Ramosmania heterophylla* in the small Indian ocean island of Rodriguez in 1980 led to its multiplication at the Royal Botanic Garden, Kew. *Ramosmania heterophylla* was thus saved from extinction. In India *Frerea indica* is saved from extinction through multiplication in the Botanical Survey of India. In the country we require a chain of botanic gardens in different phytogeographical regions. As a first step, it is necessary to take stock of the existing Botanic Gardens, their status and holdings.

Botanical Survey of India was entrusted with the task of preparing a draft document on existing parks and gardens. Sometimes in June, 1982 the work was assigned to Dr. R. K. Chakraverty and Dr. D. P. Mukhopadhyay of the Indian Botanic Garden who initially prepared a draft document of 131 pages in 1983 which was placed in the IUCN – WWF Plant Campaign meeting held in the Department of Environment, New Delhi in August, 1983 and the work was highly appreciated in the Threatened Plants Newsletter, No. 12, November, 1983. It may be worthwhile to quote extracts of the comments made therein.

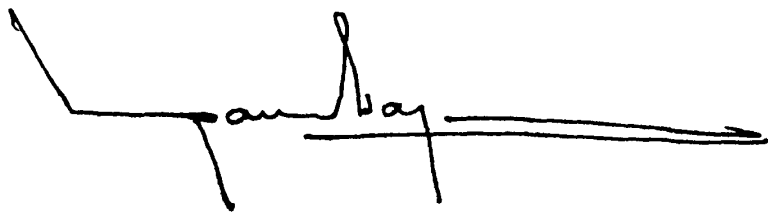
"more substantial in weight and size is a 131 page report called "A Directory of Botanic Gardens in India" This gives details of 55 Indian Botanic Gardens and botanical institutions. Each account in the form of a data sheet outlines plant holdings and scientific research as well as providing handy

information for the visitors, such as the nearest railway station  
It also gives information on climate, geography and soil type. An excellent feature is the set of short paragraphs on small or developing gardens where full data sheets are not yet possible”

Encouraged by such observations this document was subsequently further enlarged with incorporation of more centres in India by collecting information based on first hand observations made by the authors. Further details were supplemented through ‘Questionnaire’ sheets and data collected by them.

By printing this Directory, by the Botanical Survey of India, it is hoped that the long felt necessity of having an authentic account of the parks and gardens in India is fulfilled. I congratulate the authors—Dr. R. K. Chakraverty and Dr. D. P. Mukhopadhyay for completion of this most useful and valuable work. I hope that people interested in gardening, conservation and documentation will be immensely benefited by this publication.

This publication will be considered worthwhile and duly rewarded if it promotes to the establishment of more Botanic Gardens and parks in the country with a view to generate deep consciousness amongst the public for the care and love of plants. Any new information about the gardens and parks and additions to this will be appreciated.



January 1, 1990

( M. P. NAYAR )  
*Director*

Botanical Survey of India, Calcutta

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## INTRODUCTION

The directories of scientific institutions are useful in several ways. They provide factual data on their location, activities, faculty, management and particularly, about the facilities available there. They not only facilitate their utilization by common people, but also help in interinstitutional links and interdisciplinary coordinated research and promote educational, academic and even social activities.

In recent times, the Botanic Gardens have amplified and diversified their activities and functions in various directions. A brief statement of what should have been the objectives of Botanic Gardens is also included. Some institutions of the world, though known by the name 'Botanic Gardens' are excellent centres of taxonomic and horticultural research.

On the global basis, the first few institutions that are commendable in this category are : The Royal Botanic Gardens at Kew, Missouri Botanic Gardens at St. Louis, New York Botanic Gardens at New York, Hiroshima Botanical Garden at Hiroshima, National Garden, Shinjuku Gyoen at Tokyo, Royal Botanic Garden at Edinburgh, Montreal Botanic Gardens at Montreal, Brooklyn Botanic Garden and Arboretum at Brooklyn, Fair Child Tropical Garden at Miami, Beijing Botanical Garden at Beijing, Botanic Gardens at Singapore, Royal Botanic Gardens at Sydney and Botanic Gardens at Peradeniya and a few others. In India, the Indian Botanic Garden at Calcutta (Howrah) could be said to belong to this category. *Vice versa*, some institutes known as 'Botanical Institutes' have with them excellent Botanic Gardens. The Komarov Botanical Institute at Leningrad is an excellent example of this. In India, the National Botanical Research Institute at Lucknow falls in this category.

With the increasing role of Botanic Gardens in conservation of plant resources in general, the germplasm of selected groups of plants in particular, more and more emphasis is being given to the establishment of Botanic Gardens in the world. The intensification of such activity in India has been under the consideration of the Central and State Governments, Universities and private institutes. Several corporate bodies including Municipal Corporations, industrial enterprises and organisations involved in urban development are also paying much attention to establishing more and more public parks and gardens.

The responsibility for preparation of a draft document on this was placed on the Botanical Survey of India.

Recently the Botanical Survey of India initiated the compilation of a draft document on a 'Directory of Botanic Gardens, Parks and Gardens in India'. Accordingly a 'Questionnaire' was designed and circulated to a large number of Government, non Government Organisations (NGO's) and institutions, parks, gardens and universities for their kind compliance in order to obtain information of as many Botanic and Experimental Gardens, parks and gardens in the country as possible. Based on information thus obtained, an initial cyclostyled document was prepared and was placed in the meeting of the International Union for Conservation of Nature and Natural Resources (IUCN) in New Delhi in August, 1983 and its contents were highly acclaimed in the *Threatened Plants Newsletter* (Number 12, November, 1983).

Subsequently it was decided to revise and enlarge this document after incorporating fresh additional information obtained through correspondence and also by undertaking tour of some reputed gardens in India.

'The International Directory of Botanical Gardens' prepared by Henderson and Preibice (1977) appears to be the latest work on Botanic Gardens of the world. This has a mention of only 13 gardens from India.

The present document is the result of response received from different institutions in India. This response, combined with the data available in our own records, gives the belief that there are good number of organised Botanic Gardens or large parks in some way comparable to Botanic Gardens in India. These also include small and large Botanic Gardens attached with the University Botany Departments. It is certain that there are many more Botanic Gardens attached to Universities or other institutions, who have either not responded to our 'Questionnaire' or are not in our knowledge. Readers of this Directory could inform about any Botanic Gardens, parks and gardens which in their opinion are large or otherwise significant enough to be included in this Directory in future. Suggestions are invited also on objectives of Botanic Gardens. The intention is to have a large or small Botanic or Experimental Garden in all parts of India to represent the several vegetation types of the biographical regions of the country. We shall consider our efforts adequately rewarded if the reader is benefited in any way.

The authors wish to acknowledge the encouragement received from Dr. T. N. Khoshoo, formerly Secretary, Department of Environment, Government of India during the course of writing up this document. In fact it is due to his desire that the initial manuscript prepared earlier

by the authors for distribution by Botanical Survey of India in IUCN meeting in New Delhi, could be substantially elaborated with more facts and figures. Dr. S. K. Jain, formerly Director, Botanical Survey of India was the chief source of inspiration for undertaking and completion of the job. The authors are grateful to him for his constant advice and guidance even in the midst of his extremely busy hours as Director of this Survey.

We are in many ways indebted to Dr. M. P. Nayar, Director, Botanical Survey of India without whose effort and inspiration the publication would have been delayed further. He was kind enough to go through the manuscript suggesting necessary additions and alterations and to write the foreword for this book. The authors acknowledge his help with deep sense of gratitude.

We are also anxious to express our sincere gratitude to Prof. A. K. Sharma, Golden Jubilee Professor (INSA) and Programme Coordinator, Centre of Advanced Study (Cell and Chromosome Research), Department of Botany, University of Calcutta for his valuable suggestions, to Professor (Mrs.) Archana Sharma, Professor of Botany, University of Calcutta for her keen interest.

A number of Government Botanic Gardens, parks and Universities of India have furnished details in the 'Questionnaires' sent by the authors which facilitated compilation of the manuscript. Their kindness and generous help are gratefully acknowledged.

For writing this document we had to visit and study many of the parks and gardens as included in this Directory and the assistance received from the authorities are remembered with gratitude.

We also extend our thanks to Publication Unit, Botanical Survey of India for the help in publishing this Directory, to Sri S. C. Pal, Publication Officer in particular. Thanks are also due to Sri Swapan Kumar Das, Stenographer, Indian Botanic Garden for typing the manuscript. Finally we are thankful to many of our colleagues in the Botanical Survey of India who assisted us during compilation of this document.

## **BOTANIC GARDENS—OBJECTIVES & FUNCTIONS**

A Botanic Garden can broadly be called a living repository or refugia of plants, arranged and maintained on some scientific basis and where the collections are usually labelled or marked for identification.

Early Botanic Gardens established in sixteenth century were probably built up with the object of growing plants of the neighbourhood and those procured through collection or exchange from distant lands. The aim was to bring together as many plants as possible and the ranking or status of the garden depended largely on the number of novelties it contained. This may be regarded as the initiation of Botanic Gardens with certain specific objectives and functions.

The next stage in the evolution of Botanic Gardens was the study of systematic botany or taxonomy. Plants in Botanic Gardens were arranged on the basis of their diagnostic characters and plants of a particular group were grown together. Gradually, these centres became places of study of the diversities and curiosities of plant kingdom. The Botanic Gardens thus became the centres of natural aesthetic beauty and of taxonomic studies and education.

The next advancement in the development of Botanic Gardens seems to have been in three major directions :

- (i) Comparative study of plants in garden and the herbarium for modern taxonomy and experimental botany.
- (ii) As centres of study of economic plants. The economically promising plants native to one part of the world were introduced to other Botanic Gardens, which served as acclimatization centres, before release for cultivation.
- (iii) As centres of horticultural research which included trials, selection, hybridization and release into horticultural trade of thousands of new and improved varieties of both useful and ornamental garden plants. The Botanic Gardens also stimulated higher standards of display and decoration.

The Botanic Gardens continued to perform these functions till the recent perspectives of environmental pollution, ecological imbalance and conservation of threatened plants influenced their objectives. Botanic



**Gardens are now taken as main centres for conservation of plant resources from their extinction.**

**Presently the following are the aims, objectives and functions recommended for the Botanic Gardens :**

- (i) To serve as a living repository for plants of the country and also of selected exotic species.
- (ii) To serve as a 'safe abode' for the rare and endemic species.
- (iii) To house the germplasm collections of selected economic, ornamental and medicinal plants and their wild progenitors.
- (iv) To promote educational programmes and research in experimental botany and ornamental horticulture.
- (v) To undertake research on propagation of rare and threatened species and species for afforestation, energy and alternative or substitute food and fodder plants. Species of different climatic conditions are to be grown in conservatories, phytotrons, hot and green houses.
- (vi) To generate awareness about value of trees and about curious, beautiful and interesting plants with delightful landscaping and display.
- (vii) To organise flower, foliage and plant shows, exchange of viable seed materials, seedlings, saplings and other propagules.
- (viii) To introduce economic and commercially exploitable species ; to acclimatize and study the physiology of the species for release for field trials or cultivation.
- (ix) To act as data bank for information and documentation on holdings in Botanic Gardens of the country or region.

## REQUIREMENTS OF BOTANIC GARDENS

- (i) The area of a good Botanic Garden should be between 100 and 175 hectares, but the larger are better in all respects.
- (ii) The soil condition of the area should be carefully examined so that the introduced plants are not subjected to any deficiency conditions (e.g. mineral, both micro and macro elements, water-stress, sub-soil water level etc.).
- (iii) At least 10 per cent of the area should constitute water surface, so that aquatic species could be grown and humidity inside the garden is maintained more or less at the desired level. This may also sometimes serve as temporary source of water for irrigation purposes.
- (iv) There should preferably be perennial source of water for nurturing the plants.
- (v) The Botanic Garden can be planned in such manner as to provide for developing the following aspect or areas :
  - (a) *Taxonomy Garden* : The representative species of classification should be grown familywise according to some conventional system of plant classification. There should be sufficient provision for space to represent each and every family of the flowering plants : *ca* 0.25—0.40 ha for each family.
  - (b) *Medicinal Plants Garden* : Important medicinal and aromatic plant wealth of the country should be put together in a demarcated area.
  - (c) *Germplasm Collection* : Each and every Botanic Garden should have germplasm collections of particular genera or species suited to that climate.
  - (d) *Arboretum* : Adequate space should be kept for this purpose.
- (vi) There should be architecturally attractive glass houses, conservatories, phytotrons and plant houses to grow the rare and endangered species

and the species of ornamental and horticultural importance including house plants, cacti and succulents, orchids etc.

- (vii) The Botanic Garden should be developed into recreational and aesthetic spots with delightful monuments, plant houses, fountains, ornamental gardens etc. and with some public amenities.
- (viii) The Botanic Garden should not be very far from the town and should have easy means of transport and conveyance for visitors.
- (ix) The Botanic Garden should have well equipped laboratory with provision for further expansion to undertake horticultural researches and a herbarium representing the local flora and garden specimens.
- (x) The residential accommodation of the Garden Management Staff and Officers should be adjacent to the garden but should always be outside the campus of the garden.



The 'Great Banyan Tree' (*Ficus bengalensis* L.) at the Indian Botanic Garden.



The 'Giant Water Lily' [*Victoria amazonica* (Peepp.) Sow.] at the Indian Botanic Garden, the leaves of which support a weight of over 42 kg.



An interior view of the glass conservatory with cacti and succulents at the National Botanical Research Institute, Lucknow.



A view of the fernery at the National Botanical Research Institute, Lucknow.

## **A. GOVERNMENT GARDENS**

## INDIAN BOTANIC GARDEN (CALCUTTA), HOWRAH

For nearly two centuries this garden, perhaps the largest and oldest of its kind in South East Asia, has been a pioneering organisation for botanical and horticultural research. The great aesthetic beauty of this garden with its picturesque vistas, some delightful lakes with marvellous lotus and water lilies and vast greeneries serve as a source of inspiration, education, research and recreation to millions of visitors to this garden throughout the year from India and abroad.

Established in 1787 by Lieutenant Colonel Robert Kyd, this garden is situated on the west bank of the river Hooghly at a distance of about 8 km from Howrah railway station and 25 km from Calcutta (Dum Dum) International air port. The two main entrances of the garden—the Howrah gate and the Banyan gate are well connected with Howrah and Calcutta by regular bus and mini bus services. Visitors may also avail of water transport at Nazirgunge Ghat just outside the garden to reach Metiabruz (Calcutta) in about 5 minutes and move to various places at Calcutta through regular transport. Recently another launch service has been started from B. E. College area to Fairlie Place (Calcutta) between 8:30 and 18:00 hrs. The garden covers an area of 112 ha including about 12.50 ha water surface and 1.50 km river front. Informally designed it is open to the public from sunrise to sunset. Its unique landscape design initiated by Sir George King in 1872 is considered to be one of the best in the Botanic Gardens of the world with undulated land surfaces, artificial lakes and moats interconnected with underground pipes receiving water from the river Hooghly.

The garden known earlier at different times as East India Company's Garden, 'Company Bagan', Calcutta Garden or Royal Botanic Garden came under the management of the Botanical Survey of India (BSI) on and from January 1, 1963.

Over 15,000 trees and shrubs distributed under 2,350 species together with several thousand herbaceous plants are in cultivation in the open in 25 Divisions, five glass houses and five green houses and conservatories. One octagonal glass house for growing cacti and succulents and one massive green house are under the process of construction and planning respectively. The garden maintains germplasm collections of Bamboos (26 species), Bougainvilleas (148 cultivars in 3 species), Citrus, Jasmines (25 species), Palms (109 species), Pandanus, Water Lilies (30 cultivars in 4 species). Besides succulents (100 species), *Hibiscus*, aromatic plants, *Ficus*, ferns, creepers, gymnosperms (in two Pinetums) and a number of

floricultural and arboricultural plants in the Flower Garden, Students Garden, in the two Nurseries, the glass houses and conservatories and in the open enrich the garden. A few interesting plants are Branched Palms [*Hyphaene thebaica* (L.) Mart., *H. bussei* Damm. ex Busse, *H. indica* Becc.], Bread Fruit Tree (*Artocarpus communis* Forst.), Double Coconut [*Lodoicea maldivica* (Gmel.) Pers.], Giant Water Lilies [*Victoria amazonica* (Poepp.) Sow., *V. cruziana* Orbign.], Krishnabot (*Ficus bengalensis* L. var. *krishnae*), Mad Tree [*Pterygota alata* (Roxb.) R. Br. var. *irregularis*], Shivalinga Tree (*Couroupita guianensis* Aubl.), Sandalwood Tree (*Santalum album* L.) etc. Besides maintenance, emphasis is being given on (1) selective introduction of plants, their successful acclimatization and assessment, (2) ornamentation of some corners of the garden to make them more attractive and delightful to visitors and (3) dissemination of the knowledge acquired through research and culture for the benefit of common people.

The Orchidarium of the garden was renamed as the National Orchidarium in 1972 which contains about 1500 sets of orchids in 32 genera and 80 species. This collection excludes many epiphytes growing on trees at various corners of the garden. Species of the genera *Aerides*, *Cattleya*, *Cymbidium*, *Dendrobium*, *Epidendrum*, *Eulophia*, *Oncidium*, *Phaius*, *Pholidota*, *Rhyncostylis*, *Saccolabium*, *Sarcanthus*, *Vanda* and *Vanilla* are enriching the collection.

The Medicinal Plants Garden named as 'Charaka Udyan' established recently has a collection of 1000 plants in 450 species are on a steadily increasing trend. Medicinal and aromatic plants are kept in the same enclosure to represent the Indian heritage from ancient Indian culture of use and utilisation of these natural resources in human ailments.

Researches are being carried out on plant introduction, propagation, (multiplication), horticultural aspects and conservation.

Special facilities for visitors are available in the form of guided popular botanical trips by departmental omni bus inside the garden on sundays and holidays, distribution of thousands of plant materials during 'Vanamahotsava' every year, extension services through 'open week', exhibitions, flower shows and film shows. Rest house facility is available for overnight stay of researchers. For visitors some picnic spots and pavilions can be hired from sunrise to sunset. Visitors often like a jolly ride on boats in the big lakes like King's Lake or Prain's Lake. The Outdoor Dispensary of the garden provides necessary medical aid to the visitors and employees.



Some interesting structures within the garden are the Roxburgh Building, and monuments in memory of Roxburgh, Kyd, Wallich, Kurz, Griffith and Jack. The garden has exchange facilities with all leading Government gardens and Universities in India and abroad. Some of the publications are *Annals of Royal Botanic Garden, Calcutta, Annual Report, Index Seminum* and *Guide Books* and a colourful book on *Beautiful trees and shrubs of Calcutta*.

The Library inside the campus has a valuable collection of nearly one lakh books, journals, periodicals, some old manuscripts on botany, forestry, agriculture, entomology, geology etc. and some icones containing original paintings of Indian plants. The garden Herbarium (IBG) has about 9365 specimens and the collection of Central National Herbarium (CAL) located in the garden exceeds 1.5 million herbarium specimens.

The Great Banyan Tree (*Ficus bengalensis* L.) of this garden attracts millions of visitors every year. It looks more like a miniature forest than a single tree and is over 230 years old with 1825 prop roots spread in an area of 1.2 ha. The Large Palm House with several interesting palms including *Lodoicea maldivica* (Gmel.) Pers. is unique of its kind in India.

Best time to visit is during October to March.

**LOCATION :** Sibpur, Dist. : Howrah, West Bengal.

**POSTAL ADDRESS :** P.O. Botanic Garden, Howrah 711 103. *Telephone :* 67-3231 (5 lines), 67-3364, 67-5357, *Telex :* 021 : 2560, *Cable :* BOTGARDEN, Howrah.

**SOIL :** Gangetic alluvial.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 22°35' N, *Long.:* 88°21' E, *Alt. :* 4.6 m, *Temp. :* 21° to 32°C (Min. in Dec., Max. in Apr.-May), *Rain-fall :* 1536 mm (Min. in Nov.-Jan., Max. in Jul.-Aug.).

**STATUS :** Government of India, Ministry of Environment and Forests, Directorate of Botanical Survey of India. *Annual budget :* Rs. 128 lakhs.

**MANAGEMENT :** *Director, BSI, Joint Director :* 1, *Scientific & Technical :* 45, *Others :* 458.

## **EXPERIMENTAL GARDENS, BOTANICAL SURVEY OF INDIA**

In order to introduce and propagate rare, endangered, endemic and curious plants and wild flora of the regions and to build up germplasm collections of the wild relatives of economic plants for utilisation in plant improvement programme, Experimental Botanic Gardens have already been set up by the Botanical Survey of India in its Eastern, Western, Northern, Southern and Central Regional Circles, in Andaman & Nicobar Circle and Arunachal Field Station covering different agroclimatic zones of the country. It is also planned to have Experimental Gardens in Sikkim Himalayan Circle at Gangtok and Arid Zone Circle at Jodhpur.

The Botanical Survey of India has started enlisting the rare, endangered and threatened species of plants in the *Red data book of Indian plants* and also the listing of live collections of the gardens under this organisation and other gardens in India. The Indian Botanic Garden and the network of Experimental Gardens are treated as the main conservation centres of these species, besides the programme in the same direction taken by other gardens in India. Nayar (1987) in *Network of Botanic Gardens* rightly pointed out 'In the World conservation strategy, Botanic Gardens can play a role of fire-brigade action for conservation of the endangered species. As ex situ centres of conservation, modern tools are available for the preservation of seeds and propagules in seed banks. A network of botanic gardens cultivating rare, vulnerable and endangered plants, and exchanging information and plant material would go long way in preserving the floristic and genetic germplasm which we have inherited as products of millions of years of evolution'

**NATIONAL ORCHIDARIUM AND BOTANIC GARDEN,  
'WOODLANDS', BOTANICAL SURVEY OF INDIA,  
EASTERN CIRCLE, SHILLONG**

Established in 1959, it resembles the forests of the Khasi hills and contains native plants alongwith other exotic species. A collection of about 1900 plants including ferns, conifers, palm like gymnosperms and other medicinal, economic and ornamental plants distributed under 210 species enrich the garden wealth. The small orchid house in the centre has a collection of about 200 species among which there are many beautiful orchids, including some endangered and rare taxa. Some interesting living collections are *Cupressus funebris* Endl., *Cyathea* sp., *Cycas pectinata* Griff., *Evodia roxburghiana* Benth., *Helicia nilagirica* Bedd., *Illicium griffithii* Hk. f. & T., *Magnolia insignis* Blume, *Taxus baccata* L., etc. Best time to visit is during October to May. Nearest railhead and air port located at Guwahati is 103 km from Shillong. Vayodoot services also ply regularly between Calcutta and Shillong.

**LOCATION :** Shillong, Meghalaya.

**POSTAL ADDRESS :** Botanical Survey of India, Eastern Circle, 'Woodlands', Shillong 793 001. *Telephone :* 24119, 23618, *Telex :* 037-211, *Cable :* BOTSURVEY, Shillong.

**SOIL :** Rocky laterite.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 25°34' N, *Long. :* 91°56' E, *Alt. :* 1503 m, *Temp. :* 2° to 23°C (Min. in Oct.-Feb., Max. in Jun.-Sept.), *Rainfall :* 2150 mm (Min. in Dec.-Jan., Max. in Jul.-Aug.).

**STATUS :** Government of India, Ministry of Environment and Forests, Directorate of Botanical Survey of India. *Annual budget :* Rs. 1.5 lakhs.

**MANAGEMENT :** *Director, BSI, Deputy Director :* 1, *Garden Curator :* 1, *Scientific & Technical :* 50, *Others :* 38.

## BARAPANI EXPERIMENTAL GARDEN, BOTANICAL SURVEY OF INDIA, EASTERN CIRCLE, SHILLONG

Established in 1966 the garden is in the midst of natural surroundings of East Khasi Hills popularly known as the 'Scotland of the East' with a beautiful hill setting, vast lakes, charming scenery and pleasant climate.

The 10.4 ha campus is located on a busy road near Umroi Air Field on Shillong—Guwahati road and about 19 km away from Shillong, nearest railhead being Guwahati (84 km). The garden is open from 10 : 00 to 16 : 30 hrs and the best season to visit is October to December.

It aims at collecting rare and endangered species of north eastern India for cultivation and preservation. Though still at a developing stage it maintains a good collection of orchids in the mini-orchidarium and the endemic and rare insectivorous plant, *Nepenthes khasiana* Hk. f. besides a large number of medicinal and arboricultural species.

**LOCATION :** Barapani, Dist.: East Khasi Hills, Meghalaya.

**POSTAL ADDRESS :** Barapani Experimental Garden, Botanical Survey of India, Barapani, Shillong. *Telephone :* 26126, *Telex :* 037-211 TBSI, *Cable :* BOTSURVEY, Shillong.

**SOIL :** Red laterite.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 25°34'N, *Long. :* 91°56' E, *Alt. :* 1000 m, *Temp. :* 2° to 24°C (Min. in Oct.-Feb., Max. in Jun.-Sept.), *Rainfall :* 2150 mm (Min. in Nov.-Jan., Max. in Jun.-Sept.).

**STATUS :** Government of India, Ministry of Environment and Forests, Directorate of Botanical Survey of India. *Annual budget :* Rs. 1.1 lakhs.

**MANAGEMENT :** *Director,* BSI, *Deputy Director :* 1, *Garden Curator :* 1, *Scientific & Technical :* 3, *Others :* 14.

## EXPERIMENTAL GARDEN, BOTANICAL SURVEY OF INDIA, WESTERN CIRCLE, PUNE

The gardens have an area of 18.3 ha at Survey No. 88 Mundhwa, Pune and 2.1 ha at Koregaon Road, Pune. Established in 1960 it is formally laid out and remains open from 10 : 00 to 17 : 00 hrs. Best season being November to January. Pune railway station is the nearest alighting point which is only a few km away from the campus. There is also a nearby air port.

Collections include 3000 trees and shrubs under 400 species and 40 varieties of economic, medicinal and plants of taxonomic interests and rare and threatened plants viz. *Ceropegia attenuata* Hk.f., *C. vincaefolia* Hk.f., *Frerea indica* Dalz., *Iphigenia stellata* Blatt., *Phaius tankervilleae* (L'Herit) Bl., *Psilotum nudum* (L.) Beauv., *Rauvolfia serpentina* Benth. ex Kurz, *Santalum album* L. and *Vanilla wightiana* Lindl. ex Hk.f. The garden Herbarium has 500 specimens and the Library has a collection of 7000 books, 75 research journals and 1100 reprints.

LOCATION : Pune, Maharashtra.

POSTAL ADDRESS : Botanical Survey of India, Western Circle, 7 Koregaon Road, Pune 411 001. Telephone : 22125, 28679, 70736, Telex : 145 506 BOTS IN, Cable : BOTSURVEY, Pune.

SOIL : Black cotton.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 18°30' N, Long. : 73°55' E, Alt. : 650 m, Temp. : 18.2° to 32.0°C (Min. in Jan., Max. in May), Rainfall : 714.7 mm (Min. in Dec., Max. in Sept.).

STATUS : Government of India, Ministry of Environment and Forests, Directorate of Botanical Survey of India. Annual budget : Rs. 2.0 lakhs.

MANAGEMENT : Director, BSI, Deputy Director : 1, Garden Curator : 1, Scientific & Technical : 4, Others : 18.

## EXPERIMENTAL GARDEN, BOTANICAL SURVEY OF INDIA, NORTHERN CIRCLE, DEHRA DUN

In order to maintain wild germplasm collections of the Himalayan species including medicinal plants and to conserve rare, threatened and endangered plants, these gardens were established in two sites, 10.4 ha at Nagdev at Pauri, 180 km from Dehra Dun and 10 ha at Khirsu, 22 km away from Pauri which is connected by road from the nearest railway station of Kotdwara.

The experimental garden at Pauri is situated on a steep north facing hilly slope in the Nagdev block. It maintains a thick plantation of conifers mainly consisting of *Cupressus torulosa* D. Don, *Cedrus deodara* Loud. and *Pinus wallichiana* A.B. Jackson which have excellent natural regeneration. In the upper ridges about 1.0 ha is covered by natural forest of *Myrica esculenta* Buch.-Ham. ex D. Don, *Quercus leucotrichophora* A. Camus, *Rhododendron arboreum* Sm. with rich undergrowths of ferns and terrestrial orchids. A number of interesting species viz., *Abies pindrow* Spach., *Aesculus indica* Hiern, *Bergenia* sp., *Castanea sativa* Mill., *Cymbidium macrorhizon* Lindl., *Dactylorhiza* sp., *Dendrobium bicameratum* Lindl., *Dioscorea deltoidea* Wall., *Eria alba* Lindl., *Ginkgo biloba* L., *Taxus baccata* L. have been introduced which are growing successfully. The gardens have at present, a collection of 1500 trees and shrubs under 100 species. Interesting specimens of *Morus*, *Pinus*, *Populus*, *Prunus* and *Sapindus* have been collected from Almora and Jammu & Kashmir. The Herbarium contains 500 specimens. The garden at Khirsu preserves the natural vegetation of *Quercus leucotrichophora* A. Camus and *Rhododendron arboreum* Sm. and the area is being kept as nature reserve.

LOCATION : Dist.: Pauri, Garhwal, Uttar Pradesh.

POSTAL ADDRESS : Experimental Garden, Botanical Survey of India, (i) P.O. : Pauri, Garhwal 246 001, (ii) P.O. : Khirsu, Garhwal 246 001. Telephone : Pauri 35 (Dehra Dun 23433, 23591), Telex : TBSD-0595 221, Cable : BOTSURVEY, Dehra Dun.

SOIL : Sandy loam and clay loam.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 30°19' N, Long. : 78°04' E, Alt. : 1800 m, Temp. : 0° to 31.5°C (Min. in Jan., Max. in Jun.), Rainfall: 1200 mm (Min. in Oct., Max. in Aug.).

STATUS : Government of India, Ministry of Environment and Forests, Directorate of Botanical Survey of India. Annual budget : Rs. 1.7 lakhs.

MANAGEMENT : Director, BSI, Deputy Director : 1, Garden Curator : 1, Scientific & Technical : 3, Others : 11.

**NATIONAL ORCHIDARIUM AND EXPERIMENTAL  
GARDEN, BOTANICAL SURVEY OF INDIA,  
SOUTHERN CIRCLE, YERCAUD**

In Yercaud of Shevaroy hills, Botanical Survey of India established a National Orchidarium in 1963 and an experimental garden in 1964, both in the same compound.

With an area of 18.4 ha in a patch of semi evergreen subtropical hill forest 32 km away from Salem Junction railway station of Tamil Nadu, the garden is visited annually by about 5000 visitors especially during May-December from 9 : 00 to 16 : 00 hrs.

In the campus there are 14200 sets in 210 species of orchids, 3000 trees, 1000 shrubs, 79 species of cacti and succulents and 400 sets in 43 species of ferns. Researches are being carried out on conservation and improved cultivation techniques of endangered plants and orchids. Studies on extraction of fibres from wild species have been carried out. Inside the campus there are three green houses and one orchid house. In service training is provided by garden authorities to forest, garden personnel and students from time to time. The garden participates in flower shows at Yercaud and Salem and conducts exhibitions.

The Herbarium has 6000 specimens and the Library has a collection of 100 books, 45 research journals and 50 reprints. *Index Seminum* is under preparation.

**LOCATION :** Yercaud, Sanyasimalai, R.F. Dist.: Salem, Tamil Nadu.

**POSTAL ADDRESS :** National Orchidarium and Experimental Garden,  
Botanical Survey of India, Yercaud 636 601. *Telephone* : 293, *Telex* :  
855 241, *Cable* : BOTSURVEY, Coimbatore.

**SOIL :** Red sandy loam with humus.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 11°52' N, *Long.* : 78°22' E,  
*Alt.* : 1511 m, *Temp.* : 11° to 28°C (Min. in Dec.-Jan., Max. in Apr.-  
May), *Rainfall* : 1600 mm (Min. in Dec., Max. in Sept.).

**STATUS :** Government of India, Ministry of Environment and Forests,  
Directorate of Botanical Survey of India. *Annual budget* : Rs. 1 lakh.

**MANAGEMENT :** *Director*, BSI, *Deputy Director* : 1, *Orchidologist* : 1, *Scientific & Technical* : 3, *Others* : 20.

## EXPERIMENTAL GARDEN, BOTANICAL SURVEY OF INDIA, CENTRAL CIRCLE, ALLAHABAD

The garden is located in the same compound of the Central Regional Circle of Botanical Survey of India adjacent to the nearest railway station, Prayag, a holy place of the Hindus and 5 km from Allahabad rail link. Occupying an area of about 3 ha with 100 sq m of water area, this formal garden established in 1960 is open to the public interested in plants and nature study from 10:00 to 17:00 hrs.

With a collection of about 3000 plants of medicinal, economic, flowering and ornamental importance under 400 species, the garden has been extending its collection of roses, crotons, *Dioscorea* etc. to enrich the plant wealth. There is one green house for keeping foliage plants. Garden Herbarium has about 700 specimens and the general Herbarium (BSA) contains about 50,000 specimens. The Library is attached to the main office. It has over 2900 books and 1400 bound volumes of journals. Annually 94 current journals are being subscribed of.

LOCATION : Allahabad, Uttar Pradesh.

POSTAL ADDRESS : Botanical Survey of India, Central Circle, 10 Chatham Lines, Allahabad 211 002. Telephone : 52087, Telex : 540 : 263 : BSIA IN, Cable : BOTSURVEY, Allahabad.

SOIL: Gangetic alluvial.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 25°28' N, Long. : 81°54' E, Alt. : 92 m, Temp. : 4° to 47°C (Min. in Dec.-Jan., Max. in May-Jun.), Rainfall : 850 mm (Min. in Apr.-May, Max. in Aug.-Sept.).

STATUS : Government of India, Ministry of Environment and Forests, Directorate of Botanical Survey of India. Annual budget : Rs. 2.00 lakhs.

MANAGEMENT : Director, BSI, Deputy Director : 1, Garden Curator : 1, Scientific & Technical : 2, Others : 13.



## **EXPERIMENTAL GARDEN, BOTANICAL SURVEY OF INDIA, ANDAMAN AND NICOBAR CIRCLE, PORT BLAIR**

This experimental garden was established in 1980 and is still in the early stage of development on a land area covering 30 ha located at Nayashahr on the down stream of 'Dhanikhari Dam. It is contiguous with road and forest land belonging to Forest Department. Nearest air port is Port Blair.

The garden is open to public from 6:00 to 14:00 hrs, visited annually by about 2500 visitors, best season being February to June. About 80 species and 80 varieties of plants of forest types can be found in the area. The chief objective of the institute is, however, to introduce economically viable wild plants.

**LOCATION :** Nayashahr, Dist. : Andaman, Andaman & Nicobar State.

**POSTAL ADDRESS :** Experimental Garden, Botanical Survey of India,  
Andaman & Nicobar Circle, Hadoo, Port Blair 744 102.  
*Telephone : 21224, Cable : BOTSURVEY, Port Blair.*

**SOIL :** Clayey (poor).

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 14° N, Long. : 90° E, Alt. : 40 m (msl), Temp. : 19° to 33° C (Min. in Jul., Max. in Apr.), Rainfall : 2800 to 3500 mm (Min. in Feb., Max. in Jul.).*

**STATUS :** Government of India, Ministry of Environment and Forests,  
Directorate of Botanical Survey of India. *Annual budget : Rs. 5.50 lakhs.*

**MANAGEMENT :** *Director, BSI, Deputy Director : 1, Garden Curator : 1, Scientific & Technical : 18, Others : 8.*

## EXPERIMENTAL GARDEN, BOTANICAL SURVEY OF INDIA, ARUNACHAL FIELD STATION, ITANAGAR

Arunachal Pradesh has the privilege to be considered as 'Botanist's Paradise' because of its rich heritage of forest wealth including epiphytes, ferns, bryophytes and lichens. Luxuriant bloom of orchids and rhododendrons almost throughout the state has added additional charm and beauty. Itanagar, the site of the garden is the capital of Arunachal Pradesh.

Recently 124 ha of land were obtained for the Botanical Survey of India, Arunachal Field Station, Itanagar from Government of Arunachal Pradesh for the development of experimental botanic garden at Sankie View by the side of river Sankie in the midst of natural surroundings of tropical evergreen and tropical mixed evergreen forests in a topography of slopy with highlands and depressions, having good drainage facilities. Harmuti on North East Frontier Railway is the nearest railway station, 38 km from the site and the nearest air port Lilabari is located at a distance of 72 km.

Among the naturally occurring and introduced plants maintained in the garden, mention may be made of *Angiopteris crecta* Hoffm., *Arundina* sp., *Abroma augusta* L., *Amoora* sp., *Altingia excelsa* Noronha, *Azadirachta indica* A. Juss., *Bombax ceiba* L., *Bauhinia* sp., *Boehmeria glomerulifera* Miq., *Bucklandia* sp., *Callistemon* sp., *Cassia* sp., *Cyathea* sp., *Coptis teeta* Wall., *Duabanga grandiflora* (Roxb.) Walp., *Dendrocalamus hamiltonii* Nees & Arn., *Dalbergia assamica* Benth., *Elaeocarpus* sp., *Erythrina* sp., *Jacaranda* sp., *Kydia glabrescens* Mast., *Livistona jenkinsiana* Griff., *Mesua ferrea* L., *Nepenthes khasiana* Hk.f., *Platynerium alcorni* Desv., *Paphiopedilum* sp., *Rhododendron* sp. and many species of Melastomataceae, Orchidaceae and Zingiberaceae. The Field Station at Itanagar maintains a regional Herbarium under the acronym of "ARUN" with about 6000 specimens.

**LOCATION :** Sankie View, Itanagar, Arunachal Pradesh.

**POSTAL ADDRESS :** Experimental Garden, Sankie View, Botanical Survey of India, Itanagar 791 111, Arunachal Pradesh. *Telephone :* 2405, *Cable :* BOTSURVEY, Itanagar.

**SOIL :** Sandy mixed with boulders, rich in humus at places.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 27°08' N, *Long. :* 93°40'E, *Alt. :* 250-300 m, *Temp. :* 11.1° to 33.7°C (Min. in Jan., Max. in Jun.), *Rainfall :* 200-400 cm (Min. in Jan.-Feb., Max. in May-Jun.).

**STATUS :** Government of India, Ministry of Environment and Forests, Directorate of Botanical Survey of India. *Annual budget :* Rs. 5.0 lakhs.

**MANAGEMENT :** *Director, BSI, Scientist 'B' :* 1, *Scientific & Technical :* 12, *Others :* 12.

## GOVERNMENT GARDEN (MOTILAL NEHRU PARK), ALLAHABAD

Established in 1857, this informal garden near Allahabad Junction (Northern Railway) railway station, covers an area of 78.3 ha with 0.4 ha water surface. The objective is to produce quality fruit, ornamental and green house plants to sell them to garden lovers and to develop aesthetic sense. The garden is open from 7:00 to 12:00 hrs and 15:00 to 18:00 hrs in summer and 8:00 to 12:00 hrs and 13:00 to 17:00 hrs in winter with no entry fee. It is annually visited by about 30,000 to 35,000 visitors and the best season to visit is from November to March.

The garden is enriched with a collection of about 50,000 plants including trees, shrubs, palms and green house plants. There are four green houses. The main divisions of the garden are : (1) Motilal Nehru Park (Ornamental unit), (2) Progeny Orchard (Collection of mother plants of pomological interest and their further multiplication and sale), (3) Central Nursery (Production of fruit plants). The Bee-Keeping and Gardener's Courses are conducted here. Flower show is organised every year during February—March. The Public State Library built in 1869, Museum, Sports Stadium, Hindusthani Academy, Prayag Sangeet Samiti and Ganga Nath Jha Kendriya Sanskrit Vidyapeetham are the buildings situated in the garden premises. The Library has about 1700 books and journals.

LOCATION : Allahabad, Uttar Pradesh.

POSTAL ADDRESS : Government Garden (Motilal Nehru Park), Allahabad  
211 002, Uttar Pradesh. Telephone : 52794.

SOIL : Gangetic alluvial.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 25°28' N, Long. : 81°54' E,  
Alt. : 92 mm above msl, Temp. : 4° to 47°C (Min. in Dec., Max. in  
Jun.), Rainfall : 850 mm (Min. in Apr. to May, Max. in Aug. to Sept.).

STATUS : Government of Uttar Pradesh. Annual budget : Rs. 18,45,000.00.

MANAGEMENT : Superintendent, Scientific & Technical : 15, Others : 143.

## **RAM BAGH, AMRITSAR**

Established in 1919 this garden has an area of 44 ha including 0.5 ha water surface. Amritsar in the state of Punjab is the nearest railway station (1.5 km). The garden, a combination of formal and informal designs, is open to visitors from 8 : 00 to 18 : 00 hrs free of charges. Maximum floral display is noted from December to March and April corresponding to the best seasons for visitors. Annually 6.0 to 6.5 lakh people visit the campus.

The objective of the garden is exclusively for providing recreation to public. It has to its credit a collection of about 6000 plants distributed in 290 species and 560 varieties. A few selected areas are allotted to Rose, Bougainvillea, Chrysanthemum, Gladiolus and other annuals. Children's Park and Club Houses have also been developed inside. Interesting buildings and monuments inside the garden include : Maharaja Ranjit Singh Museum, Municipal Aquarium, Mini-Zoo, Statues of Maharaja Ranjit Singh and Mahatma Gandhi. A 12 ha Municipal Rose Garden is under its control. The authorities organise Chrysanthemum, Rose and Baby shows in December, Annual Flower show in February and March and impart advisory services on landscape gardening.

**LOCATION :** Amritsar, Punjab.

**POSTAL ADDRESS :** Landscape Officer, Municipal Corporation, Amritsar  
143 001. *Telephone :* 45536, 45537.

**SOIL :** Clay saline.

**GEOGRAPHIC AND CLIMATIC DATA:** *Lat. :* 31°8'N, *Long. :* 74°28 E',  
*Alt. :* 232 m, *Temp. :* 0° to 50°C (Min. in Jan., Max. in May-Jun.),  
*Rainfall :* 700 mm (Min. in Jan., max. in Jul.-Sept.).

**STATUS :** Punjab Government. Controlled by Municipal Corporation.  
*Annual budget :* 18 lakhs.

**MANAGEMENT :** *Landscape Officer, Scientific & Technical :* 2, *Others :* 212.

## LALBAGH GARDENS, BANGALORE

The Lalbagh garden is the nucleus of all horticultural activities in Karnataka, being the seat of the Directorate of Horticulture of the State. The garden has become the guiding centre for the research, extension and developmental activities of horticulture for the whole of Karnataka State. The 'Lalbagh' or Red Garden was probably named by Hyder Ali in 1760 when he took over the throne of Mysore territory in the same year.

The campus is well connected by road from Bangalore City railway station and Bangalore air port. Extending over an area of 100 ha with 11.7 ha water surface, this pioneer institution of India is visited annually by about 36 to 40 lakhs of people from India and abroad especially during June to October from 7:00 to 20:00 hrs, free of charge.

Plant wealth consists of 1854 species and 890 cultivars of ornamental flowering trees, avenue trees, shrubs, creepers, medicinal plants and annuals which include some interesting collections like *Ficus krishnae* A. DC., *Colvillea racemosa* Boj., *Bombax ceiba* L. (10.5 m girth), *Amherstia nobilis* Wall., *Brownea grandiceps* Jacq., *Guazuma tomentosa* H.B. & K., *Guaicum officinale* L., *Mangifera indica* L. (two mango trees planted by Hyder Ali are still bearing fruits), *Agathis robusta* Hook., *Araucaria cookii* R. Br. ex D. Don (two such plants exist on either side of the glass house aging about 100 years, with a height of 37 and 41 m and having diameter of 9 and 9.5 m respectively). The garden has two green houses. Two world famous horticultural shows, one covering the Republic Day and the other, the Independence Day are conducted in the gorgeous glass house of this garden. A large number of interesting buildings and monuments can be seen inside the premises which include one of the four historic watch towers, built in 1537 by Sri Kempe Gowda, founder of Bangalore on a rock which is equally important and interesting as it is recognised as a National Geological Monument, the 'Statue Garden' with the statue of His Highness Maharaja of Mysore Late Sri Chamarajendra Wadoyar, the exquisite 'Japanese Garden' with statues, falls and other features laid out during 1924 and the 'Centenary Gardens' one of the most attractive parts of the garden. The garden Herbarium contains 800 specimens and the departmental Library which is located in the garden has over 5100 books and number of periodicals. There is a training centre for horticultural training. Planting materials of Lalbagh are being exchanged with Royal Botanic Gardens, Kew, London, Royal Botanic Gardens, Australia and with other Botanic Gardens of the country. The added attraction to the Lalbagh garden is installation of

floral clock presented by the Citizen Watch Co. of Japan, through the Hindusthan Machine Tools, Bangalore. This has been installed in the Statue Garden on October 3, 1983. The clock of this type is first of its kind in India and second in Asia.

**LOCATION :** Bangalore, Karnataka.

**POSTAL ADDRESS :** Lalbagh Garden, Bangalore 560 004. *Telephone :* 607002, *Cable :* LALBAGH, Bangalore.

**SOIL :** Red sandy and gravelly loam.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 12° 57' N, *Long. :* 77° 35' E, *Alt. :* 914.4 m, *Temp. :* 14° to 37°C (Min. in Oct.-Dec., Max. in Apr.-May), *Rainfall :* 88.87 cm (Min. in Jan., Max. in Sept.).

**STATUS:** Department of Horticulture, Karnataka State Government.  
*Annual budget :* Rs. 22,35,000.00.

**MANAGEMENT :** *Director of Horticulture, Deputy Director of Horticulture (Gardens) :* 1, *Scientific & Technical :* 13, *Others :* 243.

## STATE BOTANICAL GARDEN, BARANG

This garden in the State of Orissa, India's eastern state on the Bay of Bengal is of very recent origin (established in May, 1963) and may develop as another centre of attraction in the state like Puri's famous shrine and magnificent sea beach, Konarak's splendour and Bhubaneswar's temple architecture.

The garden informally designed has an area of 72.1 ha including 0.8 ha water surface and is placed about 1 km away from railway station of Barang in between Bhubaneswar and Cuttack city. It is visited annually by about 30,000 visitors particularly in winter from November to February from 7:00 to 12:00 hrs and again from 14:00 to 17:00 hrs with very nominal entry fee for persons and vehicles.

The garden has a collection of 1,500 species, 2,500 varieties including 750 trees and shrubs, two green houses, one glass house and one conservatory to conserve the cacti and other exotic indoor plants. A palm house is being developed. Rest house facilities are available inside.

The garden Herbarium has about 500 collections and the Library has 1200 books and subscribes to 6 research journals. Publications so far made are *Index Seminum* and *News Letters*.

**LOCATION :** Barang, Dist. : Cuttack, Orissa.

**POSTAL ADDRESS :** State Botanic Garden, Barang 754 005, Orissa.  
*Telephone : 52396.*

**SOIL :** Laterite.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 20°24'15' N, Long. : 85°49'30'E,*  
*Alt. : 40 m, Temp. : 9.4° to 40.5°C (Min. in Jan., Max. in Apr.-May),*  
*Rainfall : 1453 mm (Min. in Jan., Max. in Jul.).*

**STATUS :** Government of Orissa, Directorate of Horticulture. Agriculture Cooperation Department. *Annual budget : Rs. 8.5 lakhs.*

**MANAGEMENT :** *Superintendent, Scientific & Technical : 4, Others : 68.*

## STATE HORTICULTURAL FARM, BURLIAR

The Burliar State Horticultural Farm is situated at the third hairpin bent of Mettupalayam to Coonoor Road and was established in 1871. The station is divided into three sectors viz. main area (4.25 ha), new area (1.85 ha) and temple area (0.15 ha).

The main objectives of this station are to concentrate more on spices and fruits by way of production and distribution of seedlings to the farmers at the cheaper rate, to serve as a picnic centre, to serve as a demonstration centre for students and to meet the public demand by way of producing and selling cloves, nutmegs and fruits.

The farm is open from 10:00 to 16:30 hrs and is visited annually by about 25,000 visitors. The main area is made up of 68 terraces and planted with clove, nutmeg, cinnamon, cardamom, pepper, arecanut, cocoa, vanilla and fruits like mangosteen, durian, grapefruit, roseapple, avocado etc. The new area is completely planted with numerous varieties of jack fruits. The temple area is planted with mangosteen, clove, durian and arecanut. Researches are carried out on propagation of fruits and spices. Exhibitions and shows are organised.

**LOCATION :** The Nilgiris, Tamil Nadu.

**POSTAL ADDRESS :** State Horticultural Farm, Burliar, The Nilgiris, Tamil Nadu.

**SOIL :** Fine loamy.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 11°19' N, *Long.* : 76°51' E,  
*Alt.* : 830 m, *Temp.* : 16° to 32°C (Min. in Dec.-Jan., Max. in Jun.-Jul.),  
*Rainfall* : 1200 mm (Min. in Jan.-Feb., Max. in Oct.-Nov.).

**STATUS :** State Government, Tamil Nadu, Department of Horticulture, Tamil Nadu State. *Annual budget* : Rs. 1 lakh.

**MANAGEMENT :** *Assistant Director of Horticulture*, Pomological Station, Coonoor, *Scientific & Technical* : 2, *Others* : 3 + Casual labourers.



## GOVERNMENT GARDENS, EDEN GARDENS, CALCUTTA

The Eden Gardens, Calcutta established between 1836 and 1842, popularly known as the 'Lady Bagicha' is located on the vast maidan in the heart of the city of Calcutta between the south-western side of the Raj Bhavan and the river Hooghly. It is about 3 km away from Howrah railway station and is situated in the vicinity of a number of show spots in Calcutta viz. Raj Bhavan, Assembly House, Ranji Stadium, Netaji Indoor Stadium, Akashvani Bhavan, Maidan play ground, High Court etc. The velvet green areas of the garden with some pleasant walks, shrubberies, artificial lake, etc. occupies an area of 17 ha including world's one of the finest cricket ground and Akashvani Bhavan. This area has been reduced to about 6 ha with 1.2 ha water area after having shrunk rapidly at an alarming rate under pressure of this ever growing city and still provide a moment of repose in the crowded routine of an otherwise humdrum city life and is still visited by about 10 lakh visitors annually especially during autumn to spring from 5:00 to 20:00 hrs without any entry fee. Greatest floral display is exhibited during November to February. The objective of the institute is (1) to offer its technical and scientific expertise in executing landscaping works for promoting the ornamental horticultural aspects to the public, (2) to provide scope for recreation and (3) to neutralise environmental pollution.

The informally designed garden, previously under control of the Superintendent, Indian Botanic Garden, Sibpur (Royal Botanic Garden, Calcutta) contains a good collection of trees, shrubs, climbers, aquatic ornamentals and feature like ornamental fountains, flower beds, semi-circular arch, rockery, Pergola and a number of statues inside. Total collection of trees and shrubs is 1505 in 103 species. Some important collections are *Grevillea robusta* A. Cunn., *Cycas revoluta* Thunb., *Couroupita guianensis* Aubl., *Parmentiera cereifera* Seem., *Chrysalidocarpus lutescens* Wendl., *Amherstia nobilis* Wall., *Bauhinia purpurea* L., *Zamia* sp., *Roystonea regia* (H. B. & K) O. F. Cook. etc. There are two green houses containing indigenous and exotic palms, foliage plants, ferns, orchids and other shade loving plants.

The garden distributes seedlings free of cost during Vanamahotsava. Visitors can enjoy rowing of boats, playing of police bands, deer park and children's corner. The Burmese Pagoda and the Band Stand are interesting installations in the garden. The garden Herbarium has 5127 specimens and the Library 67 books.

LOCATION : Calcutta, West Bengal.

POSTAL ADDRESS : Eden Gardens, Calcutta 700 021. *Telephone* : 23-7944.

SOIL : Gangetic alluvial.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 22°32' N, *Long.* : 88°20' E,  
*Alt.* : 6 m, *Temp.* : 15° to 33°C (Min. in Dec.-Jan., Max. in Jun.-Jul.),  
*Rainfall* : 1032 mm (Min. in Dec.-Jan., Max. in Aug.-Sept.).

STATUS : Parks and Gardens Wing, Forest Directorate, Department of Forests, Government of West Bengal. *Annual budget* : Rs. 6.6 lakhs.

MANAGEMENT : *Special Officer*, Parks & Gardens Wing, Government of West Bengal, *Scientific & Technical* : 5, *Others* : 49.

## GOVERNMENT GARDENS, CHAUBATTIA

The Government Gardens, Chaubattia about 10 km from Ranikhet, a hill station of Uttar Pradesh attracts holiday makers almost all the year round for its enchanting climate and snow claded Himalayan peaks.

The garden mainly a horticultural garden dealing with temperate fruits and flowers, covers an area of 110 ha with 4.2 ha water surface. Nearest railway station, Kathgodam (NER) is about 93 km away and Pantnagar (119 km) is the nearest air port. About 30,000 visitors come here in a year, mostly during April to August from 8 : 30 to 17 : 00 hrs.

In the enclosure there are 22,500 trees of almond, apple, apricot, cherry, heselnuts, horse chestnut, peach, pear, persimon, plum, walnut etc. Researches on temperate fruits, vegetables and ornamental plants particularly on breeding, disease resistance and improved cultural techniques are being carried out in a well furnished laboratory. The garden imparts training on mushroom cultivation and also conducts a Gardener's Training Course. Annual Fruit shows are arranged from time to time. In the garden Library there are more than 5200 books, 35 research journals, 5167 reprints. *Progressive Horticulture* and *Annual Report* of the research institute are published from this place.

**LOCATION :** Chaubattia, Dist. : Almora, Uttar Pradesh.

**POSTAL ADDRESS :** Government Gardens, Chaubattia 263 651, U.P.  
*Telephone : 21.*

**SOIL :** Red loamy (pH. 5.3 to 6.4).

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 29°45' N, Long. : 79°40' E, Alt. : 1982.5 m, Temp. : 4° to 32°C (Min. in Dec., Max. in Jun.), Rain-fall : 1375 mm (Min. in Apr.-May, Max. in Jul.-Aug.).*

**STATUS :** Government of Uttar Pradesh, Directorate of Horticulture and Fruit Utilization. *Annual budget : Rs. 15 lakhs.*

**MANAGEMENT :** *Superintendent, Scientific & Technical : 100, Others : 32.*

## NARENDRA NARAYAN PARK, COOCH BEHAR

Narendra Narayan Park, more commonly called N. N. Park established in 1892, covers an area of 5.7 ha including 1 ha water surface. Its chief objectives are recreation and botanical studies. Nearest railway stations are Cooch Behar in the metre gauge section or New Cooch Behar in the broad gauge section.

Informally designed the park reveals greatest floral display during winter and remains open to public from 7 : 00 to 11 : 00 hrs and from 14 : 00 to 17 : 00 hrs in September to February and 6 : 00 to 11 : 00 hrs and 14 : 00 to 18 : 00 hrs in March to August which is annually visited by 10,000 visitors. It has a collection of about 1000 trees and shrubs distributed in 95 species, 13 species of climbers, 35 species of green house and bulbous plants including ferns and succulents and 10 species of orchids. A few interesting spice plants viz., *Cinnamomum tamala* Nees., *C. zeylanicum* Blume, *Piper nigrum* L. etc. are in cultivation. There are three green houses. The Library has a collection of 23 books.

**LOCATION :** Cooch Behar, West Bengal.

**POSTAL ADDRESS :** Narendra Narayan Park, P.O. & Dist. : Cooch Behar, Cooch Behar 736 101.

**SOIL :** Sandy loam.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 26°20' N, *Long.* : 89°29' E, *Alt.* : 43.6 m, *Temp.* : 8° to 35.5°C (Min. in Dec.-Feb., Max. in Mar.-May), *Rainfall* (Mean annual) : 3450 mm (Min. in Dec.-Feb., Max. in Jul.-Sept.).

**STATUS :** Government of West Bengal, Parks and Gardens Wing, Forest Department. *Annual budget* : Rs. 5.6 lakhs.

**MANAGEMENT :** *Special Officer, Horticultural Officer* : 1, *Others* : 30.

There are about ten small parks being maintained by the Parks and Gardens Wing, West Bengal in different places at Cooch Behar town.

## SIM'S PARK, COONOR

It is a picturesque spot in upper Coonoor in the Nilgiris, superbly laid out in an undulating land in a deep ravine and is a real source of pleasure to visitors who admire beauty and serenity of nature. The park is christened after Hon'ble J. D. Sim, C.S.I. who was its prime architect.

Established in December, 1874 it covers an area of 12.14 ha of undulating land and is about 3 km to the north of Coonoor railway station. From Ootacamund one can reach the garden gate direct by public bus in only an hour. In fact all roads from Ootacamund, Kotagiri and Lower Coonoor converge on this place. The garden is open to the public at a nominal entry fee. Though originally conceived as a pleasure resort for the residents and visitors, the park has now taken upon itself the additional functions of a Botanic Garden, as well. It is now an annexe to the Government Botanic Gardens at Ootacamund.

The park can be divided into eight major sections. The natural shola with winding foot-paths all over the higher slopes is the most distinctive feature of this park which makes it more picturesque than the gardens at Ootacamund. Besides, there are lawns, beds of annuals in different terraces, attractive fountains, rockeries etc. With a collection of about 400 species of trees and shrubs of ornamental, economic, medicinal and horticultural interests, about 30 species of orchids, more than 300 varieties of roses, a good number of *Acacia*, *Camellia*, *Cinnamomum camphora* T. Nees & Eber., *Cupressus*, *Eucalyptus*, *Magnolia*, *Pinus*, *Prunus*, *Quercus*, *Rhododendron* etc. along the winding paths all over the higher slopes, the garden does a remarkable role in preserving the flora of the Nilgiris. Other attractions are the summer houses, ponds with two islands at the lowermost region, tennis court etc. The Pomological Station, the Pasteur Institute, the Malaria Research Institute, the silk farm are adjacent to the park. It has a small but expanding nursery unit which raises plants for sale and distribution to public. A new glass house has been constructed to exhibit temperate and subtropical plants.

**LOCATION :** Coonoor, The Nilgiris, Tamil Nadu.

**POSTAL ADDRESS :** Sim's Park, Coonoor, Nilgiri Dist., Tamil Nadu.  
**Telephone :** 278 (Office), 395 (Rest house).

**SOIL :** Laterite.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 11°21' N, Long. : 76°46'E, Alt. : 1768 m, Temp. : 10° to 21°C (Min. in Dec.-Jan., Max. in May-Jun.), Rainfall : 1500 mm (Min. in Dec.-Jan., Max. in Aug.).*

**STATUS :** Government of Tamil Nadu, Department of Horticulture and Plantation Crops.

**MANAGEMENT :** *Assistant Director, Horticulture-in-Charge, Horticultural Officer, Scientific and Technical : 1, Others : 35.*

## POMOLOGICAL STATION, COONOOR

The Pomological Station is located near Sim's Park, Coonoor and is situated near the entrance to the Pasteur Institute. This station owes its origin to a small orchard of 1.5 ha in Sim's Park Reserve transferred by the Forest Department to the Agricultural Department in 1907. In 1920 experimental work on growing of fruits of temperate and subtropical climates such as apple, pear, plum, peach, persimmon, fig etc. was commenced. The present area of the farm is about 6.7 ha.

The main objectives of the station are to introduce different kinds and varieties of fruit trees, vegetables, and other economic crops that are likely to thrive on the hills of South India and to study their suitability under this elevation, to test different rootstocks and to use the most suitable methods for propagation, to carry out experiments on hybridisation, flower and fruit formation etc.

The station is open from 9 : 00 to 17 : 00 hrs and is visited by about 20,000 visitors annually especially during April-May. It has a lot of varietal collections of apple, plum, peach, pear and a rare Japanese fruit—persimmon is found only in this station in South India. In addition other fruit crops like pomegranate, fig, cherimoyer, lemon etc. are also grown in this station. It supplies the needed budwood for propagation of fruit plants undertaken in the Government Orchard-cum-Nursery, Coonoor. It has developed technique of wrapping of apples. Mist chamber facility for propagation is also available.

**LOCATION :** Coonoor, The Nilgiris.

**POSTAL ADDRESS :** Pomological Station, Coonoor, The Nilgiris, Tamil Nadu. *Telephone* : 278.

**SOIL :** Fine loamy soil.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 11°21' N, *Long.* : 76°47' E, *Alt.* : 1750 m, *Temp.* : 11.6° to 20.1°C (Min. in Jan.-Feb., Max. in Apr.-May), *Rainfall* : 1603 mm (Min. in Jan.-Feb., Max. in Oct.-Nov.).

**STATUS :** State Government Establishment, Controlled by Department of Horticulture, Tamil Nadu State. *Annual budget* : Rs. 2.5 lakh.

**MANAGEMENT :** *Assistant Director of Horticulture*, Pomological Station, Coonoor, *Scientific & Technical* : 3, *Others* : 8 + Casual mazdoors.

## LLOYD BOTANIC GARDEN, DARJEELING

The Lloyd Botanic Garden, Darjeeling situated in the lap of hilly ranges of snow crowned Kanchanjungha was established in 1878 in order to develop it as a subsidiary garden to the Calcutta garden with a view to introducing and cultivating temperate plants. It is one of the centres of great tourist attraction in Darjeeling.

The garden covers an area of 16.7 ha about 2 km away from Darjeeling railway station and 40 km from Bagdogra air port. Darjeeling is also linked by roadways with Siliguri and New Jalpaiguri—the gateway to Darjeeling. The garden is visited every year during April-May and October-November by thousands of visitors from all over the country and abroad. It is open from sunrise to sunset.

About 1,800 species of exotic and indigenous plants including Bird of Paradise, conifers, *Ginkgo biloba* L., *Magnolia*, Maples and the living fossil—*Metasequoia glyptostroboides* Hu & Cheng. are grown in the campus which also contains some excellent hot houses, rockeries and nurseries. More than 2,500 orchids of various species are housed in two conservatories.

The garden has contributed to a great extent in the studies and researches in botany in India. Seeds are sent on request for research and teaching purposes, seedlings are distributed during Vanamahotsava month to interested public and advisory services rendered on beautification and horticultural developments of the locality.

The Herbarium has about 30,000 specimens covering mostly the species of Eastern Himalayas and the Library is enriched with over 490 books.

**LOCATION :** Darjeeling, West Bengal.

**POSTAL ADDRESS :** Lloyd Botanic Garden, Darjeeling 734 101. *Telephone :* 2358.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 27°3' N, *Long. :* 88°18' E, *Alt.:* 2134 m, *Temp. :* 1.5° to 25°C (Min. in Dec.-Jan., Max. in Apr.-May), *Rainfall :* 600 to 2200 mm (Min. in Apr.-Jun., Max. in Jul.-Sept.).

**STATUS :** Government of West Bengal, Department of Environment.

**MANAGEMENT :** *Assistant Curator, Scientific & Technical :* 2, *Others :* 15.



## BOTANICAL GARDEN, FOREST RESEARCH INSTITUTE AND COLLEGES, DEHRA DUN

This garden is perhaps the youngest (started in 1934) of the established big gardens in India but credited to a memorable task of introduction of a large number of species for developing forest wealth of the country.

It aims at carrying out researches on plant species of forestry, industrial and ornamental importance, building up germplasm of ligneous flora both indigenous and exotic, enrichment of species through seed and plant exchange programme and conservation of endangered taxa. The garden stores the scenic beauty and natural charm and attraction of the entire Doon valley located at the foot hills of the Himalayas and Siwalik ranges.

Designed formally and covering an area of about 50 ha including 40 ha arboretum and 0.2 ha water surface, the garden campus is situated about 7 km west of Dehra Dun railway station. The place is well connected by regular bus services from Agra, Delhi, Chandigarh, Simla, Mussorie and many such important tourist centres. The garden is visited annually by about 50,000 visitors from 9 : 00 to 16 : 30 hrs with no entry fee. March-April and October-November are the best months to visit.

About 2,000 trees and shrubs from 1,000 species and 1,200 varieties are in cultivation in this garden. In fact the garden and arboretum embody one of the richest live collections of woody taxa in Asia. The indoor plants are housed in a green house, a glass house and a conservatory. Apart from the valuable Bamboos and Gymnosperms it has a rich collection of other tree species. Some interesting collections are *Acacia karroo* Hayne, *Agathis robusta* Hook., *Araucaria columnaris* Hook., *Betula cylindrostachya* Wall., *Castanospermum australe* A. Cunn. & Fraser, *Casuarina cunninghamiana* Miq., *Cupressus cashmeriana* Royle, *Dendrocalamus giganteus* Munro, *Elaeocarpus sphaericus* (Gaertn) K. Schum, *Eucalyptus deglupta* Blume, *Ficus krishnae* A. DC., *Ginkgo biloba* L., *Homalium tomentosum* Benth., *Koelreuteria apiculata* Rehder & Wilson, *Liquidambar formosana* Hance, *Pterocarya stenoptera* DC., *Metasequoia glyptostroboides* Hu & Cheng, *Tabebuia argentea* Britton, *Taxodium mucronatum* Tenore etc. Researches are being carried out on plant taxonomy, introduction and conservation of threatened species, floristic surveys and preparation of monographs on bamboos, conifers and the family Meliaceae. Forest Officers under the cadre of Indian Forest Services (IFS) are being trained here. The garden started exhibition and Flower shows from March, 1983. It has exchange relations with leading institutions all over the world. About 3,30,000 specimens are deposited in its Herbarium

(DD). The Herbarium is air-conditioned and is supported by a rich Carpological Museum. The Library has 8,000 books, over 30 research journals (cumulative) and about 8,000 reprints. Publications from the department include *Index Seminum*, *Annual Reports*, *Forest Records*, *Forest Leaflets* and *Quarterly News Letters*.

LOCATION : Dehra Dun, Uttar Pradesh.

POSTAL ADDRESS : Botanical Garden, Forest Research Institute and Colleges, P.O.: New Forest, Dehra Dun (U.P.), India, Pin.: 248 006. Telephone : 27021-27028, extensions 286 and 267, Telex : 0595-258 FRIC-IN, Cable : FORESEARCH, Dehra Dun.

SOIL : Medium loam overlying boulder deposits of great depths, often shallow and stony. Soil and subsoil are porous and extremely well drained.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 30°20' N, Long. : 78°04' E, Alt. : 663 m, Temp. : 2.4° to 44°C (Min. in Jan., Max. in Jun.), Rainfall : 2200 mm (Min. in Nov., Max. in Jul.).

STATUS : Government of India, Ministry of Environment and Forests. Annual budget : Rs. 1.5 lakh.

MANAGEMENT : President, Forest Research Institute and Colleges, Forest Botanist, Officer-in-Charge, Scientific & Technical : 1, Others : 45.

## STATE HORTICULTURAL FARM, KALLAR

Established in 1900, this horticultural farm at Kallar at the foot hills of the Nilgiris lying about 1 km away from the first hairpin bent where the Udhagamandalam ghat road begins and is 8.95 ha in extent. Nearest railhead is Mettupalayam. The station serves as an introduction centre for various kinds and varieties of horticultural crops suitable for humid tropic conditions. The chief objectives are : (1) to introduce different kinds and varieties of sub-tropical and tropical spices and fruit crops and study their suitability for growing in this humid tract, (2) to carry out experiments on propagation, varietal, cultural and manurial aspects of fruit culture and spice growing, (3) propagation, multiplication and distribution of fruits and spices seedlings to the cultivators at reasonable price, (4) serving as an educational centre for many of the agricultural and botanical students to gain a first hand knowledge about many of the species and fruit crops which are not available elsewhere in South India, (5) serving to public as a picnic spot where people from various walks of life can visit and spend their time joyfully as well as usefully.

The station is open to public from 9:30 to 17:00 hrs and is visited by about 50,000 visitors especially from April to July. It has a collection of about 50 trees including spices, beverage trees and fruit trees like clove, nutmeg, cardamom, cinnamon, avocado, grape fruit, mangosteen, durian etc. It has mist chamber facilities.

**LOCATION :** The Nilgiris, Tamil Nadu.

**POSTAL ADDRESS :** State Horticultural Farm, Kallar, The Nilgiris, Tamil Nadu.

**SOIL :** Coarse loamy.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 11°19' N, Long. : 76°50' E, Alt. : 360 m, Temp. : 18° to 26°C (Min. in Dec.-Jan., Max. in Jun.-Jul.), Rainfall : 1300 to 1400 mm (Min. in Jan.-Feb., Max. in Oct.-Nov.).*

**STATUS :** State Government, Controlled by Department of Horticulture, Tamil Nadu. *Annual budget : Rs. 2 lakhs (approx.).*

**MANAGEMENT :** *Assistant Director of Horticulture, Pomological Station, COONOOR, Scientific & Technical : 4, Others : 4 + Casual labourers.*

## THE BRYANT PARK, KODAIKANAL

It is an exciting experience to visit the Bryant Park, Kodaikanal amidst the Palani Hills in the Madurai District of Tamil Nadu. Though designated as a park it has been able to include itself in the list of famous gardens of India because of its rich plant wealth and contribution to the development of botanical and horticultural knowledge.

Established in 1908 with an area of 8.8 ha including 0.4 ha of water area the campus is situated in the centre of the Kodaikanal town which can be reached by road either from Kodaikanal Road railway station (80 km) or from Madurai bus terminus (120 km). The journey along curves and bends of the mountain road is a real thrill as one comes across coffee plantations, *Eucalyptus* trees and other flowering plants.

Informally designed the garden is open from 8:30 to 12:30 hrs and again from 13:00 to 17:00 hrs with an entry fee of Rs. 0.10 per head. Summer (April to June) is the best season to visit. The garden has a collection of 325 trees and shrubs, nearly 100 species of annuals and perennials and a total of 742 varieties of floribunda and polyantha roses besides a good collection of cacti and succulents, orchids and chrysanthemums. The oldest tree in this park is *Eucalyptus globulus* Labill. It was reported to be planted in 1846. The approximate height is 79.5 m and girth 3.4 m. Inside there is one green house and one cactus house. The Library has a collection of 82 books. Flower show is organised during May by the Department of Horticulture in collaboration with the Kodaikanal Agri-Horticultural Society. In general the garden serves as a chief source of pleasure for seasonal visitors and hill residents of Kodaikanal, encourages horticulture and imparts knowledge to the students of botany.

**LOCATION :** Kodaikanal, Dist. : Madurai, Tamil Nadu.

**POSTAL ADDRESS :** Bryant Park, Kodaikanal, Tamil Nadu. *Cable :*  
KODAIKANAL.

**SOIL :** Black soil, slightly acidic.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 10°13' N, *Long. :* 77°32' E,  
*Alt. :* 2000 m, *Temp. :* 5° to 20°C (Min. in Nov.-Feb., Max. in Apr.-Jun.), *Rainfall :* 1200 to 2900 mm (Min. in Dec.-Apr., Max. in Aug.-Nov.).

**STATUS :** Government of Tamil Nadu, Department of Horticulture and Plantation Crops. *Annual budget :* Rs. 2.4 lakhs.

**MANAGEMENT :** *Assistant Director (Horticulture), Scientific & Technical :* 2,  
*Others :* 19.

## STATE HORTICULTURAL RESEARCH STATION, KRISHNANAGAR

Established in 1934, it is one of the oldest horticultural research stations in West Bengal, located about 2 km away from Krishnanagar City railway station (broad gauge) and about 5 minutes walk from Krishnanagar Road (metre gauge) railhead. The station may be visited from 10:30 to 16:30 hrs, best season being December and January.

The institute has three objectives : (1) conducting research work on major fruit and vegetable crops to select suitable varieties and clones for commercial cultivation, (2) production and distribution of planting materials and seeds and (3) training in cultivation of fruits and vegetables. It has a rich collection of germplasm of citrus, custard, guava, litchi, mango, sapota and other fruit and ornamental plants distributed in 20 species and 150 varieties of which the collection of mango and litchi is of special interest. There are three plant houses. One year's Gardeners' Training Course and field demonstration on varieties and agrotechnique of banana, mango, pineapple, vegetables etc. are conducted here. It participates in shows and exhibitions and publishes *Annual report* of work. The Library has 670 books and 20 research journals.

Significant contribution has been made by this institute in developing easier and cheaper methods of mango propagation. 'Veneer grafting' of mango propagation was first developed in India at this station. Later the most recent techniques viz., 'Chip budding' and 'Stone grafting'/'Epicotyl grafting' were developed.

There are 7 sub stations under its control in different agroclimatic conditions viz., (i) Banana Research Station, Chinsura, Hoogly, (ii) Mango Research Station, Malda, (iii) Horticultural Research Station for lateritic tract, Taldangra, Bankura, (iv) Pineapple Research Station, Mohitnagar, Jalpaiguri, (v) Temperate Fruit Research Station, Delapchand, Kalimpong, Darjeeling, (vi) Subtropical Fruit Research Station, Kalimpong, Darjeeling and (vii) Vegetable Research Station, Kalimpong, Darjeeling.

**LOCATION :** Krishnanagar, West Bengal.

**POSTAL ADDRESS :** State Horticultural Research Station, P.O. : Krishnanagar,  
Dist. : Nadia, West Bengal. *Telephone :* Krishnanagar 2442.

**SOIL :** Alluvial.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 23°24' N, *Long.* : 88°33' E,  
*Alt.* : 15 m, *Temp.* : 10.8° to 38.2°C (Min. in Jan., Max. in May),  
*Rainfall* : (Mean annual) 1300 mm (Min. in Dec.-Jan., Max. in Jul.-  
 Aug.).

STATUS : Government of West Bengal, Directorate of Agriculture.  
*Annual budget* : Rs. 20 lakhs.

MANAGEMENT : *Horticulturist, Scientific & Technical* : 30, *Others* : 20.

## **BOTANIC GARDEN, NATIONAL BOTANICAL RESEARCH INSTITUTE, LUCKNOW**

This premier Botanic Garden of India was established in 1953 and has played a significant role in exploration and utilisation of economic plant resources of the country.

It is primarily an educational centre with diverse field of activities. Chief objectives of this garden are introduction, conservation, documentation, propagation, protection and utilisation of nature as well as exotic plant wealth of subtropical and tropical climate with particular reference to non-agricultural and non-traditional plants of economic importance and ornamentals leading to identification and development of production technology for new plant resources of commercial importance.

The 25 ha informal garden with about 0.5 ha water area was previously known as 'Sikander Bagh' which was laid out around A.D. 1800, on the west bank of the river Gomati, about 5 km away from Lucknow railway station. The nearest railhead is Charbagh.

The garden is open free of cost from 5:00 to 18:00 hrs from April to October and from 6:00 to 17:30 hrs from November to March, 12:00 to 14:00 hrs being close hours for visitors. About one lakh visitors visit the garden in a year mostly during December to March which is the best season for the place to visit.

The garden has an arboretum, a rosarium, a conservatory, a cactus house, a fern house, a palm house, a vinetum, a mist chamber, a glass house and large collections of rose, canna, *Bougainvillea*, *Hibiscus*, *Callistemon*, *Chrysanthemum*, *Erythrina*, *Eucalyptus*, ferns, cacti and succulents, palms, bulbous plants and other house plants in about 6000 species and cultivars. Research activities include (1) organisation of genetic resource bank of living collections, (2) standardisation of agrotechnique for ornamentals, (3) evolution of new ornamental cultivars. Nearly 100 cultivars have been evolved by the institute and released for cultivation. Regular training course in *Chrysanthemum* culture, short courses in the cultivation of house plants, bonsai, rose and gladiolus are being conducted. Technical advice is rendered on ornamental horticulture and landscaping. Exhibitions and Flower shows organised by the garden annually are : House plants show, *Chrysanthemum* and *Coleus* show and Rose and *Gladiolus* show. Gate and remnants of old Sikander Bagh are some interesting structures in the garden. Publication of the garden includes *Index Seminum*,

*Annual Report* and *Quarterly News Letter* and biology of various species. The Herbarium has 89,000 specimens and the Library 34,250 research journals, 15000 reprints and 375 reprographic materials in addition to numerous old and new books.

**LOCATION :** Lucknow, Uttar Pradesh.

**POSTAL ADDRESS :** National Botanical Research Institute, Rana Pratap Marg, Lucknow 226 001. *Telephone :* 45365 PBX 47382, *Telex :* 0535-315, *Cable :* BAGH, Lucknow.

**SOIL :** Sandy loam.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 26°55' N, *Long. :* 80°59' E, *Alt. :* 113 m, *Temp. :* 1° to 46°C (Min. in Dec.-Jan., Max. in May-Jun.), *Rainfall :* 1000 mm (Min. in Apr.-May, Max. in Jul.-Aug.).

**STATUS :** Affiliated to Council of Scientific and Industrial Research (CSIR), Rafi Marg, New Delhi. *Annual budget :* Rs. 15 lakhs.

**MANAGEMENT :** *Director (NBRI) , Head (Garden and Conservation Discipline), Scientific & Technical :* 26, *Others :* 120.



## GOVERNMENT BOTANIC GARDENS, OOTACAMUND (UDHAGAMANDALAM)

In 1845 European residents of the Nilgiris decided to have a co-operative arrangement to raise temperate vegetables on the site of present garden. Early in 1847 at the instance of Marquis of Tweeddale, the then Governor of Madras, a fund was raised by donations and subscriptions to start a public garden and form a Horticultural Society. Mr. Mc. Ivor, the Superintendent of the garden since 1848 transformed the steep slopes into walks and terraces, lawns and flower beds in about a decade. Lindlay's natural system was followed in laying out this garden.

This beautiful garden in a ravine with distinct freshness of air due to its natural surroundings, has been a centre of tourist attraction in Ootacamund, a delightful hill station crowning the Nilgiris or Blue Mountains of Tamil Nadu.

Informally designed and covering an area of 22 ha with some water surface, the garden is located 2 km away from Ootacamund railway station and bus terminus and is adjacent to the Raj Bhavan, Ootacamund. It is visited yearly by about 5 lakhs people from 7:00 to 19:00 hrs with an entry fee of Rs. 0.25 per head. April-May and September-October are best seasons.

The objectives of the garden are (1) to encourage horticulture and serve as an object lesson to students of botany, (2) to introduce exotic, ornamental and economic plants, (3) to further the distribution of seed and plants, (4) to serve as a centre for information on the intensive flora of the hills and other exotic collections, (5) to help sister institutions by supplying of valuable botanical specimens and other economic samples like Eucalyptus oil, Jalap, Pyrethrum, Belladonna, Digitalis etc. and to be of use to all, as far as possible, by rendering the garden produce—cut flowers, bouquets, wreaths, grasses, button holes etc. available for sale to the public and (6) to continue to serve the hill residents and visitors as their chief pleasure resort during their visit to the queen of hill stations.

The garden is divided into six different sections, viz., (1) The front (lower) gardens comprising of the entrance and lower lawns and the new garden. This leads into undulating lawns of Kikuyu grass (*Pennisetum clandestinum* Hochst ex Chiov), a fern house with 127 species of ferns, a carpet bed design of a map of the Indian Union laid out with selective plants and the fossil trunk of 20 million years old erected on a pedestal. Tree

species growing in this section include *Cedrus deodara* Loud., *Araucaria bidwillii* Hook., *Cordyline australis* Hook. f., *Cupressus funebris* Endl., *C. macrocarpa* Hartw., *Cryptomeria japonica* D. Don, *Eucalyptus maculata* Hook., *E. citriodora* Hook., *Salix babylonica* L., *S. heterophylla* Schur., *Podocarpus taxifolia* H. B. & K., *Dracaena* sp., *Rhododendron arboreum* Sm., *Quercus montana* Willd., *Magnolia grandiflora* L. etc. A new garden has been developed recently in this section which includes a rose garden with 300 varieties of hybrids, floribunda and polyantha roses, carpet beds of emblems of Government of Tamil Nadu and Government of India etc. Important tree species viz. *Taxodium mucronatum* Ten., *Pteris* sp., *Ginkgo biloba* L., *Pinus wallichiana* A. B. Jackson, *P. canariensis* Sm., *Eucalyptus eugenioides* Sieber ex Spreng., *Araucaria cunninghamii* Ait., *Cupressus lawsoniana* Andr. etc. adds to the panoramic view of the garden. (2) The Bandstand : This part presents a gorgeous look with several varieties of colourful annuals. Tree species grown in this part of the garden are *Prunus puddum* Roxb., *Saurauja napaulensis* DC., *Grevillea hilliana* F. Muell., *Aesculus punduana* Hiern, *Pinus sabiniana* Dougl., *Cupressus torulosa* D. Don etc. (3) The conservatory and its surroundings : The conservatory contains colourful annuals and perennials like *Cineraria*, *Balsam*, *Schizanthus*, *Gloxinia*, *Begonia*, *Coleus*, *Geranium*, *Chrysanthemum*, *Primulas* etc. The Bog Garden towards east of conservatory contains Weeping Willows, *Hedychium*, *Arum* and *Hydrangea* etc. The Rock and Alpine Gardens are newly added to this section. Important tree species in this locality are *Alsophila australis* R.Br., *Acer caudatum* Wall., *Alnus nepalensis* D. Don, *Eucalyptus ficifolia* F. Muell., *Melaleuca styphelioides* Sm. etc. (4) The fountain terrace and the picnic grounds : It contains symmetrical flower beds, some tall and graceful tree ferns, a sunken garden, two summer houses, picnic grounds and plants like *Glochidion neilgherrense* Wight, *Podocarpus elongata* L. Herit ex Pers., *Bucklandia populnea* Br. etc. (5) The new Bandstand and its surroundings : Serves as a summer house with typical formal and symmetrical flower beds. (6) The Nurseries : Located about 100 m above the lower lawns and consist of 7 glass houses and a series of terrace.

The plant wealth of the garden consists of 1034 species belonging to 571 genera and 152 families with a large collection of gymnosperms viz. 12 species of *Cupressus*, *Cedrus*, *Pinus*, *Juniperus*, *Sequoia*, *Widdingtonia*, *Fitzroya*, *Cryptomeria*, *Araucaria*, *Ginkgo*, *Taxodium* etc. Besides a pleasure resort this garden serves as a botanical centre to students of botany by supplying specimens for herbarium and research. It is fully devoted to the development of ornamental horticulture. Recently, attempts are made to develop an Orchidarium for which 120 nos of orchids have been introduced. Preparation of *Index Seminum* is in progress.

LOCATION : Ootacamund, The Nilgiris, Tamil Nadu.

POSTAL ADDRESS : Government Botanic Gardens, Ootacamund, The Nilgiris, Tamil Nadu. *Telephone* : 2545.

SOIL : Laterite.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 11°24' N, *Long.* : 76°44' E.  
*Alt.* : 2400-2500 m, *Temp.* : 2.7° to 30°C (Min. in Jan.-Feb., Max. in Apr.), *Rainfall* : 1400 mm (Min. in Jan., Max. in Aug.).

STATUS : Government of Tamil Nadu, Department of Horticulture & Plantation Crops.

MANAGEMENT : *Assistant Director of Horticulture, Scientific & Technical* : 4,  
*Others* : 43.

## THE BOTANICAL GARDEN, PONDICHERRY

Established in 1826, this garden in the Roman Catholic style covering an area of about 11 ha is located in southeast of Pondicherry town and is open to visitors from 16 : 00 to 19 : 00 hrs on permission. The nearest railhead is Pondicherry and the place is well connected by roadways with all important towns and cities of Tamil Nadu. Usual visiting months are January and February and annual visitors are 1,00,000.

Chief objectives of the garden are : (1) to study the behaviour pattern of different species of plants in Union territory, (2) to collect and maintain rare species, (3) to promote and encourage the study of botany in academic institutions in and around Pondicherry, (4) to serve as an academic and recreation centre, (5) to bring about integration in the functions of academic institutions and research centres and (6) to cater to the needs of a public garden.

The garden has to its credit about 2260 trees and shrubs and a number of other ornamental plants in 500 species. It has one glass house and two green houses. A mini Botanical Garden of Floriculture Section is under its control. Researches are carried out on introduction, acclimatisation and testing the performance of plants under local conditions. Trials are also made on several varieties of roses. The garden organises Annual Flower show. Interesting structures include are S. G. Perohet monuments and Barathamada statue. *Index Seminum* of 'Medicinal plants and Beautiful flowers of Botanic Garden' have been published. The Herbarium contains 250 specimens and the Library 60 books.

LOCATION : Pondicherry.

POSTAL ADDRESS : Botanical Garden, P.O. & Dist. : Pondicherry. Telephone : 6306.

SOIL : Sandy loam.

GEOGRAPHIC AND CLIMATIC DATA: *Lat.* : 11° 45' to 12° 50' N, *Long.* : 79° 5'E, *Alt.* : 2 m, *Temp.* : 24.2° to 31.7°C (Min. in Jan., Max. in Jun.), *Rainfall*: 1206 mm (Min. in May, Max. in Nov.).

STATUS : State Government Organisation under Director of Agriculture, Pondicherry. *Annual budget* : 3.73 lakhs.

MANAGEMENT : *Head* : Deputy Director of Agriculture (Horticulture), *Scientific & Technical* : 4, *Others* : 3.

## JAWAHARLAL NEHRU BOTANIC GARDEN, RUMTEK, SIKKIM

The garden covers an area of about 76 ha and is a part of over 300 ha reserve forest close to the Rumtek Monastery bearing collection of a good number of plants of diverse habits including orchids and other interesting plants as follows : *Agapetes serpens* (Wt.) Sleumer, *Agrostophyllum brevipes* King & Pantl., *Arisaema concinnum* Schott., *Arundinaria hookeriana* Muir., *Beilschmiedia gammieana* King ex Hook. f., *Bulbophyllum gamblei* Hook. f., *Cinnamomum glanduliferum* (Wall.) Meisn., *Daphniphyllum himalayense* (Benth.) Muell.-Arg., *Davallia immerse* Wall., *Dendrobium chrysanthum* Wall., *Edgeworthia gardneri* Meisn., *Engelhardia spicata* Lesch ex Blume, *Evodia fraxinifolia* Hook. f., *Eurya japonica* Thunb., *Exbucklandia populnea* (R. Br. ex Griff.) Brown, *Gynocardia odorata* R. Br., *Hoya linearis* Wall., *Litsea elongata* (Nees) Hook.f., *Lycopodium phlegmaria* L., *Macaranga denticulata* (Blume) Muell.-Arg., *Machilus edulis* King, *Maesa chisia* Buch.-Ham. ex D. Don, *Mallotus philippensis* (Lamk.) Muell.-Arg., *Michelia cathcartii* Hook. f. & Thoms., *M. doltsopa* Buch.-Ham., *M. velutina* DC., *Peperomia tetraphylla* (Forst. f.) Hook. & Arn., *Persea gammieana* (King ex Hook. f.) Kosterm., *Persicaria capitata* (Buch.-Ham. ex D. Don) Gross., *Phoebe heinesiana* Br., *P. lacneolata* Nees., *Pholidota imbricata* Lindl., *Pseudodrynaria coronans* (Wall. ex Mett.) Ching., *Quercus lanceaefolia* Roxb., *Q. lamellosa* Sm., *Q. lineata* Blume, *Q. spicata* Smith., *Schima wallichii* Chiosy, *Salaginellabisulcata* Spring., *Symplocos theifolia* D. Don, *Toona ciliata* M. Roem., *Vaccinium serratum* Wight, *Viola diffusa* Ging. ex DC.

LOCATION : Rumtek, Sikkim.

POSTAL ADDRESS : Jawaharlal Nehru Botanic Garden, Rumtek, Sikkim.

SOIL : Forest & hill soil.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 27°30' N, *Long.* : 88°30' E,  
*Alt.* : 1800 to 2200 m, *Temp.* : 10° to 30°C (Min. in Jan., Max. in Jul.),  
*Rainfall* : 200-400 cm (Min. in Jan., Max. in Jul.).

STATUS : Controlled by Land Use and Environment Department, Government of Sikkim.

**HORTICULTURAL EXPERIMENT AND TRAINING  
CENTRE, SAHARANPUR**  
(formerly Botanic Garden)

Initially known as 'Farahat-Baksh', the garden one of the oldest of its kind in India played cardinal role in introduction and acclimatization of medicinal plants and served as a centre of research in taxonomy.

Reoriented on a commercial line in the production of seeds and plants for sale, the garden (established prior to 1750) now conducts researches on subtropical and tropical fruits, flowers and vegetables and conserves a vast collection of economic, medicinal and ornamental plants.

Informally designed it covers an area of 67.9 ha and is located about 1.5 km away from Saharanpur railway station. Best season to visit is from October to March. In summer it opens from 5 : 00 to 7 : 00 hrs and again from 17 : 30 to 19 : 30 hrs. In winter opening hours are 6 : 00 to 8 : 00 hrs and 16 : 30 to 18 : 00 hrs with no entry fee.

The garden has a rich collection of tropical and subtropical fruits, flowers and vegetables in 1,500 varieties including *Ficus retusa* L., *Gleditschia ferox* Desf., *Haematoxylon campechianum* L., *Ilex paraguensis* St., *Koelreuteria paniculata* Laxm., *Macademia ternifolia* F. Muell, *Pithecelobium saman* Benth., *Schotia brachyptala* Sond. *Zamia latifolia* Lodd. etc. There are two green houses and five glass houses. Researches are being carried out on propagation, nutrition, pest and disease control and raising of new varieties of different fruits and bee keeping. Enriched with an equipped laboratory it has developed Papain production technology and various propagational methods. A Japanese Garden within is a source of pleasure to the visiting public. The garden organises winter Flower show, arranges in-service training to the departmental officers and officials in respect of horticulture and bee keeping and supplies plants, bee colonies and technical advice.

The garden Library has a collection of 2148 books and 2534 research journals.

**LOCATION :** Saharanpur, Dist. : Saharanpur, Uttar Pradesh.

**POSTAL ADDRESS :** Horticultural Experiment and Training Centre, Saharanpur. *Telephone :* 3126.

**SOIL :** Sandy loam.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 29°58' N, *Long.* : 77°33' E,  
*Alt.* : 275 m, *Temp.* : 6.2° to 39.2°C (Min. in Jan., Max. in May), *Rain-  
fall* : 765 mm (Min. in Apr., Max. in Jul.-Aug.).

STATUS : Government of Uttar Pradesh, Department of Horticulture and  
Fruit Utilization. *Annual budget* : Rs. 21 lakhs.

MANAGEMENT : *Deputy Director (Horticulturist), Scientific & Technical* : 64,  
*Others* : 162.

## BOTANIC GARDEN, ORCHID RESEARCH AND DEVELOPMENT CENTRE, TIPPI, BHALUKPONG

The objectives of this newly established (1972) institute is to demarcate rare orchid areas, conservation, multiplication and applied researches and training in orchid industry.

This is the main centre of research activities with Divisions of Field Stations under these are (1) Orchid Sanctuary, Sessa, W. Kameng District (area : 85 ha), (2) Orchid Sub-centre, Direng, W. Kameng District (area : 15 ha) and (3) Orchid Sub-centre, New Itanagar, Lower Subansiri District (area : 2 ha).

The main centre is 53 km away from the nearest railway station, Rangapara. It is annually visited by 3000-5000 visitors especially during March to May from 8 : 00 to 12 : 00 hrs and 14 : 00 to 16 : 00 hrs.

The garden contains 19322 orchids representing 93 genera and about 400 species including rare and endangered species of north east region and a few collection of ornamental, timber and succulent plants. Rare orchids cultivated in this centre include *Acanthephippium sylhetense* Lindl., *Arachnis cathcartii* J. J. Sm., *A. clarkei* (Rchd. f.) J. J. Sm., *Biermannia jainiana* Hegde et Rao, *Calanthe herbacea* Lindl., *Chrysoglossum robinsonii* Ridl., *Cleisostoma tricallosa* Hegde et Rao, *Cymbidium macrorhizon* Lindl., *C. munronianum* K. & P., *Dendrobium bensoniae* Rchb. f., *Dendrobium subulatum* Lindl., *Diplomeris hirsuta* Lindl., *Epipogum roseum* (D. Don) Lindl., *E. sessanum* Hegde et Rao, *E. tuberosum* Duthie, *Eria connata* Joseph, Hegde et Rao, *Herminium longilobatum* Hegde et Rao, *Listera divaricata* Panigrahi & Taylor, etc. One glass house and 7 green houses are located inside. Researches are carried out on orchids, taxonomy, ecology, breeding and seed and tissue culture in a well established laboratory. A training course on orchid cultivation has been arranged here. Facilities are also available for Library with 242 books and 36 research journals on orchids and a Herbarium containing about 1025 specimens of orchids representing 84 genera and about 300 species.

**LOCATION :** Tippi, Dist. : Kameng, Arunachal Pradesh.

**POSTAL ADDRESS :** Botanic Garden, Orchid Research and Development Centre, Tippi, Bhalukpong 790 114. *Cable :* ORCHIDS, Lokra.



SOIL : Sandy loam.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 27°1' N, *Long.* : 92.6' E, *Alt.* : 190 m, *Temp.* : 10° to 40°C (Min. in Jan., Max. in Aug.), *Rainfall* : 4000 mm (Min. in Feb., Max. in Jul.).

STATUS : Government of Arunachal Pradesh. *Annual budget* : Rs. 8 lakhs.

MANAGEMENT : *Orchidologist, Scientific & Technical* : 21, *Others* : 19.

## GOVERNMENT BOTANIC GARDENS, TRIVANDRUM

This botanic garden under the Department of Museum & Zoos, Government of Kerala is located about 4 km away from Trivandrum Central railhead. It started in 1858 as a Museum with Mr. Allen Brown, FRS as the Director. General Kallan, the British resident at that time was the Patron. In 1870 a Zoo and a Botanic Garden started functioning. The aim of this Botanic-Zoological Garden was to attract people to Museum. Mr. F. J. Ingleby, an expert from Kew Botanic Garden made a complete landscape of the present botanic garden which covers an area of about 27 ha including animal houses and buildings with 1.5 ha water area.

It is a combination of formal and informal type garden and is open from 7 : 30 to 17 : 30 hrs. The Nursery hour is 7 : 30 to 11 : 30 hrs and 14 : 30 to 17 : 30 hrs with free entry. Fee at one rupee per head is levied for entry into Zoo garden. Best season is from September to March. Annually visited by about 4 lakh visitors.

The garden has a wonderful collection of tropical and ornamental flowering trees, shrubs, foliage and green house plants in 800 species and 4000 varieties. It has two green houses and one conservatory. It aims at education and recreation, promotes horticulture, supplies botanical specimens for practical studies in colleges, imparts honorary consultancy in landscaping and conducts annual Flower, Fruit and Vegetable shows in collaboration with Agri Horticultural Society, Trivandrum. Important structures inside include Napeer Museum. *Guide Books* and catalogues are published. The Library has 1000 books.

**LOCATION :** Trivandrum, Kerala.

**POSTAL ADDRESS :** Government Botanic Garden, Department of Museum & Zoos, Trivandrum 695 001, Kerala. *Telephone :* 62275, *Cable :* MUSEUM, Trivandrum.

**SOIL :** Laterite.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 8°29' N, *Long. :* 76°57' E, *Alt. :* 50 m, *Temp. :* 19.6° to 34.3°C (Max. in Mar.-Apr., Min. in Dec.), *Rainfall :* 181 cm (Min. in Feb., Max. in Apr.).

**STATUS :** Government of Kerala, Department of Museum & Zoos. *Annual budget :* Rs. 55 lakhs for Zoo, Museum & Gardens.

**MANAGEMENT :** *Director, Superintendent, Zoo & Garden Section, Scientific & Technical :* 6, *Others :* 107.

## BOTANICAL GARDENS, WAGHAI-DANGS

The garden (established in 1964) is situated in the compartment of the reserve forests of Dangs on the Waghai Saputara road, about 2 km from Waghai and extends to an area of 24 ha. It can be reached either by bus or by train from Bilimora which is the nearest railway station. One should prefer buses as they are available frequently from Bilimora. The garden derives its importance by being so near to Saputara, a picturesque hill station located about 300 m above msl.

Symmetrically designed, the garden is open to public from 8 : 00 to 12 : 00 hrs and again from 14 : 00 to 18 : 00 hrs daily with no entry fee. It is visited annually by about 8000 visitors mostly during autumn and winter.

The garden has a collection of about 1800 species including annuals and 800 well established trees and shrubs. It has one green house and one conservatory. The garden maintains a Herbarium with 10,000 specimens and carries on researches on species of different forest types and their growth activities. Facilities of a Rest House and Laboratory are available. The Library has a collection of 600 books and 50 research journals.

LOCATION : Waghai-Dangs, Dist. : Dangs, Gujarat.

POSTAL ADDRESS : Waghai-Dangs (Via Bilimora), Pin : 394 730. Telephone : 54.

SOIL : Black alluvial.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 21°2' N, *Long.* : 73°5' E, *Alt.* : (msl) 280 m, *Temp.* : 10° to 38°C (Min. in Jan., Max. in Apr.-May), *Rainfall* : 250 to 400 mm (Min. in Sept. Max. in Jul.-Aug.).

STATUS : Government of Gujarat State, Forest Department. *Annual budget* : Rs. 3 lakhs.

MANAGEMENT : *Superintendent, Scientific & Technical* : 2, *Others* : 45 (including 35 casual mazdoors).



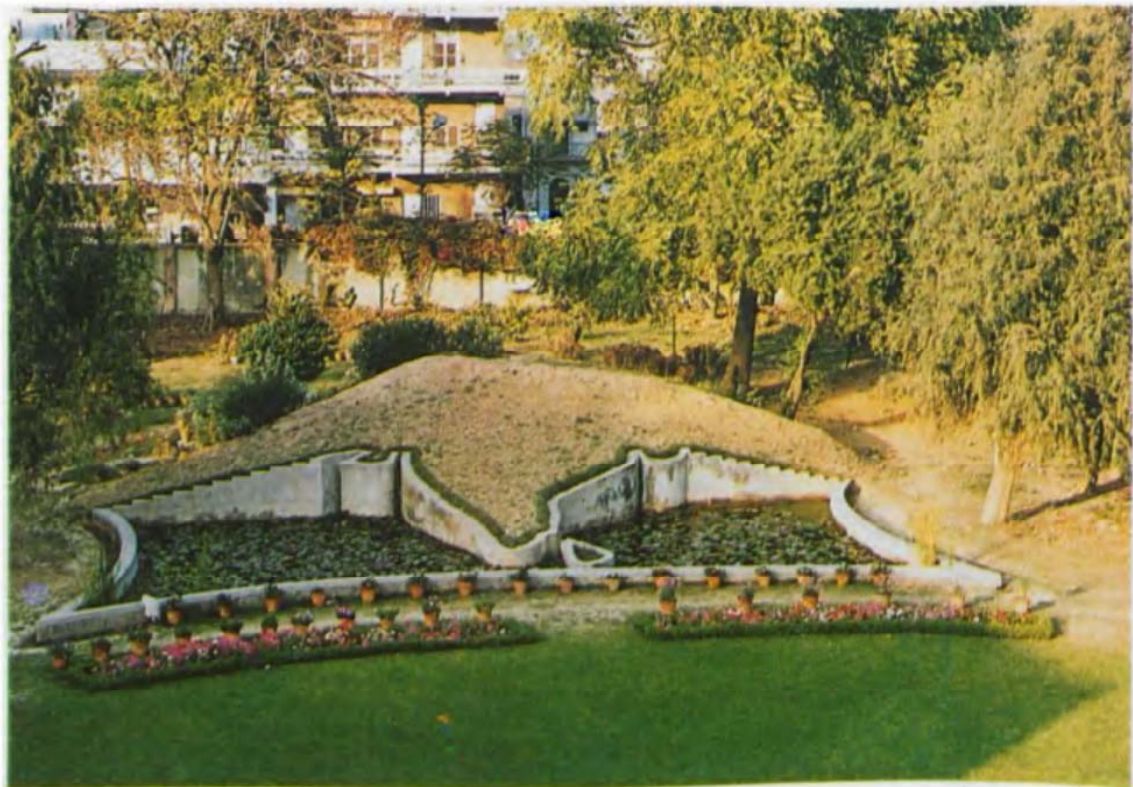
Double road entrance at the Lalbagh Botanic Garden, Bangalore.



The *Roystonea* avenue at the Lalbagh Botanic Garden, Bangalore.



**Talkatora Swimming Pool with surrounding Gardens, New Delhi.**



**A view of the Roxburgh Botanic Garden, University of Allahabad, Allahabad.**

**B. PARKS AND GARDENS OF PUBLIC  
AND ACADEMIC INTEREST**

## BOTANICAL GARDEN, AGRA COLLEGE, AGRA

The garden was made to impart training to graduate and post graduate students of botany. Established in 1930, it covers an area of 2.5 ha and is located very near to Agra railway station. The garden is kept open from 10 : 00 to 17 : 00 hrs and is best displayed during winter.

Inside the premises there are 500 trees and shrubs and a good collection of ferns and flowering plants, total species being 300. Two green houses and 5 glass houses contain a large number of indoor plants. Field of research is on plant ecology. The garden is in a position to provide materials like *Ephedra*, *Salvadora* and *Leptadenia* on exchange basis. The Library has a collection of 1000 books and subscribes to 4 research journals.

LOCATION : Agra, Uttar Pradesh.

POSTAL ADDRESS : Agra College, Agra.

SOIL : Loam.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 27° 10' N, *Long.* : 78° 5' E,  
*Alt.* : 160 m, *Temp.* : 5° to 40°C (Min. in Dec., Max. in Jun.), *Rainfall* :  
800 mm (Min. in Nov., Max. in Aug.).

STATUS : Autonomous Body. Controlled by College Administration.  
*Annual budget* : Rs. 10,000.00.

MANAGEMENT : *Head of the Department of Botany, Scientific & Technical* : 5,  
*Others* : 17.

## **THE RETREAT BOTANICAL GARDEN, SHAHIBAG, AHMEDABAD**

This garden at Shahibag near Ahmedabad established in 1979 covers 2.6 ha and is in a developing stage and has not yet been made open to public.

Inside the campus there are about 8,000 trees and shrubs and other interesting collections of roses, cacti and succulents, orchids etc. distributed in about 160 species. Two green houses contain good collections of foliage plants. The garden Herbarium has about 100 specimens and Library 200 books.

**LOCATION :** Ahmedabad, Gujarat.

**POSTAL ADDRESS :** The Retreat, Sarabhai Foundation, Shahibag, Ahmedabad 380 004. *Telephone : 68172, Cable : SARA, Ahmedabad.*

**SOIL :** Black and sandy.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 23°03' N, Long. : 72°40' E, Alt. : 20 m, Temp. : 24° to 38°C (Min. in Dec.-Jan., Max. in Mar.-Jun.), Rainfall : 1600 mm (Min. in Feb.-Mar., Max. in Jul.-Sept.).*

**STATUS :** Private, controlled by Sarabhai Foundation. *Annual budget : Rs. 50,000.00.*

**MANAGEMENT :** *Head of the Garden, Scientific & Technical : 2, Others : 12.*



## **SRI CHAMARAJENDRA PARK (CUBBON PARK), BANGALORE**

Part of the sprawling Residency Park was named after Sir Mark Cubbon, K.C.B., who was the Commissioner of Mysore and Coorg (between 1834 and 1861). The equestrian statue of Maj. Gen. Sir Mark Cubbon stands majestically overlooking the extensive park on the uppermost terrace behind the High Court buildings.

After reorganisation of States in 1956 and construction of Vidhanasoudha, the seat of the Government of Karnataka, the gardens around the new edifice which is adjacent to this park is also maintained by this unit. Both areas serve as not only a tourist attraction but also the needed lungspace of this metropolis. It is the largest woodland park in the country. It acts as an inspiration to achieve the higher values of life.

Offices of the District Horticultural Officer and Senior Assistant Director of Horticulture of this department are located in this park and act as a guiding centre for all horticultural activities in Bangalore district. The Archaeological Museum, the Venkatappa Art Gallery, Visweswariah Industrial and Technological Museum, Jawahar Balbhavan, the Government Aquarium and the public Library are all located in this park.

Established in 19th century it is well connected by road from the air port and city (3 km) and Cantonment (2 km) railway stations. Extending over an area of 124 ha with 0.25 ha of water spread (Lotus pond), the park partly terraced, is a wooded paradise for the aesthetic values of life. A visitor to Bangalore either from any part of India or from abroad can never miss this idyllic part of the garden city of India. About 20 lakhs persons visit this area throughout the year mostly from August to November. It is an open park and has no restrictions on entry. Greatest floral display is exhibited from August to November and January to April.

Cubbon Park has two green houses and a plant wealth of more than a thousand varieties of trees and shrubs and some part or the other of the park will be in bloom throughout the year including the following plants and features :

(1) *Araucaria* : 4 different species have been grouped near High Court and the whole frontage of nearly 2 ha is proposed to be developed by collection of other *Araucaria* species also; (2) A *Ficus benjamina* L.

lawn has been developed; (3) Groupings of different species of *Cassia*, *Lagerstroemia* and *Tabebuia* have been developed; (4) Avenues of (i) *Swietenia mahagoni* (L.) Jacq.; (ii) *Castanospermum australe* A. Cunn. & Fraser; (iii) *Samanea saman* (Jacq.) Merrill.; (iv) *Delonix regia* (Boj. ex Hook.) Raf.; (v) *Araucaria cookii* R. Br. ex D. Don; (5) The lotus pond has 6 different varieties of lotus in both colour and type; (6) The bamboo grove is a fantastic grouping of bamboos; (7) Rose gardens in the area has a collection of more than 3,000 roses of different lines and size; (8) The type of terracing done in front of Vidhanasoudha and the convex type terracing facing the High Court and Cubbon Statue are unique; (9) The collection of Sansevierias on the slopes of the Sunk garden near the statue lends grace to the surroundings; (10) Proposals are in hand to develop a cacti and succulents park near Queens Gate and also for the use of the natural rocky out crop.

Many historical monuments are found here. Statues of (1) Maj. Gen. Sir Mark Cubbon (1861), (2) Sri Chamarajendra Wadiyar, the Maharaja of Mysore (1889), (3) Sir K. Seshadri Iyer (1913), (4) Queen Victoria (1906), (5) King Edward VII (1919), (6) Dr. Ambedkar (1982) are located here.

Cubbon Park has been renamed as Sri Chamarajendra Park.

The important buildings located in Cubbon Park are (1) The Majestic Vidhanasoudha, (2) High Court Buildings, (3) Public Library, (4) The Archaeological Museum.

The place of interest and beauty spots in Cubbon park are : (1) Statue Garden, (2) Bandstand, (3) Bamboo Grove, (4) Balbhavan, (5) Visweswaraiiah Industrial and Technological Museum, (6) Archaeological Museum, (7) Venkatappa Art Gallery, (8) Rose gardens on car shed near Vidhanasoudha, (9) Rose gardens in front of Public Library, (10) Lotus Pond, (11) Queen's Park, (12) Tennis Stadium.

**LOCATION :** Heart of Bangalore City between Old City and Cantonment areas, Dist.: Bangalore, Karnataka.

**POSTAL ADDRESS :** Cubbon Park, Bangalore 560 001, Karnataka. *Telephone* : 56-4125.

**SOIL :** Red sandy loam and red gravelly.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 12°57'N, *Long.* : 77°35'E,

*Alt.* : 914.4 m, *Temp.* : 14.0° to 37.0°C (Min. in Oct.-Nov., Max. in Apr.-May), *Rainfall* : 880 mm (Min. in Sept., Max. in Jan.).

**STATUS** : Government of Karnataka. Directorate of Horticulture, Lalbagh, Bangalore 560 004. *Annual budget* : Rs. 15.00 lakhs.

**MANAGEMENT** : *Deputy Director of Horticulture, Scientific & Technical* : 8,  
*Others* : 244.

## **JAWAHAR KUNJ GARDEN, BARRACKPORE**

Established in 1964 this garden covers an area of about 6 ha and is located near Barrackpore, about 30 km from the city of Calcutta. It can be reached from Barrackpore railway station or straightway by roadways from Calcutta through direct roadway services plying between these two places. The garden is divided into four sectors—two with imposed restriction on public entry and two others meant for public without entry fee from 6:00 to 11:00 hrs and from 14:00 to 17:00 hrs. It has a collection of about 2000 perennial plants distributed in about 250 species of common occurrence and a beautiful collection of roses. There are one green house and one aviary. Tourist Department, West Bengal has set up four tourist cottages inside as public amenity.

**LOCATION :** Barrackpore, West Bengal.

**POSTAL ADDRESS :** Range Officer, Jawahar Kunj, P.O. : Barrackpore,  
Dist. : North 24-Parganas.

**SOIL :** Gangetic alluvial.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 22°46' N, *Long.* : 88°24' E,  
*Alt.* : 6 m, *Temp.* : 15° to 33°C (Min. in Dec.-Jan., Max. in Jun.-Jul.),  
*Rainfall* : 1032 mm (Min. in Dec.-Jan., Max. in Jul.-Aug.),

**STATUS :** Government of West Bengal.

**MANAGEMENT :** *Range Officer* : 1, *Others* : 20.

## GARDEN COMPLEX, BHEL, BHOPAL

The initiative to build up a garden complex at BHEL, Bhopal, located at a distance of 10 km from Bhopal railway station, was taken up in 1965 in about 125 ha of land area which includes setting up a Botanic Garden exclusively on a beautiful undulated land surface. Chief objectives of the gardens are to provide recreation, aesthetic improvement of the township, pollution control and to provide technical assistance to students.

Informally designed, the gardens are open to public from 14 : 00 to 21 : 00 hrs which draw about 50,000 visitors annually especially during winter.

The gardens have a collection of about 10,000 plants including some beautiful trees and shrubs viz., *Cassia nodosa* Buch.-Ham. ex Roxb., *C. javanica* L., *Erythrina indica* Lam. var. *variegata*, *Allamanda schottii* Pohl., *Beloperone guttata* T. S. Brandegee, *Dombeya* sp. etc. besides 75,000 plantations in the urban forestry. There are 4 well maintained nurseries. Green houses are under construction. Annual Flower show is organised by the gardens which also participate in All India and State level Flower show competitions. A separate 'children park' maintained by the garden has mini train for joy ride, factory product models for display, statues of national leaders etc. The authorities wish to have exchange of plant materials with gardens in India and abroad. The Library has a good collection of horticultural books. Besides maintaining gardens and nurseries, vigorous efforts are made for afforestation programme for which few lakhs of plants have already been planted.

LOCATION : Bhopal, Madhya Pradesh.

POSTAL ADDRESS : BHEL (Piplani), Bhopal. Telephone : 75371, Telex : 0705-206-264.

SOIL : Black cotton soil, rocky hard copra.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 23°16'N, Long. : 77°25'E, Alt. : 503 m, Temp. : 10° 45.6°C (Min. in Jan., Max. in Apr.-Jul.), Rainfall : 900-1000 mm (Min in Dec., Max. in Jul.).

STATUS : A Central Government Undertaking, controlled by Horticulture Department, BHEL, Bhopal. Annual budget : Rs. 20 lakhs.

MANAGEMENT : Deputy Manager (Hort. & W/S), Scientific & Technical : 8, Others : 92, Contract labours : 250.

## VEERMATA JIJABAI BHOSLE UDYAN AND PRANISANGRAHALAYA, BOMBAY

This institution aims at generating awareness to love for the plants and animals in public within the municipal corporation of greater Bombay.

Established in 1862, this informal garden covers an area of 19.4 ha including 0.5 ha water surface and is only a few km away from the nearest railway station, Byculla. Visited by about 40 lakh visitors annually especially during December to February, the garden is open to the public from 8 : 00 to 18 : 00 hrs with an entry fee of Rs. 0.20 per adult and Rs. 0.10 per child.

The garden has a collection of 480 species which includes 3,624 trees and shrubs and a rich collection of foliage plants. Botanical specimens, flowers, leaves are supplied free to various colleges. There are four plant houses inside the premises. The garden Library has a collection of 2,348 books. Bhau Daji Lad Museum is a special attraction inside.

**LOCATION :** Bombay, Maharashtra.

**POSTAL ADDRESS :** Veermata Jijabai Bhosle Udyan and Pranisangrahalaya, Byculla, Bombay 400 027. *Telephone : 37 5799, 37 3560.*

**SOIL :** Filled up marshy land.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 18°53'N, Long. : 72°48'E, Alt. : 6 m, Temp. : 17.5° to 41°C (Min. in Nov.-Jan., Max. in Jul.-Aug.), Rainfall : 2220 mm (Min. in Jun., Sept.-Oct., Max. in Jul.-Aug.).*

**STATUS :** Garden Department, Municipal Corporation of Greater Bombay.  
*Annual budget : Rs. 82.14 lakhs.*

**MANAGEMENT :** *Superintendent of Gardens, Scientific & Technical : 6, Others : 50.*

## THE AGRI-HORTICULTURAL SOCIETY OF INDIA, CALCUTTA

This garden is one of the best laid out gardens in India and its contribution towards the promotion and improvement of agriculture and horticulture in India has been accepted throughout the country. Though the Society was established on September 14, 1820, yet till 1872 it had no garden of permanent nature. It was in January, 1872 that the wandering spirit of the Society came to rest in its present garden at Alipore, Calcutta.

This informally designed garden with an area of 8.8 ha including 0.4 ha water area is about 10 km from Sealdah and Howrah railway stations and about 30 km from Calcutta International air port. The garden is primarily restricted to members only but for public interest and to promote horticulture, non members are also allowed to visit the garden on week days between 6 : 00 to 10 : 00 hrs and 13 : 00 to 17 : 00 hrs. The garden is visited annually by about 50,000 enthusiasts, educationists and plant lovers with no entry fee. The best time to visit the garden is from October to March.

The garden has one of the largest collections of tropical ornamental plants, fruit plants and also plants of economic interest. It has a very rich collection of different types of shrubs and other plants especially *Bougainvillea*, *Hibiscus*, Rose and *Plumeria*. Inside the premises there are two green houses, two glass houses, one conservatory and one laboratory with mist chamber and tissue culture facilities. Researches are being carried out on propagation, breeding and agrotechnique in the 'Birla Laboratory' inside the garden. One year 'Certificate in Horticulture' course and post graduate classes in Floriculture of the University of Calcutta are conducted here. Advice on gardening to members and non members are given free of charge.

Visitors can purchase all types of garden materials available at the sales counter of the Society inside the campus. The Society is interested in exchanging plant materials with other Botanic Gardens. It also publishes the quarterly '*Horticultural Bulletin*' and books on gardening.

The Library inside the garden has a very valuable collection of nearly 2100 books on Agriculture, Horticulture, Botany, Forestry etc. Some of these books are very old and rare. The Library also comprises of some rare collections of paintings of flowering plants, manuscripts and slides. In the Library there are also 6 research journals.

The garden organises the following exhibitions and Flower shows :  
(i) Chrysanthemum, Rose, Dahlia and Gladiolus show in January, (ii) Annual Flower show in February, (iii) Cactus show in May-June and (iv) Foliage show in September.

LOCATION : Calcutta, West Bengal.

POSTAL ADDRESS : The Agri-Horticultural Society of India, 1, Alipore Road, Calcutta 700 027. Telephone : 45-2613, Cable : AGRIHORT, Calcutta.

SOIL : Sandy loam.

GEOGRAPHIC AND CLIMATIC DATA : Lat. :  $22^{\circ}32'N$ , Long. :  $88^{\circ}20'E$ , Alt. : 6 m, Temp. :  $15^{\circ}$  to  $33^{\circ}C$  (Min. in Dec., Max. in May-Jun.), Rainfall : 1500 mm (Min. in Dec., Max. in Jul.-Aug.).

STATUS : Autonomous Body, governed by elected Council. Annual budget : Rs. 12.5 lakhs.

MANAGEMENT : Secretary, Scientific & Technical : 4, Others : 47.



## ASSEMBLY HOUSE GARDEN, CALCUTTA

In 1928 the foundation stone of the Assembly House was laid by Mr. Francis Stanley Jackson, the then Governor of Bengal. It covers a total area of about 7 ha including 6 ha garden campus. Located at the heart of the city of Calcutta it is within 500 m or less from Raj Bhavan, Akashvani Bhavan, Eden Gardens and High Court, about 2.0 km from Howrah railway station and 20 km from Calcutta International air port. Though entry is restricted inside but the gardeners and plant lovers of Calcutta are very well acquainted with this garden because of the 'Chrysanthemum and Flower show' held in the campus every year in the last week of December organised by Calcutta Flower Growers' Association and also due to its rich collection of potted ornamental plants which are frequently exhibited in some big Flower shows in the twin city Calcutta—Howrah. Gardening hours are from 6:00 to 11:00 and 14:00 to 17:00 hrs. Plant collection includes about 1000 perennials in 190 species consisting of *Adenantha pavonina* L., *Agathis brownii* (Lemaire) L. H. Bailey, *Alstonia scholaris* (L.) R. Br., *Amherstia nobilis* Wall., *Anacardium occidentale* L., *Araucaria bidwillii* Hook., *A. cookii* R. Br. ex D. Don, *A. cunninghamii* Ait., *Averrhoa carambola* L., *Bauhinia acuminata* L., *Brownea coccinea* Jacq., *Cassia biflora* L., *C. nodosa* Buch.-Ham., ex Roxb., *C. spectabilis* DC., *C. surattensis* Burm. f., *Cinnamomum camphora* T. Nees & Eber., *C. tamala* T. Nees, *C. zeylanicum* Bl., *Cochlospermum religiosum* (L.) Alston, *Couroupita guianensis* Aubl., *Cycas revoluta* Thunb., *C. rumphii* Miq., *Delonix regia* (Boj. ex Hook.) Raf., *Ficus elastica* Roxb., *F. krishnae* A. DC., *Grevillea robusta* A. Cunn., *Holarrhena antidysenterica* Wall., *Lagerstroemia speciosa* (L.) Pers., *Magnolia grandiflora* L., *M. pterocarpa* Roxb., *Melaleuca leucadendron* L., *Michelia champaca* L., *Millingtonia hortensis* L., *Mimusops elengi* L., *Petrea volubilis* L., *Phoenix sylvestris* Roxb., *Pinus roxburghii* Sargent, *Plumeria alba* L., *Polyalthia longifolia* (Sonn.) Thw. var. *pendula*, *Portlandia grandiflora* L., *Peltophorum pterocarpum* (DC.) Backer ex K. Heyne, *Pterocarpus santalinus* L., *Pterospermum acerifolium* Willd., *Pterygota alata* (Roxb.) R. Br. var. *irregularis*, (W. W. Smith) Deb & Basu, *Roystonea regia* (H. B. & K.) O. F. Cook, *Saraca asoka* (Roxb.) de Wilde, *Spathodea campanulata* Beauv., *Tabebuia pentaphylla* (L.) Hemsl., *T. rosea* (Bertol.) DC., *Terminalia arjuna* Wt. & Arn., *T. bellerica* (Gaertn.) Roxb. and others. In addition a large number of annuals are grown in beautifully laid out beds. It has an excellent collection of indoor and green house plants in the two green houses and one glass house. The Rose garden has a collection of about 250 varieties of roses. Other features include rockeries, fountains, statues etc.

LOCATION : Calcutta, West Bengal.

POSTAL ADDRESS : Deputy Secretary, Legislative Assembly, Assembly House, Calcutta 700 001. Telephone : 28-3193, 28-4512.

SOIL : Gangetic alluvial.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 22°32' N, *Long.* : 88°20' E,  
*Alt.* : 6 m, *Temp.* : 15° to 33°C (Min. in Dec.-Jan., Max. in Jun.-Jul.),  
*Rainfall* : 1032 mm (Min. in Dec.-Jan., Max. in Aug.-Sept.).

STATUS : Government of West Bengal.

MANAGEMENT : *Deputy Secretary, Caretaker* : 1, *Others* : 18.

## BIDHAN SISHU UDYAN, CALCUTTA

The foundation stone of Bidhan Sishu Udyan (Children's Park) was laid on November 14, 1968 (the day is celebrated as the 'Children's Day' to commemorate the birth anniversary of Pandit Jawaharlal Nehru, the first Prime Minister of India) and the Udyan was opened by the President of India on February 1, 1976. The main objective was to transform an area of about 8.6 ha including 1/3rd area covered by a lake into a children's paradise at Bidhan Nagar which is also the nearest railhead. The garden is named after late Dr. B. C. Roy, the former Chief Minister of West Bengal.

The garden has a unique collection of trees, shrubs, creepers, climbers and other decorative plants. Some of the collections are : *Areca catechu* L., *Cocos nucifera* L., *Roystonea regia* (H. B. & K.) O. F. Cook, *Cinnamomum zeylanicum* Bl., *C. tamala* Nees & Eberm., *Santalum album* L., *Ravenala madagascariensis* (J. F. Gmel.) Sonn., *Eucalyptus citriodora* Hook., *Anthocephalus chinensis* (Lamk.) A. Rich. ex Walp., *Delonix regia* (Boj. ex Hook.) Raf., *Callistemon linearis* DC., *Calliandra haematocephala* Hassk., *Mussaenda phillipica* A. Rich. and *Bougainvillea* sp. The garden has a nursery, a picnic spot, a circular water reservoir and several playing amenities for children. Statues of Gandhiji, Tagore, Vidyasagar and Dr. B. C. Roy can be seen here. In the building known as 'Bidhan Bhavan' near the entrance there is an auditorium, Library, a Kala Kendra and a Hobby Centre for painting. 'Kheal-Khusi'—a monthly journal for children and the *Annual Report* are published. The Library has a collection of about 15,000 books for children and adults.

Special activities performed are : (1) Teaching of recitation, dancing, swimming, archery and tabla; (2) Summer and winter camps for children from May 22 to May 28 and from December 22 to December 28, every year respectively; (3) A special programme for 7 days from July 1, every year in memory of Dr. B. C. Roy.

Since the 'Udyan' (garden) is meant for the children, entry of adults without permission is restricted. However, one guardian with one or more children is allowed to enter. Timings are from 6 : 30 to 9 : 00 hrs and 14 : 00 to 17 : 00 hrs. On Sunday afternoon (14 : 00 to 17 : 00 hrs) public are allowed. No fee is realised for entry.

LOCATION : Calcutta, West Bengal.

POSTAL ADDRESS : 1, Bidhan Sishu Sarani, Calcutta 700 054. Telephone : 37-8086.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 22°32'N, *Long.* : 88°20'E, *Alt.* : 6 m, *Temp.* : 15° to 33°C (Min. in Dec.-Jan., Max. in May-Jun.), *Rainfall* : 1500 mm (Min. in Dec., Max. in Jul.-Aug.).

**STATUS :** Autonomous Body, Dr. B. C. Roy Memorial Committee.

**MANAGEMENT :** *President*, *Vice President* : 2, *Secretary* : 1, *Others* : 28.

## DESHBANDHU PARK, CALCUTTA

The Deshbandhu Park in north Calcutta is one of the oldest parks with a rich collection of plants under the Calcutta Municipal Corporation. It is also a good propagation centre of tropical indoor plants. With an area of about 7.25 ha including 0.40 ha water area, the park is situated about 4 km from Sealdah railway station, 8 km from Howrah railhead and about 15 km from Calcutta International air port. It is named in memory of late Deshbandhu Chittaranjan Das, a great patriot and the first Mayor of Calcutta Corporation. A portion of the park measuring about 1.25 ha has been kept reserved for ladies and children only. The park is visited by about 2000 people daily from 5 : 00 to 22 : 00 hrs for playing and practising games, walking and recreation purposes. The tank is used by members of three Swimming Clubs controlling the swimming training for young children. There is a full size marble statue of Deshbandhu at the entrance.

It has a good collection of plants distributed in 400 species which includes over 5000 trees and shrubs, a large collection of roses, *Bougainvillea*, *Hibiscus*, *Plumeria*, *Callistemon*, *Calliandra*, *Chrysanthemum*, *Dahlia* etc. Trees belonging to species *Couroupita guianensis* Aubl., *Polyalthia longifolia* (Sonn.) Thw., *Cassia fistula* L., *Casuarina equisetifolia* J. R. & G. Forst., *Ceiba pentandra* (L.) Gaertn., *Cocos nucifera* L., *Delonix regia* (Boj. ex Hook.) Raf., *Peltophorum pterocarpum* (DC.) Backer ex K. Heyne etc. are occupying the major portion of the park.

In the Nursery thousands of saplings are grown for roadside plantation in the city of Calcutta every year.

**LOCATION :** Calcutta, West Bengal.

**POSTAL ADDRESS :** Executive Engineer (Parks & Squares), Calcutta Municipal Corporation, 5 S. N. Banerjee Road, Calcutta 700 013.

**Telephone :** 24-3471, 24-3472.

**SOIL :** Sandy loam.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 22°32' N, *Long.* : 88°20' E,  
*Alt.* : 6 m, *Temp.* : 15° to 33°C (Min. in Dec., Max. in May-Jun.),  
*Rainfall* : 1032 mm (Min. in Dec., Max. in Jul.-Aug.).

**STATUS :** Autonomous body, governed by elected Councillors of Calcutta Municipal Corporation (Parks & Squares).

**MANAGEMENT :** *Executive Engineer, Assistant Horticulturist* : 1, *Others* : 18.

## JATINDRA MOHAN PARK, CALCUTTA

The Jatindra Mohan Park, more popularly known as 'Tala Jheel Park' is located at Paikpara about 9 km from Howrah railway station and 14 km from Calcutta International air port. It comprises an area of nearly 3.0 ha with a lake of 0.6 ha having an island at the centre. The adjacent landmarks of this park are Tala pumping station and its underground water reservoir and a transmission centre of 'Aakashbani', Calcutta. The park is visited by thousands of visitors daily from morning to evening throughout the year. There is no entry fee, but one is not allowed to enter into the nursery, the aviary or the green house without permission of the authorities.

The nursery is exclusively used for raising seedlings or cuttings for avenue plantations, culture and cultivation of annual ornamentals, house plants, cacti and succulents for occasional requirements on special occasions or VIP visits in the city or for Flower shows organised by various agencies in the twin city Calcutta-Howrah. These are also raised for flower displays in different parks maintained by the Calcutta Municipal Corporation during the months of December-February. The park has its own Flower show and display in February, the hundreds of cultivars of *Dahlia* raised in the nursery are worth mentioning and visitors enjoy these in great admiration and splendour. The nursery also nurtures a wide range of diverse plant species which are uncommon in Gangetic plains like species of *Lycopodium*, *Selaginella*, *Adiantum*, *Asplenium*, *Platyserium*, *Tibouchina*, *Melastoma*, *Hyphaene* etc.

The park has a rich collection of trees, shrubs and creepers. Some of the species which are either uncommon in other places or attained gigantic growths with larger canopy or in some way or other beautifying the park are listed below :

Trees : *Adansonia digitata* L., *Araucaria cunninghamii* D. Don, *Barringtonia acutangula* (L.) Gaertn., *Brownea coccinea* Jacq., *Caesalpinia coriaria* (Jacq.) Willd., *Castanopsis indica* (Roxb.) A. DC., *Colvillea racemosa* Boj. ex Hook., *Couroupita guianensis* Aubl., *Crataeva nurvula* Buch.-Ham., *Grevillea robusta* A. Cunn. ex R. Br., *Jacaranda mimosifolia* D. Don, *Magnolia grandiflora* L., *Mesua ferrea* L., *Pinus roxburghii* Sar., *Samanea saman* (Jacq.) Merr., *Saraca asoca* (Roxb.) de Wilde, *Spathodea campanulata* Beauv., *Swietenia mahagoni* (L.) Jacq., *S. macrophylla* King, *Tabebuia chrysantha* (Jacq.) Nicholson etc.

Shrubs : *Adenium obesum* Roem. & Schult., *Brunfelsia hopeana* Benth., *Caesalpinia pulcherrima* (L.) Sw., *C. bonduc* (L.) Roxb., *C. cacalaco* H. & B., *Cassia alata* L., *Catesbaea spinosa* L., *Cordia sebestena* L., *Dombeya wallichii* Benth. & Hook.f., *Erythrina variegata* L., *Euphorbia leucocephala* L. f., *E. pulcherrima* Willd. ex Kloz., *Kopsia fruticosa* (Ker.) A. DC., *Leucaena leucocephala* (Lamk.) de Wit, *Mussaenda philippica* A. Rich., *Ochna jabotapita* L., *Pandanus odoratissimus* L. f., *Portlandia grandiflora* L., *Ravenia spectabilis* Griseb., *Solanum grandiflorum* Ruiz & Pav.

Creepers : *Antigonon leptopus* Hook. & Arn., *Aristolochia bracteolata* Lamk., *Artabotrys uncinatus* (Lam.) Merr., *Asparagus racemosus* Willd., *Cissus quadrangularis* L., *Clitoria ternatea* L., *Gmelina philippensis* Cham., *Hiptage benghalensis* (L.) Kurz., *Pothos scandens* L., *Pyrostegia venusta* (Ker-Gawl.) Miers., *Vernonia javanica* DC. etc.

In addition to this, the park maintains a good collection of cacti, succulents, ferns, palms, anthuriums and other house plants. The bonsai collection also attracts the visitors.

LOCATION : Calcutta, West Bengal.

POSTAL ADDRESS : Executive Engineer (Parks & Squares), Calcutta Municipal Corporation, 5, S. N. Banerjee Road, Calcutta 700 013.  
Telephone : 24-3471, 24-3472.

SOIL : Sandy loam.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 22°32' N, Long. : 88°20' E,  
Alt. : 6 m, Temp. : 15° to 33°C (Min. in Dec., Max. in May-Jun.),  
Rainfall: 1032 mm (Min. in Dec., Max. in Jul.-Aug.).

STATUS : Autonomous Body, governed by elected Councillors of Calcutta Municipal Corporation (Parks & Squares).

MANAGEMENT : Executive Engineer, Assistant Horticulturist : 1, Others : 8.

## JHEEL MEEL SAFARI PARK, CALCUTTA

This park was inaugurated on November 14, 1980 by the Chief Minister, West Bengal. It covers an area of about 16 ha and is located at the Salt Lake range (Bidhan Nagar) Calcutta within 1 km from the Yuba Bharati Krirangan (Salt Lake Stadium)—a playing arena of international reputation. The site is bounded by a 60.96 m metalled road for Metropolitan By-pass connecting Sech Bhavan and Belegkata at the entry side and Nal Ban Fishery at the opposite end. On an average it is visited daily by about 750 visitors and maximum visitors recorded in a day so far is 16000. Had there been adequate arrangements of conveyance by private and public enterprises upto the entry gate, the visitors would have been much more as this park has a unique collection of plants, animals and other amenities for children and adults.

The garden is open to public from 10:00 to 17:00 hrs from April to September and from 9:30 to 16:30 hrs from October to March with weekly closures on Friday and Monday. An entry fee of Re. 1.00 is charged per person except children in arms and handicapped persons. Separate entry tickets are there for ride on toy train and for entry into Snake Park enclosure.

Notable points inside the park are : Snake Park, Deer Park, Hillocks and Caves, Aviary, Toy Train, Lake, Shelters, Picnic sheds, Refreshments, Paved walkway, Aquarium, Bird Cage, Monkey Cage, Children's Park etc. The aquarium has 24 cubicles in all where Gold fish, Angel fish, Loach, Tetra, Red tailed black shark, Sword tail, Platy, Barb, Silver shark, Gourami, Neon tetra, Cichled, Common fish, Molly, Discuss, Koicarp, Red Fin Shark, Tiger shark etc. are kept. The Aviary has collection of ducks, pigeons, peacocks etc. The Bird cage is enriched with collection of Java sparrow, Love bird, Cocktaiel, Budge Rigars, Finch, Parakeet, Munia etc. The Deer Park is beautifully surrounded by *Polyalthia longifolia* (Sonn.) Thw. var. *pendula*. But among all the notable points children rush for a ride on toy train moving along a route of 1.3 km for 10 minutes. The train has a capacity of 140 persons per trip. Ticket is Re. 1.00 per head. The railway line throughout the route is bordered by *Polyalthia longifolia* (Sonn.) Thw. var. *pendulla*, *Casuarina equisetifolia* J. R. & G. Forst. and other plants. Two restaurants are there in the vicinity of Jheel Meel Toy train main station platform.

A total of about 10,000 plants have so far been raised and planted, some attaining a height of about 12 m. Plants inside the campus include *Acacia*



*auriculiformis* A. Curn., *Areca catechu* L., *Bauhinia purpurea* L., *Callistemon linearis* DC., *Cocos nucifera* L., *Delonix regia* (Boj. ex Hook.) Raf., *Eucalyptus citriodora* Hook., *Dalbergia sissoo* Roxb., *Erythrina* sp., *Hiptage benghalensis* (L.) Kurz., *Ficus* sp., *Kleinhovia hospita* L., *Mussaenda philippica* A. Rich., *Ravenala madagascariensis* (J. F. Gmel.) Sonn., *Pterospermum acerifolium* Willd., *Saraca asca* (Roxb.) de Wilde, *Tabebuia chrysantha* (Jacq.) Nichols., *Thespesia populnea* (L.) Soland. ex Correa, *Mimusops elengi* L., *Michelia champaca* L. and a number of other ornamental plants.

LOCATION : Calcutta, West Bengal.

POSTAL ADDRESS : Jheel Meel Safari Park, Salt Lake City, Calcutta 700 091.

SOIL : Poor sandy saline soil.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 22°32' N, *Long.* : 88°20' E,  
*Alt.* : 6 m, *Temp.* : 15° to 33°C (Min. in Dec.-Jan., Max. in May-Jun.),  
*Rainfall* : 1500 mm (Min. in Dec., Max. in Jul.-Aug.).

STATUS : Government of West Bengal, Calcutta Metropolitan Development Authority (CMDA).

MANAGEMENT : *Executive Engineer, Sub Divisional Officer* : 1, *Others* : 20 + Casual labourers.

## NATIONAL LIBRARY GARDEN, CALCUTTA

The famous Belvedere House, at Alipore, Calcutta is the present day National Library which is encircled by this garden. As far back as in the eighteen seventies, Sir Richard Temple, the then Lieutenant Governor of Bengal described Belvedere house as being "In the middle of the park, studded with groups of trees, its terrace overlooking a rich expanse of verdure, its ponds covered with lotus and water lilies, its gardens encircled with various trees . . ." Though the present garden was taken over from the Central Public Works Department and newly laid out in 1962-63, the above description still holds to some degree.

The informally designed garden occupies an area of 12 ha with 0.4 ha water area and is visited annually by about 10,000 enthusiasts, tourists, educationists and plant lovers with no entry fee. The garden is primarily restricted to the library members but to develop public interest non-members are also allowed to visit the garden between 8 : 00 and 17 : 00 hrs. The best time to visit the garden is from October to March when the colourful annuals, dahlias, chrysanthemums and roses are in full bloom.

Plant collection includes several species of flowering trees, shrubs, bulbous plants, bougainvilleas and a good number of varieties of *Canna*. Researches on breeding aspects are also being conducted here.

**LOCATION :** Calcutta, West Bengal.

**POSTAL ADDRESS :** National Library, Belvedere Road, Calcutta 700 027.  
*Telephone : 45-5381-87, Telex : Ca 7935.*

**SOIL :** Sandy loam.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 22°32' N, Long. : 88°20' E, Alt. : 6 m, Temp. : 15° to 33°C (Min. in Dec., Max. in May-Jun.), Rainfall : 1032 mm (Min. in Dec., Max. in Jul.-Aug.).*

**STATUS :** Government of India, Ministry of Education and Culture.  
*Annual budget : Rs. 8.0 lakhs.*

**MANAGEMENT :** *Director, Garden Superintendent : 1, Scientific & Technical : 1, Others : 33.*

## RAJ BHAVAN GARDEN, CALCUTTA

It was due to the initiative of Marquis Wellesley, the then Governor General of East India Company that the Raj Bhavan in its present campus of about 14 ha was established in 1803 based on an architectural design of one captain Watt at a cost of 1.78 lakh pounds. But it was due to the efforts of successive Governor Generals, Governors or their wives that the garden covering an area of about 10 ha has now a collection of a large number of trees, shrubs and other plants exceeding 10,000 in number. There are six impressive external gateways surrounding the enclosure and a number of decorative pathways spread with white gravels on the top adding beauty and security. The garden has a collection of wide varieties of flowering and ornamental plants including some uncommon and rare species like *Nipa fruticans* Thunb., the endangered aquatic palm. Other collections include Avocado, Bougainvillea, *Bauhinia acuminata* L., *Calliandra haematocephala* Hassk., *Cassia fistula* L., *C. nodosa* Buch.-Ham. ex Roxb., *C. renigera* Wall., *Chorisia speciosa* St. Hil, *Cochlospermum religiosum* (L.) Als., *Cocos nucifera* L., *Couroupita guianensis* Aubl., *Jacaranda mimosifolia* D. Don, *Mussaenda philippica* A. Rich, *Polyalthia longifolia* (Sonn.) Thw. var. *pendula*, *Putranjiva roxburghii* Wall., *Petrea volubilis* L., *Plumeria alba* L., *Ravenala madagascariensis* (J. F. Gmel.) Sonn., *Tabebuia chrysantha* Nichols, *Terminalia arjuna* Wt. & Arn. and others. Every year seasonal flowers come up in the herbaceous borders and in the well laid out beds. The lawns are beautifully maintained. A large glass house in the southeast corner is a delightful spot and contains collection of exotic plants, orchids, cacti and succulents. In the southern portion, opposite to the private entrance two rose gardens exist with a collection of over 200 varieties. In addition a few other rose beds can be seen in other vantage points. Other features include lily pool, rustic bridge in green house, raised mound and swimming pool. Although entry of public is completely prohibited but the place is regularly visited by dignitaries and invitees. Apart from maintenance other activities of the garden include arranging of at least 35 flower vases daily for decoration, beautification and distribution. Special quality bouquets, wreaths are made for VIP's and State guests and on ceremonial occasions. Since Raj Bhavan is a centre frequently visited by foreign guests, dignitaries, VIP's throughout the year, the garden section has to remain constantly alert to keep the campus in a presentable manner by arranging potted plants both in colour and foliage. Garden of the Flag Staff House (Governor's resort) at Barrackpore is also maintained by Superintendent, Governor Estate. This place has an area of 5 ha devoted to the cultivation of rose, annuals and vegetables. It also supplies partly flowers and vegetables to the Governor's House in Calcutta.

**LOCATION :** Calcutta, West Bengal.

**POSTAL ADDRESS :** Garden Superintendent, Raj Bhavan, Calcutta 700 062.  
*Telephone :* 20-1641 (extn. 94).

**SOIL :** Gangetic alluvial.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* 22°32' N, *Long.* : 88°20' E, *Alt.* :  
6 m, *Temp.* : 15° to 33°C (Min. in Dec.-Jan., Max. in Jun.-Jul.), *Rainfall* :  
1032 mm (Min. in Dec.-Jan., Max. in Jul.-Aug.).

**STATUS :** Government of West Bengal.

**MANAGEMENT :** *Garden Superintendent, Others : 70.*

## TOLLYGUNGE CLUB GARDEN, CALCUTTA

In the southern suburbs of Calcutta about 8 km from the city centre and adjacent to Tollygunge Metro railway station, the Club with its garden compound covering about 40 ha of land is admired by every one for the excellent green canopies. 'The extensive ground was originally the site of indigo plantation laid out in 1781 by the Johnson family known to be pioneers of the planting industry in India. Later the grounds were to become a Royal Park at the heart of a princely estate established by the exiled family of Tipu Sultan, the deposed ruler of Mysore—and the house which the Johnson had built as their home became the Garden House of the new Mysore Estate. In 1895 the entire property was acquired from the Mysore family by the Tollygunge Club Limited and the spacious and lovely old Johnson House is, today the Tollygunge Club House'

The Club ground, a beautiful natural surrounding, has a collection of some beautiful flowering and ornamental plants which include among others as recorded : *Acacia auriculiformis* A. Cunn., *Adansonia digitata* L., *Adenantha pavonina* L., *Albizia lebbek* (L.) Benth., *A. richardiana* King & Prain, *Alstonia scholaris* (L.) R. Br., *Amherstia nobilis* Wall., *Anthocephalus chinensis* (Lamk.) A. Rich. ex Walp., *Bauhinia acuminata* L., *Bixa orellana* L., *Brownea coccinea* Jacq., *Caesalpinia cacalaco* H. & B., *C. coriaria* Willd., *Callistemon linearis* DC., *Calophyllum inophyllum* L., *Cassia grandis* L.f., *C. renigera* Wall., *Colvillea racemosa* Boj., *Couroupita guianensis* Aubl., *Dalbergia lanceolaria* L.f., *Eucalyptus citriodora* Hook., *Ficus elastica* Roxb., *Grevillea robusta* A. Cunn. ex R. Br., *Guaiacum officinale* L., *Haematoxylon campechianum* L., *Holarrhena antidysenterica* (L.) Wall. ex DC., *Jacaranda mimosifolia* D. Don, *Melaleuca leucadendron* L., *Mesua ferrea* L., *Michelia champaca* L., *Millingtonia hortensis* L.f., *Mimusops elengi* L. var. *variegata*, *Muntingia calabura* L., *Parmentiera cereifera* Seem, *Pterospermum acerifolium* Willd., *Saraca asoca* (Roxb.) de Wilde, *Spathodea campanulata* Beauv. and several other ornamental trees and shrubs. Besides collections as above, cannas in beds form an impressive display for the garden.

The Club provides a range of facilities rarely found in any one of its kind. Though it is meant primarily for the members, their children and guests but tourists are also welcome. Members are entitled to enjoy any or all of the following : Golf, Tennis, Billiards, Swimming, Riding, Bar and catering, Squash, Badminton etc. There are Golf and Tennis tournaments throughout the year. Wills Trophy is staged in November each year. The Club also sponsors Horse Shows, Gymkhana sports, swimming, shooting competitions and exhibitions. It is usually open

from 5 : 30 to 22 : 00 hrs primarily for members. The Club has published a book on *The trees and shrubs of Tollygunge Club (1969)* in addition to *Annual Year Book*.

LOCATION : Calcutta, West Bengal.

POSTAL ADDRESS : Tollygunge Club Limited, 120 Desapran Sasmal Road, Calcutta 700 033. Telephone : 46-3141, 41-0616, 46-1922.

SOIL : Sandy loam.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 22° 30' N, *Long.* : 88° 20' E, *Alt.* : 6.5 m, *Temp.* : 15° to 33°C (Min. in Dec.-Jan., Max. in May-Jun.), *Rainfall* : 1032 mm (Min. in Dec., Max. in Jul.-Aug.).

STATUS : Private, controlled by the Management Committee.

MANAGEMENT : *Managing Member*, *Others* : 20.

## VICTORIA MEMORIAL GARDEN, CALCUTTA

Victoria Memorial in memory of Queen Victoria (1837-1901) located at the heart of the city of Calcutta has been considered as a well known spot of tourists and city dwellers since the decades past. The surrounding beautiful garden of western design was established in 1906 covering an area of over 22 ha including about 1.6 ha water surface in cemented reservoirs. The garden with all its features in the form of lawns, paths and walks covered with gravels, trees, canna beds, topiaries, annuals etc. are well laid out. It is open to public from 4 : 45 to 19 : 30 hrs in summer and 5 : 00 to 19 : 00 hrs in winter without any entry fee. Admission to Victoria Memorial, the principal monument inside the garden is, however subjected to a token entry fee of Re. 1.00 per adult ; Rs. 0.50 for children under 12 yrs, school students, Jawans in uniform and handicapped persons. No entry fee is charged for organised groups of school children. The garden can be seen in its best form of display during winter months and is visited by about 36.5 million visitors annually. Recent night illumination of the building and surroundings are attracting the visitors at a steady stream.

Plants in cultivation include about 1000 trees in 125 species excluding a large number of shrubs and other ornamental plants. Some of the notable collections are *Albizia odoratissima* Benth., *A. richardiana* King & Prain, *Alstonia macrophylla* Wall., *Bauhinia variegata* L., *Caesalpinia coriaria* Willd., *Cassia grandis* L.f., *Chorisia speciosa* St. Hill., *Couroupita guianensis* Aubl., *Dalbergia lanceolaria* L.f., *Delonix regia* (Boj. ex Hook.) Raf., *Eucalyptus teretecornis* Sm., *Holarrhena antidysenterica* (L.) Wall. ex DC. *Jacaranda mimosifolia* D. Don, *Parkia biglandulosa* Wt. & Arn., *Pterygota alata* (Roxb.) R. Br., *Roystonea regia* (H.B. & K.) O.F. Cook, *Saraca asoca* (Roxb.) de Wilde, *Spathodea campanulata* Beauv., *Sterculia foetida* L., *Tabebuia rosea* DC., *Terminalia bellerica* (Gaertn.) Roxb., *T. catappa* L., *T. chebula* Retz., *Erythrina indica* Lam., *Pterygota alata* (Roxb.) R. Br. var. *irregularis* (W. W. Smith) Deb & Basu, *Polyalthia longifolia* (Sonn.) Thw. var. *pendula*, *Salix babylonica* L., *Trema orientalis* Blume, *Elaeis guinensis* Jacq., *Adenantha pavonina* L., *Chukrasia tabularis* A. Juss. etc.

The Victoria Memorial Hall, a symmetrical construction of white marble containing many historic life size portraits, paintings and statues is the prime attraction of visitors of the place. There are 40 publications on museum objects besides the *Annual Reports*.

LOCATION : Calcutta, West Bengal.

POSTAL ADDRESS : The Victoria Memorial Garden, 1, Queen's Way,  
Calcutta 700 073. Telephone : 44-5154.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 22°32' N, Long. : 88°20' E,  
Alt. : 6 m, Temp. : 15° to 33°C (Min. in Dec.-Jan., Max. in May-Jun.),  
Rainfall : 1500 mm (Min. in Dec., Max. in Jul.-Aug.).

STATUS : Autonomous Body. Annual budget : Rs. 6.50 lakhs.

MANAGEMENT : Secretary & Curator, Scientific & Technical : 1 (Caretaker),  
Others : 28.



## **BOTANIC GARDEN, DARJEELING GOVERNMENT COLLEGE, DARJEELING**

Established alongwith the establishment of the college in 1948, the Botanic Garden attached to this institute covers an area of about 3.0 ha. It has mainly been founded to impart training to the students and researchers of botany by conserving and maintaining plants of the region and growing various plants of horticultural and botanical interests.

The College alongwith the garden is very near to Darjeeling railway station being only about 3 km away and is visited by a large number of students, scholars, scientists particularly during March-May and September-November during college hours from 10 : 00 to 17 : 00 hrs.

The plant wealth includes more than 100 species of subtropical and temperate Himalayas belonging to the families Acanthaceae, Betulaceae, Rosaceae, Ericaceae, Saxifragaceae, Solanaceae etc., and a good number of foliage plants. Rare and endangered species in cultivation include *Balanophora* sp., *Circaea alpina* L., *Codonopsis affinis* Hk.f. & T., *Dicentra thalictrifolia* Hk. f. & T., *Daphne cannabina* Wall., *Gentiana capitata* Ham., *Paris polyphylla* Sm., *Rubus senchalensis* Hara, *Thunbergia lutea* T. Anders. etc. A glass house (10 m × 10 m) is under consideration for construction. Researches are being carried out in plant taxonomy, plant geography and ecology. The garden is interested in exchanging seeds and plants with other gardens. The Library has more than 2000 books and journals.

**LOCATION :** State of West Bengal, Dist. : Darjeeling.

**POSTAL ADDRESS :** Department of Botany, Darjeeling Government College, Darjeeling 734 101. *Telephone* : 2019.

**SOIL :** Clayey and moist.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 26°31' N, *Long.* : 87° 59' E, *Alt.* : (msl) 2050 m, *Temp.* : Below 0° to 24°C (Min. in Dec.-Jan., Max. in Jun. to Aug.), *Rainfall* : 4000 mm (Min. Nov.-Feb., Max. in Jun.-Oct.).

**STATUS :** Government of West Bengal, Department of Education, Department of Botany. *Annual budget* : Rs. 25,000.

**MANAGEMENT :** *Professor-in-Charge of Botany, Scientific & Technical* : 19 (including teachers), *Others* : 2.

## **PADMAJA NAIDU HIMALAYAN ZOOLOGICAL PARK, DARJEELING**

This Park was established in 1958 but formed into an autonomous society on January 14, 1972. Though this is a Zoological park much attention is devoted for development of botanical aspects within the campus, especially conservation of flora of the Darjeeling Himalayas. Chief objective of the institute is however, public exhibition, conservation of nature and natural resources, research on habitat, biology, behaviour etc. of some endangered species. Nearest railhead is Darjeeling.

Informally designed the garden covers an area of about 48.3 ha and contains a cross-section of the Himalayan forest cover which is maintained in pristine glory, although some exotic flora have been growing in the park here and there without disturbing the natural vegetation. Exotics are not encouraged in the majestic sylvan setting against the backdrop of the mighty Kunchanjungha. The ridge of the Jawahar Parbat (Birch Hill) encompasses the different units of the park, mostly located in the hills and side hills without disturbing the natural harmony. Lebong park, a detached unit, is located at Lebong and consists of patches of forests.

The garden is open from 8 : 00 to 16 : 30 hrs everyday with an entry fee of Rs. 0.50 per head on Tuesdays and Re. 1.00 on other days of the week. Greatest floral display is exhibited during April-May and October-November (spring and autumn). The site is annually visited by about 1,30,000 visitors.

Work on floristic survey is in progress. Endangered species like birch, *Rhododendron*, tree fern etc. are already in cultivation. Though at present no field station is under its control but establishment of one is under contemplation at Jorpokhri where research programmes on biology, habitat, breeding etc. will be studied in detail.

Facilities are provided to groups of students of local as well as outstation schools and colleges led by their teachers who are given entry either at full or at 50% concession in the park. They are shown around the park with guide demonstration and taken along the nature's trail. Film shows on wild life are organised from time to time. The garden participates in Flower exhibitions organised locally. The Library contains a good number of books on various subjects like wild life, ecology etc. *Annual Report* is published.

**LOCATION :** Darjeeling, West Bengal.

**POSTAL ADDRESS :** Jawahar Parbat (Birch Hill), P.O. & Dist. : Darjeeling,  
Darjeeling 734 101. *Telephone : 2430.*

**SOIL :** Clayey.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 26°35' N, Long. : 87°59' E, Alt. : 2130 m, Temp. : 0° to 24°C (Min. in Dec.-Jan., Max. in Jul.-Aug.), Rainfall : 1720 mm (Min. in Dec., Max. in Jun.).*

**STATUS :** Autonomous Society under Department of Environment, Government of West Bengal with financial support by the Government of India, Ministry of Environment & Forests. *Annual budget : Rs. 7 lakhs.*

**MANAGEMENT :** Governing Body (constituted), *Director/Secretary, Deputy Director : 2, Assistant Director-cum-Veterinary Officer : 1, Others : 39.*

**BOTANICAL GARDEN, NATIONAL BUREAU OF PLANT  
GENETIC RESOURCES (NBPGR),  
HORTICULTURE SECTION, DELHI**

The garden established in 1976, occupies an area of 2.1 ha in a 41.7 ha Research Farm of the institute and is located in Issapur village, Delhi, 48 km away from Delhi and New Delhi railheads. It is in a developing stage and aims at introduction of ornamental plants and maintenance of germplasm collections of horticultural crops from exotic and indigenous sources.

**LOCATION :** Issapur village, Najafgarh Block, Delhi, State & Dist. : Delhi.

**POSTAL ADDRESS :** Botanic Garden, National Bureau of Plant Genetic Resources, Issapur village, Najafgarh Block, New Delhi 110 043.

**SOIL :** Clay loam.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 28°25' N, Long. : 76°12' E, Alt. : 228 m, Temp. : 4° to 45°C (Min. in Jan., Max. in Jun.), Rainfall : 650 mm (Min. in May, Max. in Jul.-Aug.).*

**STATUS :** Autonomous Body controlled by NBPGR (Pusa), New Delhi.  
*Annual budget :* No separate budget ; garden forms a part of the experimental fields of the Bureau.

**MANAGEMENT :** *Director, Scientific & Technical : 4, Others : 5.*

## JUBILEE PARK, JAMSHEDPUR

The Jubilee Park is an English type garden also having a small formal Mughal Garden with cascades and fountains, inaugurated by Pandit Jawaharlal Nehru in 1958 and dedicated to the public of the steel city of Jamshedpur by the Tata Iron and Steel Co. Ltd. (TISCO) in commemoration of Golden Jubilee of the Tata Iron & Steel Co.

It is not a botanical garden in the real sense but claims to have one of the richest collections of trees, shrubs, roses, dahlias and other flowering plants of this region.

With an area of 83.3 ha with 20.8 ha of water surface and only a few km away from the railway station of Jamshedpur this garden is visited annually by over 8 lakh visitors, especially on Tuesdays, Saturdays and Sundays when fountains and lights are on and other days with no entry fee from 5 : 00 to 22 : 00 hrs.

It has a collection of 7,800 trees and shrubs including some interesting specimens viz. *Tabebuia argentea* Britton, *T. chrysantha* (Jacq.) Nichols., *T. rosea* DC., *T. pentaphylla* Hemsl., *T. spectabilis* Nichols., *T. pallida* Miers, *Cassia javanica* L., *C. renigera* Wall., *C. nodosa* Buch.-Ham. ex Roxb., *C. marginata* Roxb., *C. moschata* H. B. & K., *C. bacillaris* L.f., *C. alata* L., *C. spectabilis* DC., *Cordia sebestena* L., *Adansonia digitata* L., *Salix babylonica* L., *Peltophorum africanum* Sond., *Bauhinia triandra* Roxb., *B. variegata* L. var. *alba*, *B. purpurea* L., *B. galpinii* N.E. Br., *B. blakeana* Dunn., *Pterocarpus santalinus* L. and a banyan tree planted by Late Pandit Jawaharlal Nehru in 1958. Besides, white *Gliricidia*, *Erythrina parcellii* Hort. (variegated), hybrid *Plumeria*, hybrid *Cassia* and a number of variegated cultivars and hybrid shrubs are available in the garden. The species totals to 1,200 including among others beautiful roses, and chrysanthemums of which several new varieties have been developed here. A collection of day blooming water lilies exists in five colonies. There is one glass house inside and the statue of the founder, Sir J. N. Tata the main focal point overlooking the Mughal Garden. As the main objective of the institute is to provide recreation to the public, the aspect of research is only focussed to the development of some new varieties of ornamentals. A number of cultivars of chrysanthemums, dahlias, roses, bougainvilleas, gerberas have been developed. The Library has a collection of 24 books, 12 research journals and 4 reprints.

LOCATION : Jamshedpur, Dist. : Singhbhum, Bihar.

POSTAL ADDRESS : Jubilee Park Nursery, Jamshedpur 831 001. *Telephone* : 24247, *Telex* : 026-201 (Parks & Garden Department), *Cable* : IRONCO, Jamshedpur.

SOIL : Laterite loam with rocky strata.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 22°50'N, *Long.* : 86°10'E, *Alt.* : 160 m, *Temp.* : 8.5° to 44.5°C (Min. in Jan., Max. in Jun.), *Rainfall* : 1250 mm (Min in Jan., Max. in Aug.).

STATUS : Private, controlled by Tata Iron and Steel Co. Ltd. *Annual budget* : Rs. 12 lakhs.

MANAGEMENT : *Superintendent* (Parks & Gardens, TISCO), *Assistant Superintendent* : 1, *Scientific & Technical* : 3, *Others* : 58.

## TELCO GARDEN AND NURSERY, JAMSHEDPUR

Established in 1963, this garden and nursery located near Tata Nagar railway station, occupies an area of 25 ha with 7 ha of water surface. Informally designed it is open to visitors from 7 : 00 to 16 : 00 hrs with a break at 12 : 00 to 13 : 00 hrs. Annually visited by about 60,000 visitors mostly during winter which is the best season.

Chief objectives of the institute are (a) to bioaesthetically develop the township and neighbourhood, (b) to encourage people for gardening and (c) to assist students or interested persons in learning life sciences. It has initiated cultivation of 1.95 lakhs of trees and shrubs in 710 species and 1820 varieties. There is one green house and one glass house. The garden distributes free of cost annually 5000 fruit plants and around 3000 roadside or avenue trees to rural areas through Rural Development Department disseminating technical knowhow to rural people for gardening and beautification of their neighbourhood. Two reports are published and thirty books are in the Library collections.

LOCATION : Jamshedpur, Dist. : Singhbhum, Bihar.

POSTAL ADDRESS : Tata Engineering & Locomotive Company (TELCO),  
Jamshedpur 831 010, Dist. : Singhbhum, Bihar.

SOIL : Sandy (mica mixed).

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 22°50' N, *Long.* : 86°10' E, *Alt.* : 129 m, *Temp.* : 19.2° to 33.4°C (Min. in Dec., Max. in May), *Rainfall* : 1044 mm (Min. in Dec., Max. in Aug.).

STATUS : Private (Industrial Sector)

MANAGEMENT : *Divisional Manager* (Construction), *Scientific & Technical* : 9,  
*Others* : 105.

## **BOTANIC GARDEN, CENTRAL ARID ZONE RESEARCH INSTITUTE, JODHPUR**

The garden with an area of 22.4 ha with about 8 ha water surface was established in 1963 with the object of evaluation of plants suitable for arid and semi-arid conditions under different course of water management. The site, near Jodhpur railway station is open from 8 : 00 to 17 : 00 hrs and draws visitors mostly during monsoon.

Inside the campus, there are about 850 species of angiosperms and a green house for keeping indoor plants. It has 6000 specimens in the Herbarium, about 3000 botanical books and journals in the Library. Flower show and exhibitions are arranged annually. *Annual progress report of CAZRI, Jodhpur* is published.

**LOCATION :** Dist. : Jodhpur, Rajasthan.

**POSTAL ADDRESS :** Central Arid Zone Research Station (I.C.A.R.), Jodhpur 342 003, Rajasthan. *Telephone : 26934, Cable : SUKHSCHETRA, Jodhpur.*

**SOIL :** Loamy sand.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 26° 18' N, Long. : 73° 04' E, Alt. : 200 m, Temp. : 7° to 42°C (Min. in Jan., Max. in May), Rainfall : 350 mm.*

**STATUS :** Government of India organisation under control of Plant Ecology Section, CAZRI. *Annual budget : Rs. 23,000.*

**MANAGEMENT :** *Director, Scientific & Technical : 3, Others : 4 + labourers.*



## **GANGA NIWAS GARDEN, JODHPUR**

The Ganga Niwas Garden was founded by Maharaja Ganga Singhji in 1912 on the occasion of the visit of Lord Hardinge to provide public amenity. On the left of this garden stands the marble statue of the Doonger Singhji, the illustrious ruler of Bikaner. The Ganga Niwas Garden was renovated in 1935. The area is 20 ha and connected by rail and road. It is open to public from 5 : 00 to 11 : 00 hrs from March 15 to September 30 and 6 : 00 to 10 : 00 hrs from October 1 to March 14, free of cost and is visited by about 80,000 visitors annually.

The garden has a collection of about 110 trees and 300 shrubs of botanical and horticultural interest.

**LOCATION :** Collectorate, Dist. : Bikaner, Rajasthan.

**POSTAL ADDRESS :** Inspector of Gardens, Garden Department, Bikaner,  
Dist. : Bikaner, Rajasthan.

**SOIL :** Sandy.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 28°01' N, Long. : 73°22' E,*  
*Alt. : 152 to 275 m, Temp. : 2° to 47°C, Rainfall : 247 mm.*

**STATUS :** A State Government establishment controlled by Superintendent,  
Government Gardens, Jodhpur. *Annual budget : Rs. 6,00,000.*

**MANAGEMENT :** *Superintendent of Gardens (Head), Inspector of Garden : 1,*  
*Others : 65.*

## MANDORE GARDEN, JODHPUR

A little earlier the ancient site of Mandore situated on the bank of Nagadari stream, 8 km north of Jodhpur was developed as a public garden. It was known as 'Moti Singhji ka Bagh' at the turn of the century.

This place named after Mandave Rishi was till 1459, the capital of numerous small principalities. With the traces of Mandore Fort built in the 4th century after the Buddhist style of architecture and the presence of Panch Kund (five reservoirs), Jain and Vaishnava temples and Muslim mosques, Mandore became a spot of historical and antiquarian interest. For three centuries, it developed as cenotaphs of the Rathore rulers of Marwar (1562 to 1873) and had orchard and shady trees like mangoes, jamun and mulberry. The construction of massive and imposing Ajeet Pol by Maharaja Abhay Singh and the Hall of Heroes containing sixteen colossal figures of deities and mortals hewn out of a natural rock attracted people for socio-religious purposes. The building of 'Zenana Mahal' with fountains, canals, swimming pools gave Mandore a new look and image. The perennial supply of water from wells, kunds in which flew rain water of Nagadari gave a new concept and the terraced gardens of Mandore of the Mughal style were laid out. Its healthy environment attracted visitors for recreation and was therefore remodelled in 1928-29 by an English Landscape Engineer named Cavena. After the execution of the master plan for the development of Mandore garden it has become a centre of great tourist traffic during the last ten years.

Trees like mango, fig, tamarind, guava, mulberry and jamun were planted in an area of 12.5 ha. Features include the rose garden on left, a canal developing into a Kisthti garden on the right, 7-8 well defined Terrace gardens, the cactus house, the Japanese gardens, the green house and the Zenana garden. The canal throughout is dotted with numerous fountains which apparently changes shapes when flood-lit with coloured lights. The jet fountain is the most powerful and shoots upto the height of nearly 25 m and is the centre of attraction of the garden. The garden has two water falls—one natural waterfall from Nagkund and the other one marble waterfall, both ending in main canal after passing through Terrace garden.

The entire garden is profusely illuminated by flood lights of different colours and the building, the fountains, the tall trees, the walls and the Terrace gardens are all brightly and brilliantly illuminated.

It is open to public from 5 : 00 to 11 : 00 hrs from March 15 to September 15 and 6 : 00 to 10 : 00 hrs from October 1 to March 14, free of cost and is visited by about 1,20,000 visitors annually especially during winter and summer. Nearest railhead is Mandore.

The garden has a collection of about 200 trees and 1000 shrubs of botanical and horticultural interests.

**LOCATION :** Mandore, Dist. : Jodhpur, Rajasthan.

**POSTAL ADDRESS :** Superintendent, Government Garden, Jodhpur, Dist. : Jodhpur, Rajasthan. *Telephone* : 25752.

**SOIL :** Sandy.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 26° 18' N, *Long.* : 73° 01' E, *Alt.* : 219 m, *Temp.* : 2° to 49°C, *Rainfall* : 300 mm.

**STATUS :** A State Government establishment controlled by Superintendent, Government Gardens, Jodhpur. *Annual budget* : Rs. 7,50,000.

**MANAGEMENT :** *Superintendent*, *Others* : 100.

## NEHRU PARK, JODHPUR

Established in 1966 this 2 ha ornamental garden at Jodhpur, the guarded city with a spectacular fort well connected by air, rail and road, is open to public from 5 : 00 to 11 : 00 hrs (March 15 to September 30) and from 6 : 00 to 10 : 00 hrs (from October 1 to March 14) free of cost and is visited by about 10,000 visitors annually especially during February and March. Nearest railhead is Jodhpur.

The garden has a collection of about 60 trees and 500 shrubs of botanical and horticultural interests. This includes *Callistemon citrinus* (Curt.) Skeels, *Erythrina variegata* L., *Jacaranda mimosifolia* D. Don, *Grevillea robusta* A. Cunn., *Peltophorum pterocarpum* (DC.) Baker and a number of other ornamental plants.

A statue of Late Sri Jawaharlal Nehru, first Prime Minister of India is located at a vantage point of the garden.

**LOCATION :** Sardarpara, Dist. : Jodhpur, Rajasthan.

**POSTAL ADDRESS :** Superintendent, Government Gardens, Jodhpur, Dist. : Jodhpur, Rajasthan. Telephone : 25752.

**SOIL :** Sandy.

**GEOGRAPHIC AND CLIMATIC DATA :** Lat. : 26° 18' N, Long. : 73° 01' E, Alt. : 219 m, Temp. : 6° to 42°C, Rainfall : 300 mm.

**STATUS :** A State Government establishment controlled by Superintendent, Government Gardens, Jodhpur.

**MANAGEMENT :** Superintendent, Scientific & Technical : 1, Others : 20.

## UMAID GARDEN, JODHPUR

The Willingdon Garden, now named as Umaid Udyan after Independence was developed on a reclaimed land in 1933. The scheme of constructing a public garden was approved by His Highness the Maharaja Sahib Bahadur and His Excellency the Viceroy was graciously pleased to agree to his name being associated with the same. The work of construction of the Willingdon Gardens was started during the year 1933-34. The total expenditure on works connected with this garden during the year was Rs.1,02,248.00.

The Willingdon Gardens were opened by His Excellency Lord Willingdon on March 17, 1936. In his speech he said "These Gardens will offer recreation, as your highness so truly remarks, both for the minds and bodies of generations of Jodhpur townsfolk ; they will be a haunt of beauty and place where the toiling workers may come in the evenings and obtain rest and renewed strength for the morrow"

This park covering an area of 15 ha is located outside the Mertie Gate and to its south runs the Kutchery Road and its eastern to touch the High Court premises. The park has a pucca stone compound with six gates-each served by five metalled roads. Laid out on most modern lines, this park has extensive lawns and well trimmed plants and hedges. Summer evenings are crowded, as people from congested localities rush up in order to get rid of day long drudgery. During day hours the zoo, summer public Library and Sardar Museum are the main attractions.

It is open to public from 5 : 00 to 11 : 00 hrs during March 15 to September 30 and from 6 : 00 to 10 : 00 hrs from October 1 to March 14, free of cost and is visited by about 1,00,000 visitors annually.

The garden has a collection of about 150 trees and 700 shrubs of botanical and horticultural interest.

**LOCATION :** High Court Road, Dist. : Jodhpur, Rajasthan.

**POSTAL ADDRESS :** Superintendent, Government Gardens, Jodhpur, Dist. : Jodhpur, Rajasthan. *Telephone : 25752.*

**SOIL :** Sandy.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 26° 13' N, *Long.* : 73° 01' E,  
*Alt.* : 219 m, *Temp.* : 2° to 49°C, *Rainfall* : 300 mm.

STATUS : A State Government establishment controlled by Superintendent,  
Government Gardens, Jodhpur. *Annual budget* : Rs. 6,00,000.

MANAGEMENT : *Superintendent*, *Others* : 105.

## **GARDENS OF THE KASHMIR VALLEYS : SHALIMAR GARDENS, SRINAGAR**

This formal garden was laid out by the Mughals in the 17th century. In 1619 Jahangir laid a garden on the edge of the Dal Lake in its northeast corner and called it Shalimar which means 'the abode of love'

This garden, the most choicest tourist spot in the Kashmir Valley extends to an area of 12 ha and connected with Dal Lake by an artificial canal.

Several beautiful features viz. reservoirs, fountains, terraces, black stone pavilion, snow covered Mahadeb mountains at the background, pavilions and lastly the perfection of the stately Chinar (*Platanus orientalis* L.) trees providing shades to the pathways inside. The garden is illuminated on festive occasions.

**LOCATION :** Srinagar, Kashmir.

**POSTAL ADDRESS :** Shalimar Garden, Srinagar 190 001.

**SOIL :** Forest and hill soils.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 34° 06' N, *Long.* : 74° 51' E,  
*Alt.* : 500 m, *Temp.* : 1.1° to 28.3°C (Min. in Jan., Max. in May), *Rainfall* :  
664 mm (Min. in Nov., Max. in Mar.).

## **NISHAT BAGH, SRINAGAR**

Nishat Bagh or 'Pleasure Garden' about 3 km north to Shalimar, was laid out by Emperor Shahjahan's brother-in-law. It covers an area of 18.4 ha surrounded by high brick wall. The central tanks are connected by canals.

Interesting features include colourful annual beds, terraces, fountains, reservoirs, pavilions, lakes etc. The garden is illuminated in the evening. Chinar trees shade the paths and walks.

**LOCATION :** Srinagar, Kashmir.

**POSTAL ADDRESS :** Nishat Bagh, Srinagar, Kashmir.

**SOIL :** Forest and hill soils.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 34° 06' N, Long. : 74° 51' E, Alt. : 500 m, Temp. : 1.1° to 28.3°C (Min. in Jan., Max. in May), Rainfall : 664 mm (Min. in Nov., Max. in Mar.).*



## **CHASHMA-E-SHAHI GARDEN, SRINAGAR**

It is the smallest of the Mughal Gardens at the Kashmir Valley but built during the reign of Emperor Shahjahan. The 0.4 ha walled up garden is located at the foot of a mountain, about 10 km from Srinagar. The features include two baradaris, water-course, tanks, fountains, terraces and pavilions. The main attraction is the famous spring providing pure, clear, cold water which is reputed to increase appetite. A favourite tourist spot during spring and summer.

Other gardens of Kashmir valleys include Verinag, Achabal, Bijbehara which also draw visitors in the spring and summer.

**LOCATION :** Srinagar, Kashmir.

**POSTAL ADDRESS :** Chashma-e-shahi Garden, Srinagar.

**SOIL :** Forest and hill soils.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 34°06'N, Long. : 74°51'E, Alt. : 500 m, Temp. : 1.1° to 28.3°C (Min. in Jan., Max. in May), Rainfall : 664 mm (Min. in Nov., Max. in Mar.).*

## **BOTANIC GARDEN, CENTRAL DRUG RESEARCH INSTITUTE, LUCKNOW**

This garden was established in 1951 in the Chattar Manzil Palace Lucknow in an area of about 2 ha. Lucknow is the nearest railhead. The chief objective of the institute is to develop new or better drugs from plants and through synthesis of compounds.

The garden is open from 10 : 00 to 17 : 15 hrs with no restriction in entry. Best season to visit is December to February. It has one green house and a number of plants of medicinal and botanical interests. The institute carries on researches on taxonomy, morphology of Angiosperms and pharmacognosy of medicinal plants. Facilities are available for taxonomical work. The Herbarium has 30,000 specimens including cultivated taxa and the Library collection exceeds 15,000 books and 460 research journals.

**LOCATION :** Lucknow, Uttar Pradesh.

**POSTAL ADDRESS :** Chattar Manzil Palace, Lucknow, Uttar Pradesh.  
*Telephone : 32411, Telex : 0535-286, Cable : CENDRUG, Lucknow.*

**SOIL :** Alluvial.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 26° 55' N, Long. : 80° 59' E, Alt. : 123 m, Temp. : 11.1° to 36.6° C (Min. in Dec.-Jan., Max. in May-Jun.), Rainfall : 1100 mm (Max. in Jul.-Aug., Min. in Dec.-Jan.).*

**STATUS :** Autonomous body under C.S.I.R. Director, Central Drug Research Institute, Lucknow.

**MANAGEMENT :** *Head, Botany Division, Scientific & Technical : 38 (including Gardeners), Research Fellow : 1, Research Associate : 1.*

## AGRI-HORTICULTURAL SOCIETY, MADRAS

This is one of the very old institutions in India (established in 1835) dedicated to the cause of promotion of horticultural activities in the country.

Basically an ornamental garden, it covers an area of about 7.5 ha and is near to Madras Central railway station. Opening hours is from 8:00 to 12 : 00 hrs and 13 : 30 to 17 : 30 hrs with no entry fee. Annual visitors exceed 1 lakh, peak season being January and February.

The garden has a collection of 110 species of trees and shrubs and a variety of other ornamental plants viz. *Adansonia digitata* L., *Adenantha pavonina* L., *Ficus glomerata* Roxb., *F. nitida* Blume, *F. krishnae* A. DC., *F. pandurata* Hanse, *Pachira insignis* Savign, *Tabebuia guayacan* Hemsl., *Cassia laevigata* Willd., *C. ovalifolia* Mart. & Gal., *Euphorbia multifida* N. E. Brown. etc. Flower show is organised every year during the month of February. Publishes *Souvenir* and maintains a collection of 543 books.

LOCATION : Madras, Tamil Nadu.

POSTAL ADDRESS : Agri-Horticultural Society, 31 Cathedral Road, Madras 600 086. Telephone : 86836.

SOIL : Red loam.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 13°04'N, Long. : 80°17'E, Alt. : Sea level, Temp. : 24.5° to 32.7°C (Min. in Jan., Max. in May), Rainfall : 1215 mm (Min. in Feb., Max. in Nov.).

STATUS : Private, controlled by an Executive Committee. Annual budget : Rs. 4 lakhs.

MANAGEMENT : Chairman, Scientific & Technical : 1, Others : 21.

## PAMPAVANA, MUNIRABAD

Pampavana Garden, Munirabad was established in the year 1967. This garden is just below the Tungabhadra Dam near Munirabad railway station, very close to the ruins of Hampi, the famous prosperous capital of Vijayanagar empire. The area of this garden is about 26 ha out of which water spread area is about 2 ha. The garden is laid out in an informal Japanese style. With a view to enhance beauty of the dam site and without changing the topography of the area, this Japanese type garden is laid out. Visitors can reach this garden from Hospet in Bellary district and Koppal in Raichur District. Munirabad is also connected with train services on Guntakal—Hubli line. The garden has a boating pond and circulating water pond which circulates water inside the garden in zig-zag fashion with arches and bridges. There are pergolas, pagodas and arches all made in Japanese style. The plant wealth of the garden consists of flowering trees like *Cassia*, *Lagerstroemia*, *Acacia*, *Hibiscus*, *Ficus*, *Schinus molle* L., Weeping Willows, creepers like *Allamanda*, *Bignonia*, and many varieties of shrubs. There are 564 species and 239 varieties of plants in this garden. The Library has a collection of 102 books.

The garden is kept open for the public from 8 : 00 to 19 : 00 hrs. The visitors are allowed without any entry fee. The tourists visiting Tungabhadra Project and Hampi visit this garden also. Annually two lakh persons are coming to this garden. The best season to visit the garden is between August and February. The garden of this type in Japanese style is the only one in Karnataka.

**LOCATION :** Munirabad, Dist. : Raichur, Karnataka.

**POSTAL ADDRESS :** Munirabad, Dist. : Raichur, Karnataka. *Telephone* : 66.

**SOIL :** Red rocky.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 15°21'N, *Long.* : 76°14'E, *Alt.* : 531.57 above msl, *Temp.* : 22.1° to 33.8°C (Min. in Dec., Max. in May), *Rainfall* : 63.3 cm (Min. in Jan., Max. in Sept.).

**STATUS :** Karnataka State Government, Department of Horticulture.  
*Annual budget* : Rs. 1.50 lakh.

**MANAGEMENT :** *Head* : Assistant Horticultural Officer, Scientific & Technical : 1, *Others* : 4.

## **CURZON PARK AND NISHAT BAUGH OF MYSORE CITY**

The city of Mysore is known as the garden city of India, a name which it rightly deserves. A considerable portion of the city lying between the Palace and Lalitha Mahal is occupied by a number of parks and gardens intercepted by beautiful avenue and roads—really an enchanting place for a lover of nature. The city itself is known for its well planned roads bordered by trees, providing shade and beauty with their blooms.

Most of the gardens of Mysore are established by the ex-rulers of Mysore.

### **(I) Curzon Park :**

Curzon Park near Mysore railway station has been laid out in four blocks divided by the Albert Victor Road and Statue Square covering an area of 8 ha which is lying between the Palace Road and Bus stand. In the middle, the marble statue of His Highness Late Sri Chamaraja Wadiyar Bahadur is situated under a glittering gold plated canopy. Another important feature of the garden is Hardinge circle which has a diameter of about 110 m and is laid out beautifully. This has six gates with background shrubberies and the space between the gates is covered by lawns and spectacular *Canna* beds maintained throughout the year. The fairy fountain connecting this circle with the statue with clipped *Clerodendron* hedge along with the foot path on either side enhances beauty. This rectangular formal garden is open to the visitors from 8 : 00 to 20 : 00 hrs showing greatest floral display during September-October. It draws about 60 lakh visitors annually mostly during October.

Plant wealth consists of ornamental flowering and foliage trees, avenue trees, shrubs, creepers, medicinal plants, glass house plants in a number of species and varieties. Horticultural show is conducted every year during Dussehra festival. The garden Library has 314 books and 10 research periodicals.

**LOCATION :** Mysore City, Karnataka.

**POSTAL ADDRESS :** Curzon Park, Mysore 570 001. *Telephone : 22255.*

**SOIL :** Red soil.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 12°.18' Long. : 75°42' E,*

*Alt.* : 610 m, *Temp.* : 15.5° to 36.2°C (Min. in Oct.-Dec., Max. in Mar.-Apr.), *Rainfall* : 76.19 cm.

**STATUS** : Department of Horticulture, Karnataka State Government.

**MANAGEMENT** : *Deputy Director of Horticulture, Mysore Division, Curzon Park, Mysore, Assistant Director of Horticulture, Parks and Gardens, Mysore, Scientific & Technical : 2, Others : 2.*

**(2) Nishat Baugh :**

The garden near Mysore railway station has an area of 6 ha and situated in between Zoo Garden and Taluka Office road of Mysore City. This formal garden is open to visitors from 8 : 00 to 18 : 00 hrs with no entry fee and draws about 40 lakh visitors annually mostly during October which is the best month to visit and also the time of greatest floral display. It is one of the oldest ornamental nurseries and acts as the nucleus centre for the propagation and multiplication of ornamental plants in Mysore Division. It has a good collection of plants, especially foliage in about 170 species and varieties.

**LOCATION** : Nishat Baugh, Mysore City, Dist. : Mysore, Karnataka.

**POSTAL ADDRESS** : Nishat Baugh, Mysore City, Mirza Road, Mysore.  
*Telephone* : 22255.

**SIOL** : Red soil.

**GEOGRAPHIC AND CLIMATIC DATA** : *Lat.* : 12°18' N, *Long.* : 76°42' E  
*Alt.* : 610 m, *Temp.* : 15.5° to 36.2°C (Min. in Oct.-Dec., Max. in Mar.-Apr.), *Rainfall* : 76.19 cm.

**STATUS** : State Government of Karnataka, Department of Horticulture.

**MANAGEMENT** : *Head : Assistant Director of Horticulture, Parks & Gardens, Mysore City, Scientific & Technical : 2, Others : 31.*

## BRINDAVAN GARDENS, MYSORE

The garden located on the downstream of Krishnarajasagar reservoir of Mysore is a superb blend of engineering, architecture and horticultural sciences. Terraces, fountains and colourful lights transform it to a fairyland of colour at night and tourists visiting the state of Karnataka will obviously find time to have a look at this 'Garden of Paradise'

Established in 1927 this is typically not a botanical garden but in view of its immense public appeal this is being listed along with other botanical gardens and parks of the country.

The reservoir water spread is about 129.5 sq km. The area devoted to plantation of floricultural and arboricultural plants is about 24 ha. The campus is about 20 km from Mysore railway station. The nearest railway station is, however, K. R. Sagar. The garden is open from 6 : 00 to 22 : 00 hrs every day with an entry fee of Rs. 0.50 for pedestrians, Rs. 30.00 for tourist bus and Rs. 8.00 for car. Best season to visit is during September and October. Annual visitors figure about 32 lakhs.

Large varieties of herbaceous annuals and some perennials including innumerable Bougainvilleas have been planted for beautifying the garden. It has good collection of beautiful *Mussaenda*, *Bougainvillea*, *Euphorbia leucocephala* Lotsy, dwarf salvia and different varieties of hedge plants and foliages. There is one glass house and one green house. The Library has 150 books.

The gardens are terraced with a central water channel running in the middle. The lawns and flower beds are placed symmetrically on either side of the central channel with fountains. The slopes are covered with beautiful Bougainvilleas, Allamandas and annual flowers. The longitudinal flower beds in full bloom along the pathways lend exquisite colour. The boating pond separates the South Brindavan from North Brindavan. There is a spacious Children Park by the side of South Brindavan. A Training Centre for horticultural training is existing there. The latest attraction added to the garden is the Dancing Musical Fountain. The illumination in the gardens has been modernised with dynamic lighting and ambient music.

LOCATION : K. R. Sagar, Dist. : Mandya, Karnataka State.

POSTAL ADDRESS : (i) Assistant Director of Horticulture, Brindavan Gardens, K. R. Sagar. Telephone : 47, (ii) Executive Engineer, Brindavan Gardens, K. R. Sagar. Telephone : 27.

SOIL : Sandy loam, red loamy, clayey and rocky.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 12°33' N, *Long.* : 76°34' E, *Alt.* : 750 m, *Temp.* : 17° to 30°C (Min. in Dec.-Jan., Max. in May), *Rainfall* : 730 mm (Min. in Feb., Max. in Oct.).

STATUS : Government of Karnataka State, Department of Horticulture and Department of Irrigation.

MANAGEMENT : *Assistant Director of Horticulture, Executive Engineer; Scientific & Technical* : 3, *Others* : 70.



## BUDDHA JAYANTI PARK, NEW DELHI

In 1956, Pandit Jawaharlal Nehru, the then Prime Minister of India laid the foundation stone of this garden to commemorate the 2500 Birth Anniversary of Lord Buddha.

Since its establishment in a site around 'Kushak View' on the ridge the development of the park has been progressing steadily and it has been able to find its place among the numerous tourist spots in New Delhi and is a site for picnickers, recreation and enjoyment. The garden covers an area of 29.2 ha.

It has a collection of about 2000 trees and shrubs in about 75 genera and 160 species and a large number of rock garden plants in its 8.3 ha of lands for rockery. The plants include ashok, champa, dhak and pipal which are believed to be associated with the life of Lord Buddha. During winter the park presents magnificent colour when the seasonal herbaceous annuals are in full bloom. A number of bulbous plants and hardy annuals are exhibited in the barren rocks. Among notable attractions of the garden are a floral clock and a rock with the inscription provided by Pandit Jawaharlal Nehru which marked its opening ceremony in 1968 by His Excellency U. Thant, Secretary General of the United Nations.

LOCATION : New Delhi.

POSTAL ADDRESS : Buddha Jayanti Park, New Delhi

SOIL : Clay loam.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 28°38' N, *Long.* : 77°12' E,  
*Alt.* : 218 m, *Temp.* : 6.8° to 38.6°C (Min. in Dec.-Jan., Max. in May-Jun.), *Rainfall* : 715 mm (Min. in Nov.-Dec., Max. in Jul.-Aug.).

## LODI GARDEN, NEW DELHI

The Lodi Garden as is presently known was initially demarcated as a tomb garden during the reign of Lodi dynasties (1451-1526). Inside this exquisitely beautiful extensive landscaped garden are a series of square and octagonal tombs of Sayyid and Lodi dynasties, Muhammad Shah and Sikandar Shah Lodi, some of which combine the features of both Hindu and Islamic architecture, while others clearly reveal the Lodi style. With the passage of time, the garden passed from one management to another and lastly to the New Delhi Municipal Committee (NDMC) from the Central Public Works Department (CPWD) on and from March 4, 1962.

The triangular area of Lodi Garden is butted and bounded on east and west by Ratchdome and Cornwallis Roads and on the south by Lodi Road. With an area of about 36.50 ha and located on the southern part of the city, nearly 8 km away from New Delhi railway station and 15 km from Indira Gandhi International air port (Palam) it is one of the chief attractions of the capital, a unique place for morning walkers and joggers. If the ancient belief that even the breeze across the neem (*Azadirachta indica* A. Juss.) trees is beneficial for vigour and vitality, then this garden is no doubt a magnificent health resort as innumerable robust trees of the said species are growing here.

The park around Lodi tombs received adequate attention since 1966. Undulating grassy lawns and serpentine paths paved with red sand stones have made it a pedestrians' paradise. The garden is visited by a large number of public throughout the year, best time being from October to March with profuse flowering of winter annuals during January-February. Entry timings are between 5 : 00 and 21 : 00 hrs from April to September and 6 : 00 and 20 : 00 hrs from October to March.

Plenty of parrots and squirrels add splendour and charm to the natural beauty and boost to the nature lovers. A few overhead bridges and an artificial cemented lily pool with fountains adjacent to the tomb provide much recreation to all. Public conveniences and other amenities are available including adjacent restaurants for light refreshments. It is a pleasure to see the lighting arrangements on tombs. Some restrictions have been imposed on swimming, shooting, playing of loudspeakers, cassette recorders etc.

Though a tomb garden, it is not lagging behind in plant collection. It is enriched with a population of over 8,000 plants of various species of

diverse habitats. Species growing in abundance include : *Azadirachta indica* A. Juss., *Alstonia scholaris* (L.) R. Br., *Grevillea robusta* A. Cunn. ex R. Br., *Acacia auriculiformis* A. Cunn., *Roystonea regia* (H.B. & K.) O.F. Cook, *Bauhinia* sp., *Polyalthia longifolia* (Sonn.) Thw., *Ceiba pentandra* (L.) Gaertn., *Bougainvillea* sp., *Casuarina equisetifolia* Forst., *Prosopis* sp., *Caesalpinia pulcherrima* (L.) Sw., *Tabernaemontana divaricata* (L.) R. Br. ex Roem. & Schult., *Lagerstroemia speciosa* (L.) Pers., Bamboos, *Plumeria acuminata* Roxb. etc.

A small glass house for growing cacti and succulents and shade loving plants was constructed and presented by the Ford Foundation in 1970. A good number of potted house plants under the genera *Dieffenbachia*, *Monstera*, *Philodendron*, *Scindapsus*, *Alocasia*, *Agave*, *Aglaonema*, *Caladium* etc. are maintained there.

LOCATION : New Delhi.

POSTAL ADDRESS : Lodi Garden, New Delhi, C/o. NDMC, Palika Kendra, Sansad Marg, New Delhi 110 001. Telephone : 332-5626, 31-1006, 35-2283.

SOIL : Sandy loam.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 28°38' N, Long. : 77°12' E, Alt. : 218 m, Temp. : 6.8° to 38.6°C (Min. in Dec.-Jan., Max. in May-Jun.), Rainfall : 715 mm (Min. in Nov.-Dec., Max. in Jul.-Aug.).

STATUS : Under New Delhi Municipal Committee (NDMC).

MANAGEMENT : Director (Hort.), Deputy Director : 2, Assistant Director : 4, Scientific & Technical : 5, Others : 90.

## NEHRU PARK, NEW DELHI

On 25th February, 1965 the foundation stone of the park was laid by late Sri Lal Bahadur Shastri, the then Prime Minister of India. A waste land covered with spiny bushes and noxious shrubs partly occupied by slum dwellers having an area of about 30 ha was renovated to a beautiful park and pleasure spot in a picturesque undulated lay out in the capital at Chanakyapuri surrounded by Vinoy Marg in the east, Niti Marg in the west, Punchseel Marg in the north and Satya Marg in the south. It has a rich collection of plants exceeding about 4000 specimens which include : *Acacia auriculiformis* A. Cunn., *Alstonia scholaris* (L.) R. Br., *Azadirachta indica* A. Juss., *Bougainvillea* sp., *Callistemon linearis* DC., *Cassia fistula* L., *Casuarina equisetifolia* Forst., *Ceiba pentandra* (L.) Gaertn., *Chorisia speciosa* St. Hill., *Delonix regia* (Boj. ex Hook.) Raf., *Eucalyptus citriodora* Hook., *Euphorbia leucocephala* Lott., *E. pulcherrima* Willd. ex Klotz., *Ficus bengalensis* L., *F. benjamina* L., *F. infectoria* Roxb., *Grevillea robusta* A. Cunn., *Jacaranda mimosifolia* D. Don, *Millettia peguensis* Ali, *Parkinsonia aculeata* L., *Peltophorum peterocarpum* (DC.) Backer ex K. Heyne, *Pinus* sp., *Plumeria acuminata* Roxb., *Roystonea regia* (H.B. & K.) O.F. Cook., *Syzygium jambos* (L.) Alston., *Tabebuia chrysantha* (Jacq.) Nichols., *T. rosea* (Bertol.) DC. etc.

The park provides ample public conveniences and participates in exhibition and Flower shows. It is particularly liked by the school children who frequently visit the place. Among a number of features within, mention may be made of an irregular artificial water reservoir and the gigantic statue of Lenin. The groves of *Jatropha*, *Pinus*, *Grevillea*, *Peltophorum* and *Chorisia* are spectacular.

LOCATION : New Delhi.

POSTAL ADDRESS : Nehru Park, New Delhi, C/o. NDMC, Palika Kendra, Sansad Marg, New Delhi 110 001. Telephone : 332-5626, 31-1006, 35-2283.

SOIL : Sandy loam.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 28°38'N, Long. : 77°12'E, Alt. : 218 m, Temp. : 6.8° to 38.6°C (Min. in Dec.-Jan., Max. in May-Jun.), Rainfall : 715 mm (Min. in Nov.-Dec., Max. in Jul.-Aug.).

STATUS : Under New Delhi Municipal Committee (NDMC).

MANAGEMENT : Director (Hort.), Deputy Director : 2, Assistant Director : 4, Supervisor : 4, Others : 95.

## RASHTRAPATI BHAVAN GARDEN, NEW DELHI

The Garden with an area of 2 ha with green turf, exquisite colour and fountains is an attracting spot in a 137.5 ha of the estate of the Rashtrapati Bhavan in New Delhi.

Designed in the style of the Mughal gardens of the Kashmir valleys, this is kept open to the public for a month only in winter. It delights tourists and naturalists on holidays in winter when the colourful annuals and roses are in full bloom. The original lay out plan of the garden was prepared by Mustow, an ex-superintendent of the garden before 1947 which was subsequently developed by Indian gardeners after Independence.

Interesting features of the garden include an island in the centre with beautiful lawn serving as the venue of receptions held at the Rashtrapati Bhavan, sunken garden, rock garden, enchanting annual beds, avenue of clipped cypresses, fountains and circular ponds. Plant collections include several species of flowering trees, bulbous plants, Bougainvillea, Orchids, ferns, succulents and more than 400 varieties of roses. Inside the premises there is a green house, a nursery and a fruit garden.

LOCATION : New Delhi.

POSTAL ADDRESS : Rashtrapati Bhavan, New Delhi 110 011.

SOIL : Clay loam.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 28°38'N, *Long.* : 77°12' E,  
*Alt.* : 220 m, *Temp.* : 6.3° to 38.3°C (Min. in Dec.-Jan., Max. in May-Jun.), *Rainfall* : 715 mm (Min. in Nov.-Dec., Max. in Jul.-Aug.).

STATUS : Government of India.

MANAGEMENT : *Garden Superintendent, Scientific & Technical and Others.*

## TALKATORA GARDEN, NEW DELHI

The Asiad of 1982 brought into prominence the Talkatora area in New Delhi as all the swimming events were held in the newly created Talkatora Swimming Pool. The adjacent Talkatora Garden which existed since long back was also brought to a new shape after extensive renovation during this eventful incident.

Situated on the western side of the city, the garden comprises an area of nearly 18.20 ha with an indoor stadium and the famous swimming pool of over 5.25 ha and a beautiful small garden. The visitors can enter into the garden through two main entrances, one located on the Willingdon Crescent, a furlong from the Rashtrapati Bhavan and the other on the Mandir Marg. There are also two small entry gates, one at the Park Street and the other at the R. K. Ashram Marg. The garden is being maintained by New Delhi Municipal Committee (NDMC). Free entries are allowed between 5 : 00 and 20 : 00 hrs during April to September and between 6 : 00 and 19 : 00 hrs during October to March. The best seasons for visiting the garden are winter and spring.

Apart from over 1000 established trees distributed under nearly 40 genera and species, the central water reservoir with fountains and terraces resembling the typical Mughal style is perhaps the most beautiful feature. The paved pathways with stairs, annual ornamental beds and lighting arrangements on both sides of the water surface exhibit a pleasant site to all who visit the garden particularly after dusk. The *Polyalthia—Lantana* avenue, the *Eucalyptus* and palm groves and the nicely pruned *Thuja* are delightful displays. A lovely specimen of *Crescentia cujete* L. in the corner of the indoor stadium is reported to be the uncommon tree in the garden. The massive plantations of *Chorisia speciosa* St. Hill. bring splendour to the garden in October-November when they are in bloom. The dominating and interesting species are *Acacia auriculiformis* A. Cunn., *Aegle marmelos* (L.) Corr., *Alstonia scholaris* (L.) R. Br., *Azadirachta indica* A. Juss., *Bauhinia acuminata* L., *B. purpurea* L., *B. variegata* L., *Bombax ceiba* L., *Cassia fistula* L., *C. siamea* Lamk., *Ceiba pentandra* (L.) Gaertn., *Dalbergia sissoo* Roxb., *Delonix regia* (Boj. ex Hook.) Raf., *Erythrina variegata* L., *Ficus bengalensis* L., *F. elastica* Roxb., *F. religiosa* L., *Grevillea robusta* A. Cunn. ex R. Br., *Kigelia pinnata* DC., *Lagerstroemia speciosa* (L.) Pers., *Mangifera indica* L., *Mimusops elengi* L., *Morus indica* L., *Peltophorum pterocarpum* (DC.) Backer ex K. Heyne, *Plumeria acuminata* Roxb., *P. rubra* L., *Pterospermum acerifolium* (L.) Willd., *Tamarindus indica* L. etc. The gymnosperms are represented by *Araucaria* sp., *Pinus* sp. and *Thuja* sp. The garden has a Children's Corner

with few outdoor fittings for play and recreation and hockey cum cricket ground for which advance booking is required on payment. A small nursery for raising seedlings and saplings is also maintained.

The adjacent Talkatora Swimming Pool and Indoor Stadium are controlled by Sports Authority of India, while the gardens are maintained by NDMC. A lovely garden surrounding the swimming pool has been developed and each and individual plant is receiving care and appropriate arboricultural operations. The enclosure contains the following species which are both healthy and in proper shape and size:

*Acacia auriculiformis* A. Cunn., *Acalypha hispida* Burm. f., *Acalypha* sp., *Agave americana* L. var. *variegata*, *Alstonia scholaris* (L.) R. Br., *Bauhinia variegata* L., *Bougainvillea* sp., *Bombax ceiba* L., *Callistemon citrinus* (Curtis) Skeels, *Cassia fistula* L., *Ficus bengalensis* L., *Grevillea robusta* A. Cunn. ex R. Br., *Mangifera indica* L., *Plumeria rubra* L., *Polyalthia longifolia* (Sonn.) Thw., *Tabebuia argentea* Britt., *T. rosea* (Bertol.) DC., *Thuja occidentalis* L. etc.

In addition, in about 22.50 ha adjacent area urban forestry is also maintained.

LOCATION : New Delhi.

POSTAL ADDRESS : Talkatora Garden & Swimming Pool, New Delhi, C/o. NDMC, Palika Kendra, Sansad Marg, New Delhi 110 001. Telephone : 332-5626, 31-1006, 35-2283, Cable : NDMC, New Delhi.

SOIL : Sandy loam.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 28°38'N, Long. : 77°12'E, Alt. : 240 m, Temp. : 6.8° to 38.6°C (Min. in Dec.-Jan., Max. in May-Jun.), Rainfall : 715 mm (Min. in Nov.-Dec., Max. in Jul.-Aug.).

STATUS : Under New Delhi Municipal Committee (NDMC).

MANAGEMENT : Director (Hort.) 1, Deputy Director 2, Assistant Director 4, Scientific & Technical 5, Others 90.

## MUGHAL GARDEN, PINJORE

This garden, a dreamland of northern India is located 20 km away from Chandigarh and about 5 km below Kalka on the Ambala-Simla Road. It is also known as the Yadvendra Garden, Pinjore named after the son of the Maharaja of Patiala.

Extending over an area of 17 ha this 17th century perfectly laid out landscape garden with descending terraces leading to the Shiwalik range is a picturesque spot in a natural surrounding for holiday makers and tourists. The original garden was laid out during the period of Aurangzib (1658-1707) which became derelict but was restored by the rulers of Patiala during the last century.

The garden has a beautiful collection of fruit trees viz. mango, litchi, jack fruit, papaya, banana, bael, chiku and loquat growing in an area of 8.3 ha. Ornamental trees, shrubs, annuals, roses and a variety of sub-tropical plants are of added attractions. It has two well established nurseries in 0.8 ha of land where propagation of plants are practised on commercial scale. The 'Shish Mahal' and the 'Rang Mahal' are two permanent structures inside which are presently used as rest houses.

**LOCATION :** Pinjore, Haryana.

**POSTAL ADDRESS :** The Mughal Garden, Pinjore, Haryana.

**SOIL :** Fertile alluvial.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 30°42'N, *Long. :* 76°54'E,  
*Alt. :* 609.6 m, *Temp. :* 13.5° to 32°C (Min. in Dec.-Jan., Max. in May-Jun.), *Rainfall :* 1120 mm (Min. in Nov., Max. in Jul.).

**STATUS :** Government of Haryana.

**MANAGEMENT :** *Director of Tourism, Haryana.*



## **BOTANICAL GARDEN, BIHAR AGRICULTURAL COLLEGE, SABOUR**

The garden established in 1923, occupies an area of about 2.45 ha located a few km away from Sabour railway station (near Bhagalpur) of Bihar on Sahibganj loop line of Eastern Railway. It draws visitors specially during December-January. The garden is open from 8 : 00 to 16 : 00 hrs during winter and 7 : 00 to 17 : 00 hrs during summer.

Inside the premises there are 117 trees and shrubs with 85 varieties distributed under 75 species. This includes *Cinnamomum tamala* Nees., *Dalbergia melanoxydon* Guill & Perr., *Dillenia indica* L., *Dimocarpus longan* Lour., *Diospyros discolor* Willd., *Ficus elastica* Roxb., *F. glomerata* Roxb., *F. parasitica* Koen., *Phoenix dactylifera* L., *P. rupicola* T. Anders., *P. sylvestris* Roxb., *Solanum spirale* Roxb., *Stereospermum chelonoides* DC. etc. The chief objective is to teach undergraduate agricultural students. There is one green house inside the garden.

**LOCATION :** State of Bihar, Dist. : Bhagalpur.

**POSTAL ADDRESS :** Rajendra Agricultural University, Sabour, Bhagalpur, Bihar.

**SOIL :** Old alluvial.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 25.14°N, *Long.* : 87.04°E, *Alt.* : (msl) 112.28 m, *Temp.* : 17.6° to 37.1°C (Min. in Jan., Max. in May), *Rainfall* : (Annual) 1051 mm (Max. in Jul.-Aug., Min. in Jan.-Feb.).

**STATUS :** Autonomous Body controlled by Rajendra Agricultural University, Bihar.

**MANAGEMENT :** *Head of the College, Scientific & Technical* : 1, *Others* : 3.

## RAJ BHAVAN GARDEN, SIKKIM

It is a small garden attached to the Governor's Palace, Sikkim covering an area of about 2 ha with two small ponds. Nearest railheads are Siliguri on the meter gauge and New Jalpaiguri on the broad gauge. Since it is within Raj Bhavan, entry of public is prohibited. The garden has to its credit 50 species of plants and one small green house for orchids. Some of the important plants are ; *Solandra hartwegii* Br., *Paphiopedilum villosum* (Lindl.) Steen, *Magnolia liliflora* Desrouss, *Cyathea spinulosa* Hook., and *Ginkgo biloba* L.

LOCATION : Gangtok, Sikkim.

POSTAL ADDRESS : Raj Bhavan Garden, Gangtok 737 101, Sikkim. Telephone : 400.

SOIL : Clay (brown to dark grey).

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 27°20'N, Long. : 88°37'E, Alt. : 1760 m, Temp. : 0.7° to 26.8°C (Min. in Dec.-Jan., Max. in Apr.-Jun.), Rainfall : 1500-2000 mm (Annual).

STATUS : Government of Sikkim.

MANAGEMENT : Head mali : 1, Others : 10.

## GANDHI PARK, SIROHI

Sirohi situated amidst the Aravalli hills, is famous for natural sights and scenery. In 1943, the Gandhi park was constructed by the erstwhile Sirohi state for public welfare. The area of this garden is 4 ha. It is well connected by bus and rail. It is open to public from 5 : 00 to 11 : 00 hrs (15th March to 30th September) and from 1st October to 14th March, 6 : 00 to 10 : 00 hrs free of cost and is visited by about 20,000 visitors annually.

The garden has a collection of about 120 trees and 300 shrubs of botanical and horticultural interests.

LOCATION : Dak Bungalow, State of Rajasthan, Dist. : Sirohi.

POSTAL ADDRESS : Assistant Inspector of Gardens, Government Gardens Department, Sirohi, Dist. : Sirohi, Rajasthan.

SOIL : Sandy loam.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 24.53'N, *Long.* : 72.54'E, *Alt.* : 300 m, *Temp.* : 5° to 42°C, *Rainfall* : 750 mm.

STATUS : A State Government establishment controlled by Superintendent, Government Gardens, Jodhpur. *Annual budget* : Rs. 80,000.

MANAGEMENT : *Superintendent of Gardens, Jodhpur, Assistant Inspector of Garden* : 1, *Others* : 15.

## TROPICAL BOTANIC GARDEN, TRIVANDRUM

The garden was established in December, 1979 in an area of 121.234 ha with 4.7 ha water area. The main objects of the Tropical Botanic Garden with associated Research Institute are : (1) to make a comprehensive survey of the economic plant wealth of Kerala, (2) to conserve, preserve and exploit the plant wealth of Kerala, (3) to introduce, cultivate and culture plants of India/other countries with comparable climatic conditions for the economic benefit of Kerala and of India, (4) to carry out botanical, horticultural and chemical researches for plant improvement and utilisation, (5) to offer facilities for the improvement and to propagate them in the larger context of establishing nursery and flower trade, (6) to organise germplasm collections of economic plants of interest to the state, (7) to establish a model production centre for translating the fruits of research to public advantage leading to plant based industrial ventures, (8) to engage in activities conducive to help botanical teaching and to create public understanding of the value of plant research in general, and the news for preserving plant wealth, (9) to establish an Arboratum in approximately half the area of the garden with representative specimens of the trees of Kerala and India, and trees of economic value introduced from other tropical areas of the world, (10) to establish a garden consisting of medicinal plants, ornamental plants and various introduced plants of economic and aesthetic value, (11) to establish laboratories for botanical, horticultural and chemical research, with the aim of improvement and utilisation of plants of medicinal and ornamental value, (12) to prepare a flora of Kerala, (13) to establish tissue culture facility with special reference to the improvement of seeds/fruits/flowers and quite an easy propagation, (14) to organise breeding for plant improvement and production of hybrid seeds, (15) to be engaged in garden planning and research, (16) to serve as a source of supply of improved plants not readily available from other agencies, (17) to do chemical screening of plants of potential medicinal importance, (18) to work in collaboration with similar institutes in India and outside and (19) to promote and establish modern scientific research and development studies relating to plants of importance to India, and to Kerala in particular.

The site of the garden is about 39 km from Trivandrum railhead on the south western slope of the Western Ghats. Buses are available from Trivandrum bus stand near the railway station. Official activities at present are being carried out at a site located about 5 km away from Trivandrum railhead. The institute proposes to have 5 glass houses and researches on taxonomy, tissue culture and biotechnology and lend facilities for botanical and horticultural research. It aims at publishing

*Index Seminum* and *Newsletter* and has initiated collection for preparing the garden Herbarium. A book on *South Indian Orchids* (Introduction to orchids with illustrations and descriptions of 150 South Indian Orchids) has been published. The Library has 1852 books, 68 research journals and a Panaprint copying machine.

LOCATION : Palode, Dist. : Trivandrum, Kerala State.

POSTAL ADDRESS : Palode, Pacha P.O., Dist. : Trivandrum, Kerala.

Telephone : 65756, 65492, 67793, Cable : TROPGARDEN, Trivandrum.

SOIL : Alluvial, laterite, loamy.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 8°48'N, *Long.* : 77°E, *Alt.* : 200 m, *Temp.* : 22° to 32°C (Max. in Apr.-May), *Rainfall* : 3200 mm to 4200 mm (Min. in Mar.-Apr., Max. in Jun.-Jul.).

STATUS : Autonomous Body. *Annual budget* : Rs. 30 lakhs.

MANAGEMENT : *Chairman, Director* : 1, *Deputy Director* : 1, *Scientific & Technical* : 18, *Research Fellows* : 1, *Others* : 38.

## A FEW OTHER GARDENS OF PUBLIC AND ACADEMIC INTEREST IN DIFFERENT STATES AND UNION TERRITORIES

### (i) ASSAM :

Botanic Gardens at Diphu (Karbi Ayclong) and Haflong at North Cachar Hills district and at Guwahati (Zoo site) in Assam are being established.

### (ii) DELHI :

(a) **All India Institute of Medical Sciences, New Delhi :** Located at Ansarinagar, the Institute has only landscape gardens around various hospital units and residences. Roads and surroundings have been treated with planting trees to act as a green barrier and also to help purifying the atmosphere.

(b) **Indian Institute of Technology, New Delhi :** Located at Hauz Khas, the Institute has no Botanical Garden as such, but a garden area of 47.9 ha and 12000 trees and shrubs are maintained by the Horticulture Division of the Institute.

(c) **Roshanara Garden, New Delhi :** The garden is named after Roshanara Begum, the second daughter of Emperor Shahjahan and favourite sister of Aurangzeb as she was responsible for laying out this wonderful garden near Clock Tower, Sabzimandi. Her tomb still stands inside.

The garden now belongs to Municipal Corporation of Delhi. It has the rare privilege among Indian gardens to be the pioneer in cultivating inside it a Japanese style garden initiated by Dr. M. S. Randhawa after 1960 in consultation with a team of Japanese experts. Later Mr. V. Shanker played a positive role in laying out the garden inside, true to conception of the Japanese type of gardens with pond, stepping stones, wooden bridges and sitting places reminding one of the surroundings of abodes of our *Rishis*. Adaptation of concepts of Japanese style of gardening in India was first established in this garden using indigenous plants and rocks leading to an important development in the history of gardening.

(d) **Parks and Gardens maintained by the Horticulture Department, New Delhi Municipal Committee (NDMC) :**

Apart from maintaining Lodi Garden, Talkatora Garden and Nehru Park which have been separately dealt with in this Directory, NDMC has

also successfully taken up maintenance and development of the following parks and greeneries in and around the capital.

1. **Central Vista and 'C' hexagon plots** : A big park located at Rajpath.
2. **'M' Avenue Park** : A medium park at Sarojini Nagar.
3. **Brigadier Hosiari Singh Road Park** : A medium park at Lakshmi Bai Nagar.
4. **Children's Park** : A small park located at India Gate.
5. **Central Park, Connaught Place** : A small park at Connaught Place.
6. **Green Colonies** : Three such colonies exist at Golf Link, Jor Bagh and Diplomatic Enclave.
7. **Roundabout** : 47 in number distributed in the entire NDMC area in New Delhi. Perennial shrubs and annual ornamentals are under cultivation.
8. **New Covered Nullas** : Three such spots located at Kidwai Nagar, Netaji Nagar and Chanakya Puri.
9. **Green Road Berms** : A number of such spots exists on various roads like Willingdon Crescent, Teen Murti Marg, Rajaji Marg, Safdarjung Road, Hanuman Road etc.
10. **City Scape : Kushak Nulla** : Located near Ashoka Hotel.

(iii) HIMACHAL PRADESH :

Director of Horticulture, Himachal Pradesh, Simla does not have any Botanic Garden under his control in a strict sense of the term but has a network of Progeny-cum-demonstration orchards/nurseries in the state which are engaged in multiplying quality fruit plants and serve as model orchards in the nearby areas.

(iv) KERALA :

(a) **Malampuzha Dam** : It is located at the foot hills of the Western Ghats, built across the Bharathepuzha, about 14 km from Palghat

near Trivandrum. The beautiful landscape garden with many statues visible here present a fascinating picture when illuminated. Generally the dam and gardens are illuminated on Saturdays, Sundays and festive occasions from 18 : 30 to 20 :30 hrs. The Children's Park, toy train, fish-shaped aquarium, miniature zoo, swimming pool and boating facilities are other attractions here.

(b) **Neyyar Dam** : A beautifully laid out spot with landscaped gardens having swimming pool, located 29 km away from Trivandrum. The site looks like a mini forest or park. Cruises on the lakes and trees in the surrounding forest are also organised. There is a small guest house inside.

(v) **MAHARASHTRA :**

(a) **Indian Institute of Technology (IIT), Powai** : Established in 1960 it has no particular Botanic Garden in the campus but the entire area of 218.7 ha is a wooded land where a number of local trees are grown.

The campus is located within the municipal limits of greater Bombay in the state of Maharashtra. It can be approached from Vikhroli railway station of Central Railway. IIT is an autonomous body financed by the Government of India and its estate office controls the garden. Rainfall in the locality is 1300-1400 mm per year and temperature varies from 24° to 33°C.

(b) **Botanical Garden, Institute of Sciences, Bombay** : It was established in 1930 with an objective to provide plant materials, experimental plants and other practical research facilities to the students and researchers of the Institute.

It occupies an area of 0.2 ha including a 20 sq m tank and is very near to Bombay V. T. railway station. It is open during office hours and shows greatest floral display in winter.

The garden has a good collection of pteridophytes and gymnosperms, 150 trees and shrubs and 125 species of seasonal ornamentals. It takes part in the Flower shows held under 'Friends of Trees' organisation in Bombay. Library is rich with various flora and garden encyclopedias.

POSTAL ADDRESS : Institute of Sciences, Bombay 400 032, Maharashtra.  
*Telephone* : 244219.



SOIL : Red laterite.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 18°54' N, *Long.* : 72°30' E,  
*Alt.* : msl, *Temp.* : Min. 17°C (Dec.-Jan.), Max. 33°C (Mar.-May),  
*Rainfall* : 1800 mm (min. in Feb.-Mar., max. in Jun.-Jul.).

STATUS : A State Government establishment controlled by Department of Botany, Institute of Sciences, Bombay.

MANAGEMENT : *Professor of Botany, Others* : 3.

(vi) MEGHALAYA :

**Botanic Garden, Forest Department, Government of Meghalaya, Shillong** : The garden is located at one end of the beautifully laid out 'Word Lake' covering an area of about 1.4 ha. It contains many interesting and indigenous arboricultural plants.

(vii) RAJASTHAN :

(a) **Purjan Vihar or Company Garden, Alwar** : 164 km from Delhi and also well connected by rail.

(b) **Bada Bagh, Jaisalmer** : Well connected by rail and road. October to March (winter) and July to September (monsoon) are the seasons mostly visited by the public.

(c) **Vidyadharji ka Bagh, Jaipur** : A terraced garden with fountains and pools, 7 km from Jaipur, the capital city of Rajasthan.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 26°55' N, *Long.* : 75°52' E,  
*Alt.* : 431 m, *Temp.* : 40.6° to 25.8°C (summer) and 22° to 8.3°C (winter),  
*Rainfall* : 64 cm.

(d) **Golcha Garden, Jaipur** : A beautifully laid out garden located 2 km away from Ghat Darwaja.

(e) **Ram Nivas Garden, Jaipur** : Laid out in 1868. The Jaipur Museum is within it.

(f) **Sisodia Rani Garden, Jaipur** : A garden with terracc, fountains and pools located 3 km away from Ghat Darwaja.

(g) **Gardens under Jaipur Development Authority, Jaipur :** At present about 148 gardens, parks and circles covering about 48 ha are being maintained in different colonies of Jaipur by the Jaipur Development Authority. The area of these gardens varies from 0.2 to 6.4 ha and these are classified in four major categories keeping in view their total areas, location and requirement of the colony. Gardens under *Category I* have been fully developed with lawns, trees, shrubs, play equipments, lights and other amenities. Gardens under *Category II* have been developed partly with lawns and partly with trees and shrubs and play equipments. *Category III and IV* gardens have been developed in the shade of woodlands and play fields. Among all the gardens grouped in the four categories, the following have been fully developed and properly maintained :

1. **Bhagat Singh Park** : (2.4 ha) at Govind Marg, Adrash Nagar.
2. **Gokhale Park** : (0.8 ha) at Janta Colony.
3. **Kailash Park** : (0.4 ha) on Kanti Chandra Road, Bani Park, Jaipur.
4. **Mahaveer Udyan** : (1.8 ha) on Jawaharlal Nehru Marg, Bajaj Nagar.
5. **Malviya Nagar Parks** : (2.4 ha) in Malviya Nagar, Jaipur under Malvia Nagar Scheme.
6. **Nehru Balodyan** : (6.4 ha) at Gandhi Nagar on Tank Road, opposite to Engineering Institute is the largest garden developed and maintained by the Jaipur Development Authority. It contains a large Rose Garden with about 3000 roses of different varieties. In the large waterpool boats have been provided for recreation of children. A big aquarium and one children library are the added attractions.
7. **Subhas Park** : (0.7 ha) is located at Subhas Nagar Colony on Kailash Marg near T. B. Sanatorium, Jaipur.
8. **Tilak Park** : (2.3 ha) is located on Raman Marg, Tilak Nagar.

(viii) **TAMIL NADU :**

- (a) **Sathanur Dam Gardens** : Located near Tiruvannamalai railway

station in the North Arcot district of Tamil Nadu, covers an area of about 3 ha and is open to public from 6 : 00 to 20 : 00 hrs with 0.50 paise entry fee per head. This is visited annually by about 5 lakh visitors especially during October to January. Chief objective of the garden is to attract tourists. It has a collection of some beautiful trees and shrubs.

POSTAL ADDRESS : Sathanur Dam, Chengam TK, N.A.D.L., North Arcot, Tamil Nadu. *Telephone* : 43.

SOIL : Clay mixed with gravel.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 12°11' N, *Long.* : 78°51' E, *Alt.* : 50 m, *Temp.* : 17° to 43°C (Min. in Dec., Max. in May), *Rainfall* (Mean annual) : 905 mm.

STATUS : Government of Tamil Nadu, controlled by Public Works Department. *Annual budget* : Rs. 1.5 lakhs.

MANAGEMENT : *Assistant Engineer, Sathanur Dam, Scientific & Technical* : 3, *Others* : 50.

(b) **Lake Garden or Children's Garden, Udhagamandalam** : This garden was laid out during 1979. It is under control of the Tourism Department, Tamil Nadu. Located near Ooty lake, adjacent to railway station.

(c) **Tamizhagam Garden, Udhagamandalam** : The Tamizhagam garden previously known as Arranmore palace garden is one of the best gardens in the Nilgiris. When the Government of Tamil Nadu decided to acquire the then Arranmore palace it was also decided to purchase the entire property along with the beautiful garden attached to the palace.

During 1972, the garden was handed over to the Curator, Government Botanic Gardens, Ooty. The entire lawn extending to an area of 2 ha was replanted with the Kikoyu and Bluegrasses. The landscape of the garden was also changed so as to merge with the back drop of the main building.

A new rose garden was laid out near the main building with 900 latest varieties of rose. New flower beds were opened both in the new garden

as well as around the fountain area to add beauty to the site. Several topiary works, pergolas have been recently put up to enhance the general view. Various ornamental plants including cacti and succulents have been collected and maintained in the glass house.

(ix) UTTAR PRADESH :

(a) **Ram Bagh, Agra** : Laid out by Emperor Babar in 1526 A.D. One of the earliest form of Mughal gardens, 10 km away from the historical city of Agra.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 27° 10' N, *Long.* : 78° 05' E, *Alt.* : 169 m, *Temp.* : 21.9° to 45.0° C (summer) and 4.2° to 31.7° C (winter), *Rainfall* : 66 cm (Jun. to Sept.).

(d) **Khusru Bagh, Allahabad** : Located on the Leader Road, 3 km away from Allahabad railhead. The tombs of Khusru with his mother and sister are lying in this garden.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 25.28' N, *Long.* : 81.54' E, *Alt.* : 95 m, *Temp.* : 27.2 to 46.6° C (summer) and 10.5° to 25.6° C (winter), *Rainfall* : 102 cm.

(c) **Gardens of Jhansi** : Jhansi is the principal town of Bundelkhand region of Uttar Pradesh with the memory of Rani Lakshmi Bai, a symbol of courage and dedication. It is a junction railhead on Bombay-Delhi route and situated on the National Highways No. 25 and 26. Gwalior, the nearest air port is 98 km away.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 25° 27' N, *Long.* : 78° 37' E, *Alt.* : 257 m, *Temp.* : 26.2° to 36.7° C (summer) and 14.1° to 29.1° C (winter), *Rainfall* : 936 mm.

This place has a number of gardens recorded in the tourist directory viz., *Government Gardens, Narain Bagh and Rani Luxmi Bai Park.*

(x) WEST BENGAL :

(a) **Parks and Gardens under Forest Directorate, West Bengal** :

Besides a few established parks and gardens like Eden Gardens (Calcutta), Surendra Nath Park (Calcutta), Cooch Behar Parks and Gardens, Jawahar-

Kunj (Barrackpore), and a few gardens at developing stage at Purulia, V. I. P. Road (Calcutta) and Salt Lake (Calcutta), the Parks and Gardens wing under Forest Directorate, Government of West Bengal implemented the following projects during the period 1976-77 to 1980-81.

1. **Darjeeling District** : Shrubbery Garden (Darjeeling), Rishi Bankim Park (Kalimpong), Eagle's Craig Garden (Kurseong) and Mirik Tourism complex Landscaping (Mirik).

2. **Jalpaiguri District** : Mal Park (Mal), Lataguri Children's Park (Lataguri), Mainaguri Park (Mainaguri), Banarhat Children's Park (Banarhat), Nagrakata Children's Park (Nagrakata), Alipurduar Park (Alipurduar).

3. **Purulia District** : Subhas Park, Gandhi Park and Rishi Nibaran Park (Purulia), Anandabazar Garden (Anandabazar).

4. **Nadia District** : Shantipur Garden (Shantipur), Kalyani Picnic Garden (Kalyani), Central Park (Kalyani), Majherpara Childrens' Park (Krishnagar).

5. **24-Parganas District** : Nursery-cum-Garden at Salt Lake, Lake Town and Barasat, Nabapally Park (Barasat), Tarun Udyan (Motijheel, Dum Dum).

6. **Bankura District** : Nehru Park and Vishnupur Park (Bankura), Sishu Udyan (Bankura).

7. **Burdwan District** : Katwa Childrens' Park (Katwa).

8. **West Dinajpur District** : Islampur Park.

9. **Cooch Behar District** : Haldibari Park.

The Parks and Gardens Wing of the West Bengal Forest Directorate have opened seven Exhibition-cum-Sale centres in different corners of the state for making floricultural materials readily available to public at reasonable price. These centres are at Purulia, Malda, Siliguri and Calcutta. The Wing has been organising Flower shows in South Bengal, North Bengal and in Calcutta since last three years, the object being to create interest and enthusiasm among the public towards the activities of the Wing and to secure their involvement in inculcating love for trees and green space.

(b) **Parks and Gardens under Calcutta Improvement Trust (CIT) :**

1. **Subhas Sarobar** : This breathing arena (Garden complex) was opened in 1965 by Sri P. C. Sen, the then Chief Minister of West Bengal. Located near the Bidhannagar (Ultadanga) railway station of Eastern Railway in the vicinity of Salt Lake Stadium (Yuva Bharati Kriangan), it covers an area of about 24 ha including 12 ha water surface. It is visited by a large number of visitors and local inhabitants throughout the year, especially during winter from 6 : 00 to 20 : 30 hrs. It has a collection of more than 2000 ornamental perennials including the following : *Araucaria cunninghamii* Ait., *Adansonia digitata* L., *Albizia lebbek* (L.) Benth., *Acacia auriculiformis* A. Cunn., *Bauhinia* sp., *Garbera tanghin* Hook., *Callistemon brachyandrus* Lindl., *Diospyros* sp., *Filicium decipiens* Thw., *Mimusops elengi* L., *Mussaenda philippica* A. Rich., *Parkinsonia aculeata* L., *Pterygota alata* (Roxb.), *Podocarpus* sp., *Polyalthia longifolia* (Scnn.) Thcw. var. *pendula*, *Ravenala madagascariensis* (J. E. Gmel.) Sonn., *Terminalia catappa* L. etc. It participates in exhibitions and Flower shows. Facilities for picnic in the three picnic rooms are available in the garden for public with a very nominal charge. Students and scholars of plant sciences are given facilities for botanical collections. The divisions under its control are : (1) Childrens' Park, (2) Ladies Park, (3) Deer Park, (4) Lake with a Boat House, and (5) a 4 ha Dumping Ground about 25 m above ground level.

POSTAL ADDRESS : Subhas Sarobar, 46, Suren Sarkar Road, Calcutta 700 010. Telephone : 35-5453.

STATUS : Autonomous Body (West Bengal Government undertaking), controlled by the Calcutta Improvement Trust (CIT).

MANAGEMENT : Assistant Engineer, Sub-Assistant Engineer (Arboriculture), Others : 46.

Besides Subhas Sarobar, a number of other greeneries in Calcutta are maintained by CIT which include the following :

2. **Rabindra Sarobar** : A very big area located in South Calcutta between Gol Park and Tollygurge railway station with plant collections exceeding 5000 with a nursery, green house and lily pool. Facilities of jolly ride on toy train, an open air theatre hall and a stadium are available inside the campus.

3. **Baghbazar Girish Park** : In north Calcutta.

4. **Jodhpur Park** : Santoshpur in south Calcutta.

5. **VII-M Park and Civic Centres** : At VIP Road, Ultadanga in north Calcutta.

(c) **Parks and Squares under Calcutta Municipal Corporation (CMC)** :

1. **National Congress Park** (Popularly known as Park Circus Maidan) : It covers an area of about 9 ha and is located at a very convenient locality in Calcutta, about 12 km from Calcutta air port, 4 km from Sealdah railway station and 7 km from Howrah railway station. The park is divided into two parts—a playground covering an area of 3 ha and the rest marked for the garden. There are two clubs within : (i) Calcutta Gymkhana Club—one of the oldest Tennis clubs of Calcutta and (ii) Bharati Sangha—an institution for physical culture. A Traffic Training centre for the school children controlled by the Calcutta Police is also located inside the park. Besides, a sizeable area has been earmarked for ladies and children. In spite of a number of establishments of diverse nature, the park is not lagging behind in plant collection. There are two nurseries where various types of saplings of annuals and perennials including avenue trees are raised. Plant collection includes trees, shrubs, creepers and climbers. There are about 300 big trees of different species which include among others the following : *Acacia auriculiformis* A. Cunn., *Adansonia digitata* L., *Albizia lebbek* (L.) Benth., *Artocarpus communis* Forst., *Alstonia scholaris* (L.) R.Br., *Butea monosperma* (Lamk.) Taub., *Bixa orellana* L., *Bauhinia variegata* L., *Cassia fistula* L., *C. nodosa* Buch.-Ham. ex Roxb., *Couroupita guianensis* Aubl., *Delonix regia* (Boj. ex Hook.) Raf., *Erythrina variegata* L., *Ficus elastica* Roxb., *Gliricidia sepium* (Jacq.) Walp., *Holarrhena antidysenterica* (Roth.) DC., *Jacaranda mimosifolia* D. Don, *Kigelia pinnata* DC., *Lagerstroemia speciosa* (L.) Pers., *L. thorelii* Gagnep., *Michelia champaca* L., *Peltophorum pterocarpum* (DC.) Backer ex K. Heyne, *Spathodea campanulata* Beauv. etc.

LOCATION : Calcutta, West Bengal.

POSTAL ADDRESS : Calcutta Municipal Corporation, 5, S. N. Banerjee Road, Calcutta 700 013. Telephone : 24-3471, 24-3472.

Soil : Clayey.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 22°30'N, Long. : 88°20'E, Alt. : 6.5 m, Temp. : 15° to 33°C (Min. in Dec.-Jan., Max. in May-Jun.),

*Rainfall* : 1032 mm (Min. in Dec., Max. in Jul.-Aug.).

**STATUS** : Calcutta Municipal Corporation (CMC).

**MANAGEMENT** : *Executive Engineer (Parks & Squares), Assistant Horticulturist, Others* : 9.

Besides National Congress Park, over 150 parks and squares, open spaces and round out islands are also maintained by Calcutta Municipal Corporation in Calcutta Metropolitan city. Out of these the important parks and squares having area of more than one acre (0.40 hectare) and comparable plant resources are listed below :

2. **Kumartuli Square** : (0.52 ha) at 18, Abhoy Mittra Street, Calcutta 700 005.

3. **Subhas Bag** : (0.60 ha) at 15/1/1, Ramkanto Bose Street, Calcutta 700 003.

4. **Bengal Gymkhana Garden** : (2.74 ha) at Cossipore, Calcutta 700 036.

5. **Baneswar Vidyalkankar Square** : (0.52 ha) at 21/1, Masjid Bari Street, Calcutta 700 006.

6. **Buto Kristo Paul Square** : (0.44 ha) at Buto Kristo Paul Avenue, Calcutta 700 005.

7. **Azad Hind Bagh** : (1.54 ha) at 5, Bidhan Sarani (at the Junction of Bidhan Sarani & Abhedananda Road), Calcutta 700 006.

8. **Hrishikesh Park** : (0.52 ha) at 57/1, Amherst Street (Raja Ram-mohan Sarani), Calcutta 700 009.

9. **Rabindra Kanan** : (1.40 ha) at 9, Beadon Square, Calcutta 700 006.

10. **Maharaja Jatindra Mohan Tagore Square** : (0.68 ha) at 2, Baisnab Sett Street, Calcutta 700 006.

11. **Marcus Square** : (2.20 ha) at 51, Madan Mohan Burman Street, Calcutta 700 007.



12. **College Square (Gol Dighi, Vidyasagar Udyan)** : (1.75 ha) at 53/1, College Street, Calcutta 700 012.
13. **B. B. D. Bag Square** : (5.75 ha) at 35, B. B. D. Bag, Calcutta 700 001.
14. **Mohammad Ali Park** : (0.44 ha) at 139, Chittaranjan Avenue, Calcutta 700 073.
15. **Santosh Mitra Square** : (1.02 ha) at 1, Ram Narayan Motilal Lane, Calcutta 700 012.
16. **Sraddhananda Park** : (0.63 ha) at 34, Surya Sen Street, Calcutta 700 009.
17. **Raja Subodh Mallick Square** : (2.25 ha) at 39, Nirmal Chandra Street, Calcutta 700 013.
18. **Convent Square** : (0.42 ha) at 13, Convent Road, Calcutta 700 014.
19. **Haji Md. Mohsin Square** : (1.65 ha) at 75/2, Rafi Ahmed Kidwai Road, Calcutta 700 016.
20. **Allen Garden** : (0.52 ha) at 28, Park Street, Calcutta 700 016.
21. **Auckland Square**: (1.04 ha) at 17, Rawdon Street (Sarojini Naidu Sarani), Calcutta 700 017.
22. **Loudon Square** : (0.72 ha) at 4, Loudon Street, Calcutta 700 016.
23. **Macpherson Square** : (0.41 ha) at 14/1, Loudon Street (Dr. U. N. Brahmachari Sarani), Calcutta 700 016.
24. **Minto Square (Bhagat Singh Udyan)** : (1.44 ha) at 5/1, Acharya Jagadish Chandra Bose Road, Calcutta 700 020.
25. **Victoria Square** : (1.32 ha) at 1, Albert Road, Calcutta 700 017.
26. **New Park** : (0.87 ha) at Middle Road, Calcutta 700 014.
27. **New Park** : (0.63 ha) at the Junction of C.I.T. Road and Deb Lane, Calcutta 700 014.

28. **Desapriya Park** : (2.72 ha) at 93/1, Rash Behari Avenue, Calcutta 700 029.
  29. **Harish Park** : (0.89 ha) at 61, Harish Mukherjee Road, Calcutta 700 025.
  30. **Jatin Das Park (Hazra Park)** : (0.90 ha) at 9/1, S. P. Mukherjee Road, Calcutta 700 025.
  31. **Kalighat Park** : (0.62 ha) at 125, S. P. Mukherjee Road, Calcutta 700 026.
  32. **Lansdowne Square** : (1.04 ha) at 49, Paddapukur Road, Calcutta 700 020.
  33. **Northern Park** : (1.93 ha) at 28, Allenby Road, Calcutta 700 020.
  34. **Southern Park** : (0.68 ha) at 35, Ramesh Mitra Road, Calcutta 700 025.
  35. **Sarat Chatterjee Park** : (0.49 ha) at 172/5, Rash Behari Avenue, Calcutta 700 029.
  36. **Woodburn Park** : (2.48 ha) at 2, Woodburn Park, Calcutta 700020.
  37. **Braunfeld Square** : (1.00 ha) at 21/1, Ekbalpur Lane, Calcutta 700 023.
  38. **Chetla Park** : (0.80 ha) at 30, Chetla Central Road, Calcutta 700 027.
  39. **Deshapran Sasmal Park** : (0.42 ha) at 19, Nepal Bhattacharjee Street, Calcutta 700 026.
  40. **Ushanath Sen Square** : (1.24 ha) at Hemchandra Street, Calcutta 700 023.
  41. **Watgunge Square** : (1.39 ha) at 92, Garden Reach Road, Calcutta 700 043.
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## **C. UNIVERSITY BOTANIC GARDENS**



## GUJARAT UNIVERSITY USSC BOTANIC GARDEN, AHMEDABAD

The garden has an area of 2.5 ha which contains more than 50 trees and shrubs, one green house, two photoperiodic chambers, experimental plots, fern house, aquatic plant collections in 4 small ponds, seed room and various other facilities for research and teaching purposes.

Established in 1964, researches are being carried out on plant physiology and treated seeds are supplied to farmers. It maintains seed exchange programme with France, Australia and other countries and desires to have further exchange programmes with other Botanic Gardens for improvement. The Herbarium on Cyperaceae is developing and the Library has more than 6000 books and journals.

LOCATION : Ahmedabad, Gujarat.

POSTAL ADDRESS : Department of Botany, School of Sciences, Gujarat University, Ahmedabad 380 009. Telephone : 442 578, Cable : UNI—SCIENCE, Ahmedabad.

SOIL : Sandy loam (pH 7.4).

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 23°03'N, Long. : 72°40'E, Alt : 10 m, Temp. : 25° to 40°C (Min. in Dec.-Jan., Max. in Apr.-May), Rainfall : 1600 mm (Min. in Jan.-May, Max. in Jul.-Sept.).

STATUS : Controlled by the Department of Botany, Gujarat University. Annual budget : Rs. 0.30 lakhs.

MANAGEMENT : Head of the Department, Scientific & Technical : 3, Others : 5 (malis).

## ALIGARH MUSLIM UNIVERSITY BOTANIC GARDEN, ALIGARH

This botanic garden probably covers the largest area amongst the University Botanic Gardens in India. Established in 1962 it extends to an area of about 38 ha including 12.5 ha water surface. Though it remains open from 8 : 00 to 16 : 00 hrs but the right of entry is reserved. February, March and October are known to be better times for visit. Nearest railhead is Aligarh.

Inside the campus there are 812 trees, 3882 shrubs and a large number of other foliage and flowering plants distributed in 120 species and 90 varieties including a rare species of *Ficus krishnae* A. DC. It contains one glass house. Researches are carried out on plant pathology, plant taxonomy and plant physiology. The garden is mainly maintained for teaching botany to students but every year during December and February, Flower shows are arranged by Central Departments of Land and Gardens of the University.

LOCATION : Aligarh, Uttar Pradesh.

POSTAL ADDRESS : Department of Botany, Aligarh Muslim University,  
Aligarh 202 001. Telephone : 4984.

SOIL : Sandy clay.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 27°30'N, *Long.* : 79°45'E,  
*Alt.* : 562 m, *Temp.* : 5° to 40°C (Min. in Dec.-Jan., Max. in May-Jun.),  
*Rainfall* : 100 mm (Min. in Nov.-Dec., Max. in Jul.-Aug.).

STATUS : Government of India. *Annual budget* : Rs. 30,000.

MANAGEMENT : *Head of Botany Department, Scientific & Technical* : 2,  
*Others* : 14.

## KULBHASKAR ASHRAM POST GRADUATE COLLEGE BOTANIC GARDEN, ALLAHABAD

This garden covering an area of 2 ha was established in 1960 in Din Dayal Upadhyay Marg (formerly Lowther Road), Allahabad, very near (about 3 km) to Allahabad Junction railway station (Northern Railway). Displaying a free style design the garden is open from sunrise to sunset drawing annual visitors of about 30,000 mostly students and academicians. Best time to visit is from October to March. Chief objective of the Institute is to impart undergraduate, post graduate and Ph.D. scholars in the field of Agricultural and Horticultural Sciences. Plant collection includes 500 trees and shrubs and a large number of other plants in 1000 species and 1500 varieties. There are 150 cultivars of *Rosa*, 60 varieties of *Chrysanthemum*, 50 varieties of *Bougainvillea*, 12 varieties of *Canna*, 10 varieties of *Jasminum* and 50 varieties of cacti and succulents. It has beautiful topiaries and Japanese gardens.

Some important collections are: *Allamanda cathartica* L., *Annona squamosa* L., *Antigonon leptopus* Hook. & Arn., *Belamcanda chinensis* (L.) DC., *Campsis grandiflora* (Thunb.) K. Schum., *Codiaeum variegatum* (L.) Blume (30 varieties), *Delonix regia* (Boj. ex Hook.) Raf., *Dombeya calantha* Schum., *Grevillea robusta* A. Cunn. ex R. Br., *Jacaranda mimosifolia* D. Don, *Mentha* (3 species), *Millingtonia hortensis* L.f., *Monstera deliciosa* Liebm., *Cocos nucifera* L., *Mussaenda luteola* Delile, *Parkinsonia aculeata* L., *Bauhinia* (4 species), *Plumeria alba* L., *P. rubra* L., *Peltophorum pterocarpum* (DC.) Backer ex K. Hayne, *Polyalthia longifolia* (Sonn.) Thw. var. *pendula*, *Punica granatum* L., *Milletia peguensis* Ali, *Pterospermum acerifolium* (L.) Willd., *Saraca asoca* (Roxb.) de Wilde.

The Institute imparts training on fruit preservation, kitchen garden and floral arrangement. A Mali training project has also been undertaken. It organises annual Flower shows and exchanges propagules. The Central Library has 10,000 collections including 2000 books and many reprints.

LOCATION : Allahabad, Uttar Pradesh.

POSTAL ADDRESS : Kulbhaskar Ashram Post Graduate College Botanic Garden, Allahabad 211 001.

SOIL : Gangetic alluvial.

GEOGRAPHIC AND CLIMATIC DATA : *Lat.* : 25°50'N, *Long.* : 81°95'E, *Alt.* : 92 m, *Temp.* : 4° to 47°C (Min. in Dec.-Jan., Max. in May-Jun.), *Rainfall* : 850 mm (Min. in Apr.-May, Max. in Aug.-Sept.).

STATUS : Government aided Private Body controlled by K. P. Trust under Kanpur University. *Annual budget* : Rs. 1 lakh.

MANAGEMENT : *Head, Department of Horticulture, Scientific & Technical* : 8, *Others* : 18.



## ROXBURGH BOTANIC GARDEN, UNIVERSITY OF ALLAHABAD, ALLAHABAD

This garden located very near to Prayag (Northern Railway) railhead, was established in 1923 in an area of about 1.2 ha with 30 sq m water surface. Informally designed, it is open from 10:00 to 17:00 hrs and exhibits better display during winter. It has to its credit 500 species of plants including 200 trees and shrubs, 50 species of gymnosperms, other ornamentals and indoor plants, one green house and one glass house. The cycad collections are considered to be one of the richest collections in the country. Chief objectives are teaching and researches in morphotaxonomy and cytology. There are 18000 specimens in the garden Herbarium.

LOCATION : Allahabad, Uttar Pradesh.

POSTAL ADDRESS : Department of Botany, University of Allahabad,  
Allahabad 211 001. Telephone : 51663.

SOIL : Gangetic alluvial.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 25°50'N, Long. : 81°54'E,  
Alt. : 92 mm above msl, Temp. : 4 to 47°C (Min. in Dec.-Jan., Max.  
in May-Jun.), Rainfall : (Mean annual) 850 mm (Min. in Apr.-May,  
Max. in Aug.-Sept.).

STATUS : Autonomous Body. Controlled by Department of Botany,  
Allahabad University. Annual budget : Rs. 6000.

MANAGEMENT : Head, Garden-in-Charge, Scientific & Technical : 1.

## **BOTANICAL GARDEN, GURU NANAK DEV UNIVERSITY, AMRITSAR**

Established in 1975 the garden occupies 9.5 ha of land including 0.8 ha water surface and is located in the University campus near Amritsar railway station. It has a collection of 5000 trees and shrubs and the plants are arranged in the plot as per Bentham & Hooker's system. The campus remains open from 8:00 to 19:00 hrs and enjoys better climate during February—April and October—December. Researches are carried out on plant physiology, breeding and cytology. The Herbarium contains 5000 specimens and the Library 9700 books and 85 research journals.

**LOCATION :** Amritsar, Panjab.

**POSTAL ADDRESS :** Department of Biology, Guru Nanak Dev University,  
Amritsar 143 005. *Telephone* : 51765.

**SOIL :** Saline.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 31°37' N, *Long.* : 74°55' E,  
*Alt.* : 232 m, *Temp.* : 0° to 48°C (Min. in Jan., Max. in May-Jun.),  
*Rainfall* : 700 mm (Min. in Jan., Max. in Jul.-Sept.).

**STATUS :** Controlled by Department of Biology, Guru Nanak Dev University. *Annual budget* : Rs. 0.15 lakhs.

**MANAGEMENT :** *Curator-cum-Lecturer, Scientific & Technical* : 6, *Others* : 9.

## BOTANIC GARDEN, MARATHWADA UNIVERSITY, AURANGABAD

Established in 1964 the 15 ha garden with 5 ha water area is attached to the Department of Botany where researches in angiosperm taxonomy, anatomy, cytogenetics, leaf protein physiology, aerobiology and plant pathology are being carried out. Nearest railhead is Aurangabad.

The rectangular area of the garden is divided into 7 main plots—eastern plot, south-eastern plot, oval garden, north-western plot, elephant grass plot, institutional forest and agricultural plot. It is kept open from 6:30 to 19:00 hrs and best time for visit is September-October.

Collection of plant wealth includes 504 species of academic interest, 102 species of ornamentals, 200 species of cacti and succulents, 48 species of special plants in nursery. Plants brought from Royal Botanic Gardens, Kew include 120 species, 23 hybrids of interspecific *Aloe* and 22 hybrids of intergeneric hybrids of Aloineae. It contains a green house, a glass house and a conservatory. Technologies developed are protein extraction from leaves and sampling of air spora. Monument of Charles Darwin is situated at central position. Materials are exchanged on request. Herbarium in the main building of the Botany Department contains 50,000 specimens, chiefly collected from Marathwada region. There are 4000 books in the departmental Library and the department subscribes to 72 research journals. Special laboratories and research plots are maintained for advanced study in leaf protein, green crop fractionation, cytogenetics, plant pathology and aerobiology. The institutional forest is raised over an area of 5 ha modifying silvicultural and plantation methods. Trees belonging to over 30 species are represented in the forest including fuel wood, timberwood, fodder, green manuring and minor produce yielding types.

LOCATION : Aurangabad, Maharashtra.

POSTAL ADDRESS : Botanic Garden, Marathwada University,  
Aurangabad 431 004. Telephone : 4431 (extn. 22) to 4437, Cable :  
MARATHWADA, Aurangabad.

SOIL : Rich in calcium and magnesium carbonate (pH 8.0-8.4).

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 19°53' N, Long. : 75°23' E,  
Alt. : 510 m, Temp. : 10° to 42° C (Min. in Jan., Max. in May), Rainfall :  
900 mm (Min. in Jan., Max. in Aug.).

STATUS : Controlled by Department of Botany, Marathwada University.  
*Annual budget* : Rs. 0.75 lakhs.

MANAGEMENT : *Head of the Department, Scientific & Technical* : 4, *Others* :  
25.

## **BOTANICAL GARDEN, GANDHI KRISHI VIGYANA KENDRA, BANGALORE**

This 26.5 ha formal garden established in 1971 near Bangalore city Yelahanka railway station in the campus of Gandhi Krishi Vigyana Kendra is divided into 10 blocks and is kept open from 8 : 00 to 17 : 00 hrs. Greatest floral display is seen during April to July and the best season to visit is during September-October.

The garden has about 1600 trees and shrubs and other indigenous and exotic plants in 550 species of botanical, horticultural and medicinal interest. A wide range of wild tropical trees and shrubs and species found in evergreen forest types of Karnataka are being collected and introduced here. It contains one green house, one arboretum and the Herbarium with about 6000 specimens. *Index seminum* has been published. Exhibitions are arranged occasionally. Researches are carried out on weeds and medicinal plants.

**LOCATION :** Bangalore, Karnataka.

**POSTAL ADDRESS :** Botanical Garden, College of Basic Sciences and Humanities, GKVK Campus, University of Agricultural Sciences, Bangalore 560 065. *Telephone :* 366753 (extn. 220), 30422, *Cable :* UNIVAGRIS, Bangalore.

**SOIL :** Red sandy loam on laterite bed.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 12°57' N, *Long. :* 77°35' E, *Alt. :* 930 m, *Temp. :* 15° to 33.4°C (Min. in Jan., Max. in Apr.), *Rainfall :* 891 mm (Min. in Jan., Max. in Oct.).

**STATUS :** Controlled by College of Basic Sciences and Humanities. *Annual budget :* Rs. 0.41 lakhs.

**MANAGEMENT :** *Director of Instruction (BS & H), Curator :* 1, *Scientific & Technical :* 2, *Others :* 12.

## MAHARAJA SAYAJIRAO UNIVERSITY BOTANICAL GARDENS, BARODA

Established in about 1885, this rectangular to semicircular garden extends to an area of about 10 ha with 8 ha water surface. It remains open from 6 : 00 to 18 : 00 hrs only to students and teachers. Floral display is at its peak from August to October and again from December to April. The garden is specially meant for teaching and research in undergraduate and postgraduate classes.

The garden has a collection of over 5000 trees and shrubs in about 500 species. It has 4 wire houses for ferns and other research materials. Research activities include floristics, tissue culture of medicinal and other economically important plants and ecology. It participates regularly in Flower shows. Exchange of materials is encouraged.

LOCATION : Baroda, Gujarat.

POSTAL ADDRESS : Garden Superintendent, Department of Botany, Faculty of Science, M. S. University of Baroda, Vadodara 390 002, Gujarat.  
*Telephone : 64779.*

SOIL : Loamy.

GEOGRAPHIC AND CLIMATIC DATA : *Lat. : 22°18' N, Long. : 73°15' E, Alt. : 34 m, Temp. : 5.8° to 43.0°C (Min. in Jan., Max. in May), Rainfall (Mean annual) : 960 mm (Min. in Sept., Max. in Jul.-Aug.).*

STATUS : Autonomous Body controlled by the M. S. University of Baroda. *Annual budget : Rs. 2 lakhs.*

MANAGEMENT : *Head, Department of Botany, Garden Superintendent, Others : 35 (including temporary labourers).*

## **BOTANICAL GARDEN, POST GRADUATE DEPARTMENT OF BOTANY, BHAGALPUR UNIVERSITY**

The garden has to its credit a good collection of plants including 14 species of gymnosperms and about 207 species of angiosperms with 71 species of trees, 78 species of shrubs, 46 species of climbers and 12 species of palms. Some interesting collections are : *Cinnamomum zeylanicum* Blume, *Couroupita guianensis* Aubl., *Ephedra* sp., *Erythrina cristagalli* L., *Ficus krishnae* A.DC., *Ginkgo biloba* L., *Grevillea robusta* A. Cunn. ex R. Br., *Terminalia bellerica* (Gaertn.) Roxb., *T. chebula* Retz., *Santalum album* L., *Strychnos nuxvomica* L. etc. Besides Herbarium building, other notable features located in the garden are : nursery, glass house, cactus house, green house, orchid house, seed house, rockery, experimental plot and collection of *Hibiscus* and medicinal plants.

**LOCATION :** Bhagalpur, Bihar State.

**POSTAL ADDRESS :** Department of Botany, Bhagalpur University,  
Bhagalpur, Bihar.

**SOIL :** Alluvial.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 25°15' N, *Long.* : 87°02' E,  
*Alt.* : 110 m, *Temp.* : 16.0° to 35.0°C (Min. in Jan.-Feb., Max. in May-  
Jun.), *Rainfall* (Annual) : 1000 to 2000 mm (Min. in Jan., Max. in Jul.).

**STATUS :** Controlled by Department of Botany, Bhagalpur University.

**MANAGEMENT :** *Garden Superintendent, Others* : 6.

## UTKAL UNIVERSITY BOTANIC GARDEN, BHUBANESWAR

Established in 1971 and extending over an area of 5 ha with 0.8 ha water surface, this garden is visited by a large number of visitors from 7 : 00 to 17 : 00 hrs especially during spring and winter. It has a collection of 1200 species, including 200 trees and shrubs, 300 varieties of other ornamentals and many common and rare plants belonging to various taxonomic groups. One green house is under construction. Researches are carried out on plant propagation and germplasm data bank. It participates in annual Flower show by Orissa Horticultural Society. Garden Herbarium contains 1000 specimens and Library 100 books. Nearest railhead is Bhubaneswar.

LOCATION : Bhubaneswar, Orissa.

POSTAL ADDRESS : Department of Botany, Utkal University, Vani Bihar, Bhubaneswar 751 004, Dist. : Puri. Telephone : 52520 (extn. 71).

SOIL : Hard laterite.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 20°14'-20°15' N, Long. : 85°50'-85°51' E, Alt. : 46 m, Temp. : 15.7 to 38.1°C (Min. in Jan., Max. in May), Rainfall : 1478 mm (Min. in Dec., Max. in Jul.).

STATUS : Controlled by Department of Botany, Utkal University.

MANAGEMENT : *Head of the Department, Others : 4.*



## **MAGADH UNIVERSITY BOTANICAL GARDEN, BODH GAYA**

Established in 1975 the garden has a 6.5 ha land area with facilities for irrigation, 15 km away from Gaya Junction railway station. Best time to visit is during winter from 10 : 00 to 17 : 00 hrs.

Plant wealth includes 500 trees and shrubs and other collections of botanical and horticultural interests in 250 species. One glass house is under construction and there is proposal for one green house too. The garden Herbarium is in the process of development and a departmental Library exists.

**LOCATION :** Bodh Gaya, Bihar.

**POSTAL ADDRESS :** P. G. Department of Botany, Magadh University,  
Bodh Gaya 824 234, Dist. : Gaya. *Telephone :* 835, *Cable :*  
MAGVARSITY, Bodh Gaya,

**SOIL :** Hard clayey.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 24°41' N, *Long. :* 84°58' E,  
*Alt. :* 131 m, *Temp. :* 10° to 42°C (Min. in Dec., Max. in May), *Rainfall*  
(Mean annual) : 1150 mm (Min. in Dec., Max. in Aug.).

**STATUS :** Controlled by Department of Botany, Magadh University.  
*Annual budget :* Rs. 1000.00.

**MANAGEMENT :** *Head of the Department, Scientific & Technical :* 2,  
*Others :* 7.

## **BURDWAN UNIVERSITY BOTANIC GARDEN, BURDWAN**

The garden with an area of 21 ha including 4 ha water surface is located in the University campus about 2 km away from Burdwan (Bardhaman) railway station, and is popularly known as 'Golapbag'

Established in 1964, it is a typical form of oriental gardening of the Mughal and is visited by about 3000 visitors annually from 10 : 30 to 17 : 30 hrs especially during winter months.

The plant wealth includes 500 trees and shrubs and a rich collection of other ornamental plants distributed in 200 species. Collection of roses and 200 years old 'Debdaru' and 'Mahogany' avenue delight the visitors. Inside the premises there are one glass house and three wire houses. Among the interesting objects, one island with a monument and two tombs showing Mughal architecture and relic of a zoo are worth seeing. It desires to get specimens in exchange of plants of Burdwan district only. Herbarium contains 5,000 specimens and the Library 2,500 books and 50 research journals. Field of research activities include plant physiology, taxonomy, ecology, cytogenetics and plant breeding, palynology, phycology, mycology, pathology and microbiology. Guest house facility is available.

**LOCATION :** Burdwan, West Bengal.

**POSTAL ADDRESS :** Department of Botany, Burdwan University, Burdwan. *Telephone* : 237173.

**SOIL :** Red laterite.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 23°16' N, *Long.* : 87°54' E, *Alt.* : 24 m, *Temp.* : 10° to 39°C (Min. in Dec.-Jan., Max. in May-Jun.), *Rainfall* : 1620 mm (Min. in Dec.-Mar., Max. in Jul.-Sept.).

**STATUS :** Controlled by Department of Botany, Burdwan University. *Annual budget* : Rs. 30000.00.

**MANAGEMENT :** *Head of Botany Department, Scientific & Technical* : 26, *Others* : 48.

**EXPERIMENTAL CUM BOTANIC GARDEN,  
DEPARTMENT OF BOTANY,  
UNIVERSITY OF CALCUTTA, CALCUTTA**

This garden extends to an area of about 2 ha including a tank of 0.4 ha and is located in the campus of University of Calcutta at Ballygunge Circular Road which is easily connected by road from Howrah, Sealdah and Ballygunge railway stations.

Established in 1918 the garden has mainly collections of angiosperms besides some species of gymnosperms, pteridophytes, bryophytes, mushrooms and algae. Some angiosperms of high altitude can also be seen here. One green house and one glass house are inside the campus. Field of research activities include cytology, tissue culture and cytotaxonomy, human chromosomes, pharmacology, microbiology, plant physiology, plant pathology, mycology and paleobotany. The tissue culture unit attached to the garden is of immense scientific interest. The Centre of Advanced Studies in Cytogenetics deserves special mention and researches of very high order in advanced technologies are being carried out. Herbarium and Library having rich collections are well maintained.

**LOCATION :** Calcutta, West Bengal.

**POSTAL ADDRESS :** Department of Botany, University of Calcutta, 35 Ballygunge Circular Road, Calcutta 700 019. *Telephone* : 47-3681 (extn. 5).

**SOIL :** Alluvial.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 22°30' N, *Long.* : 88°25'E, *Alt.* : 4 m, *Temp.* : 21° to 32°C (Min. in Dec.-Jan., Max. in Apr.-May), *Rainfall* : 1500 mm (Min. in Jan., Max. in Jul.-Aug.).

**STATUS :** Controlled by Department of Botany, University of Calcutta. *Annual budget* : Rs. 0.10 lakhs.

**MANAGEMENT :** *Professor and Programme Coordinator, Centre for Advanced Studies and Head of the Department, Scientific & Technical* : 4, *Others* : 10.

## CALICUT UNIVERSITY BOTANICAL GARDEN, CALICUT

It is an informal garden of 19 ha established in 1971 and is open from 10 : 00 to 17 : 00 hrs exhibiting beautiful floral display during September to November. It is connected by road from Calicut railway station.

The garden has a rich collection of 10,000 trees and shrubs and other plants of botanical interest distributed in 4000 species. Plants belonging to the families Zingiberaceae, Araceae, Apocynaceae, Asclepiadaceae and Bromeliaceae enrich the collections. It contains one green house and a conservatory and carries on researches on taxonomy and horticulture with emphasis on pineapple, banana and winged beans. It proposes to conduct a diploma course in Horticulture. The Herbarium contains 23000 specimens and the Library has 4860 books and 74 research journals.

**LOCATION :** Calicut, Kerala.

**POSTAL ADDRESS :** Department of Botany, Calicut University, Calicut 673 635. *Telephone : 75, Cable : UNICAL, Calicut.*

**SOIL :** Laterite red.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 11°40' N, Long. : 75°45' E, Alt. : 100 m, Temp. : 21° to 33.5°C (Min. in Jan., Max. in Apr.-May), Rainfall : 4000 mm (Min. in Jan.-Feb., Max. in Jun.).*

**STATUS :** Controlled by Department of Botany, Calicut University. *Annual budget : Rs. 0.10 lakhs.*

**MANAGEMENT :** *Head of the Department, Scientific & Technical : 3, Others : 14.*

## PANJAB UNIVERSITY BOTANICAL GARDEN, CHANDIGARH

Established in 1961 the garden in the University campus extends to an area of 6.5 ha including 0.4 ha water surface. The whole garden is divided into various sections and each section has a number of taxa in it arranged according to Bentham and Hooker's system of classification. In a separate arboretum tree species are grown. Distinct areas have also been earmarked for desert vegetation. Ferns are grown in the fern house and new seedlings are raised in the conservatory. People visit almost whole of the year except acute summer months from 8 : 00 to 17 : 00 hrs.

Present plant population consists of 540 species including 300 trees and shrubs, 255 cacti and succulents and a vast number of other plants of botanical and horticultural importance. A compiled list of plants consisting of angiosperms, gymnosperms and pteridophytes growing in the garden is available with the authorities. It has three green houses, two glass houses, one conservatory, a cactus house, lily pools and orchid house. The Herbarium and Library are attached to the Department. The chief objective of the Institute is academic. Nearest railhead is Chandigarh.

**LOCATION :** Chandigarh, Union territory of Chandigarh.

**POSTAL ADDRESS :** Department of Botany, Panjab University, Sector 14, Chandigarh 160 014. *Telephone : 22960.*

**SOIL<sup>\*</sup> :** Sandy loam.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 30°45' N, Long. : 76°45' E, Alt. : 340 m, Temp. : 13.5° to 33°C (Min. in Jan., Max. in Jun.), Rainfall : 1060 mm (Min. in Nov., Max. in Jul.).*

**STATUS :** Controlled by Department of Botany, Panjab University. *Annual budget : Rs. 0.30 lakhs.*

**MANAGEMENT :** *Head of the Department, Scientific & Technical : 2, Others : 19.*

**UNIVERSITY BOTANIC GARDENS,  
TAMIL NADU AGRICULTURAL UNIVERSITY (TNAU),  
COIMBATORE**

Established in 1906, this Institute is devoted to teaching, research and extension activities in agriculture and horticulture. The garden, a combination of formal and informal types in an area of 17.5 ha is open from 8 : 00 to 11 : 00 hrs and from 16 : 00 to 18 : 00 hrs and is visited by about 30,000 visitors annually from all walks of life. It exhibits greatest floral display during August and September and is located about 5 km away from Coimbatore Junction railway station.

The garden has to its credit plant wealth consisting of 300 species, 800 varieties and 1500 trees and shrubs with one green house, two glass houses and one conservatory. The main garden has under its control Department of Floriculture, Faculty of Horticulture, TNAU Coimbatore. Researches are carried out on commercial and ornamental flowering crops. Several improved strains/varieties of commercial and ornamental flower plants have been released by the Institute. Extraction procedure for floral concentrate/oil has been evolved and standardised. The garden functions as a part of the University and all its activities of teaching, research and extension are linked to the University's day-to-day activities. The Herbarium of the Botanical Survey of India is located in the campus of the TNAU to which this garden is attached. The University Library has full complement of books and journals collection with all facilities. It publishes *News letter*.

**LOCATION :** Coimbatore, Tamil Nadu.

**POSTAL ADDRESS :** Tamil Nadu Agricultural University, Coimbatore  
641 003, Tamil Nadu. *Telephone :* 35461, *Cable :* FARMVAR, Coimbatore

**SOIL :** Black soil and red loamy soil.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.:* 11°N, *Long. :* 77°E, *Alt. :* 426.72 m,  
*Temp. :* 17° to 39°C (Min. in Jan., Max. in May), *Rainfall :* 640 mm  
(Min. in Feb., Max. in Oct.-Nov.).

**STATUS:** Autonomous Body. Controlled by TNAU. *Annual budget :*  
Rs. 4 lakhs.

**MANAGEMENT :** *Dean (Horticulture), Professor & Head, Floriculture,*  
*Scientific & Technical : 4, Others : 1.*

**BOTANIC GARDEN, BIDHAN CHANDRA KRISHI  
VISWAVIDYALAYA (BCKV), NORTH BENGAL CAMPUS,  
COOCH BEHAR**

The garden established in 1979 covering an area of about 3 ha with 0.5 ha water surface is located very near to Cooch Behar (meter gauge) railway station and is about 10 km away from New Cooch Behar (broad gauge) railhead.

The objectives of the garden are teaching, research, communication to local people the aesthetic aspects of floriculture and ornamental horticulture and to develop the habit of growing plants for beautification and utility services.

This informal garden is open from 6 : 00 to 14 : 00 hrs on week days and is visited by a good number of people including students and researchers particularly during winter, the best time to visit. It has a total collection of 350 species of plants with more than 200 trees and shrubs. There is one green house and one conservatory. It participates in various Flower shows organised in several places of this area. The Library has a collection of about 100 books and 5 research journals.

**LOCATION :** Cooch Behar, West Bengal.

**POSTAL ADDRESS :** Bidhan Chandra Krishi Viswavidyalaya, North Bengal Campus, Cooch Behar 736 101, West Bengal. *Telephone : 702 385.*

**SOIL :** Acidic.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 26°20'N, Long. : 89°29'E, Alt. : 43.6 m, Temp. : 8° to 35.5°C (Min. in Dec.-Feb., Max. in Mar.-May), Rainfall : (Mean annual) 3450 mm (Min. in Dec.-Feb., Max. in Jul.-Sept.).*

**STATUS :** Autonomous Body. Controlled by Professor-in-Charge, BCKV, N. B. Campus, Cooch Behar. *Annual budget : Rs. 0.25 lakh.*

**MANAGEMENT :** *Garden-in-Charge cum Reader in Horticulture, Scientific & Technical : 3, Others : 7.*

## **BOTANICAL GARDEN, DELHI UNIVERSITY, DELHI**

The garden extends to an area of one ha and established in 1947 near Delhi railway station. Inside the premises there is a good collection of plants mainly utilised for research and teaching purposes with one green house and one glass house. The Herbarium has 13000 specimens and the Library has some good collection of books. Researches on tissue culture, embryology, population studies, taxonomy, ecology, gymnosperms, plant physiology etc. are carried out. The Department has published several text and reference books in Botany.

**LOCATION :** Delhi.

**POSTAL ADDRESS :** Department of Botany, Delhi University, Delhi 110 007.  
*Telephone :* 221421, 2511266/323, 228996.

**SOIL :** Sandy loam.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 28°31'N, *Long. :* 77°12'E, *Alt. :* 220 m, *Temp. :* 5° to 40°C (Min. in Dec.-Jan., Max. in May-Jun.), *Rainfall :* 666 mm (Min. in Oct. — Nov., Max. in Jul.).

**STATUS :** Controlled by Department of Botany, Delhi University. *Annual budget :* Rs. 18,000.

**MANAGEMENT :** *Head of the Department, Scientific & Technical :* 3, *Others :* 6.



## **BOTANICAL GARDEN (MOTIBAG), GUJARAT AGRICULTURAL UNIVERSITY, JUNAGADH**

The exact year of establishment of the garden is not known but it is well over 50 years, extending to an area of 30.3 ha including 19.3 ha irrigated field. The campus is 3 km from Junagadh railway station. Informally designed the garden is open from 8 : 00 to 20 : 00 hrs showing greatest floral display during winter and late summer.

The plant wealth includes 650 trees and shrubs and a large collection of ornamental plants distributed in 100 species. A good collection of *Cassia* species has recently been added. Other important plants include species of *Delonix*, *Ficus* and *Terminalia* and around 75 medicinal plant species of *Abrus*, *Andrographis*, *Bambusa*, *Curcuma*, *Datura*, *Gardenia*, *Plumbago* etc. Important specimens of cacti and succulents are maintained familywise in a cactus block. It has a well established nursery, an old swimming pool and sale counter for ornamental and fruit crops. Researches are carried out on genetics and plant breeding and plant morphology. The Herbarium has 1000 specimens and it publishes *Annual reports*.

**LOCATION :** Junagadh, Gujarat.

**POSTAL ADDRESS :** Department of Agricultural Botany, Gujarat Agricultural University, Junagadh 362 001. *Telephone :* 9321-23. *Cable :* AGRICAMP, Junagadh.

**SOIL :** Medium black.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 21°51'N, *Long. :* 70°50'E, *Alt. :* 10 m, *Temp. :* 9° to 41°C (Min. in Jan., Max. in Apr.), *Rainfall :* 800-900 mm (Min. in Sept., Max. in Jul.-Aug.).

**STATUS :** Controlled by Department of Agricultural Botany, Gujarat Agricultural University. *Annual budget :* Rs. 3.4 lakhs.

**MANAGEMENT :** *Head of the Department, Scientific & Technical :* 12, *Others :* 3.

## HORTUS MADURAIENSIS MU. VA. BOTANICAL GARDENS

(Madurai Kamaraj University Botanic Garden)

Established in 1973 the campus extends to an area of 16 ha including 0.4 ha water surface and is near to Madurai Junction railway station.

The layout of the garden is on a rectangular design with interesting pathways. It remains open throughout the year from 6 : 00 to 18 : 00 hrs and is visited by about 2000 visitors annually, mostly during November-December.

The plant wealth includes 3500 trees and shrubs and 25 varieties of other plants in 250 species. It maintains a good collection of local succulents and contains one green house and two glass houses. Facilities for tissue culture, temperature controlled rooms and weather stations are available. Taxonomic studies, biomass studies, gene bank and blue-green algal cultivation are carried out. Work on Nagamalai Flora has been taken up. It has developed biomass techniques and trains in biomass researches. Introduction of *Parthenium argentatum* A. Gray for rubber cultivation has been made. It participates in annual Flower show at Madurai. A green house with unusual architecture and artificial bat activity caves with instruments are interesting structures inside the campus. Herbarium contains 400 sheets of local flora and Library 153 books and journals.

LOCATION : Madurai, Tamil Nadu.

POSTAL ADDRESS : Division of Plant Sciences, Madurai Kamaraj University, Madurai 625 021. Telephone : 33171.

SOIL : Red laterite.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 9°58'N, Long. : 78°10'E, Alt. : 600 m, Temp. : 15° to 43°C (Min. in Jan., Max. in Jun.), Rainfall : 900 mm (Min. in Mar., Max. in Nov.).

STATUS : Controlled by Division of Plant Sciences, Madurai Kamaraj University. Annual budget : Rs. 0.07 lakhs.

MANAGEMENT : Head of the Division, Scientific & Technical : 2, Others : 7.

## **BOTANICAL GARDEN, MEERUT UNIVERSITY, MEERUT**

The garden, established in 1970 contains an area of 8.3 ha inside the University campus near Meerut City railway station and attains greatest floral display during February and March. The garden has been set up mainly for experimental purpose and teaching.

**LOCATION :** Uttar Pradesh.

**POSTAL ADDRESS :** Botany Department, Meerut University, Meerut.  
*Telephone : 75021/19.*

**SOIL :** Sandy.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 29°01'N, Long. : 77°45'E, Alt. : 300 m, Temp. : 5° to 45°C (Min. in Dec.-Jan., Max. in May-Jun.), Rainfall : 650 mm (Min. in Oct.-Nov., Max. in Jul.-Aug.).*

**STATUS :** Autonomous Body controlled by the Department of Botany, Meerut University. *Annual budget : Rs. 30,000.*

**MANAGEMENT :** *Head, Department of Botany, Gardener : 1, Others : 5.*

## BOTANIC GARDENS, PUNJABI UNIVERSITY, PATIALA

The 11.5 ha garden with sound irrigation facilities, is well laid out with concrete roads, zigzag paths, water garden, desert garden, arboretum, rosarium, canna, bamboo, cacti and succulent collections. The garden has 3 sections : (i) Main garden with arrangement of families according to Bentham and Hooker's system, (ii) Plant conservatory and (iii) Experimental garden and nursery. The campus is visited by about 2000 visitors annually, from 8 : 00 to 17 : 00 hrs especially during winter. The place is well connected by roads from Patiala and Rajpura railway stations.

Plant wealth includes 400 different species and varieties of trees, shrubs and herbs collected from various parts of the Himalayas and other Indian regions. These include high level conifers, pines, araucarias and junipers. Important plants are *Ficus elastica* Roxb., *Pterospermum lanceaefolium* Roxb., *Sapindus emarginatus* Vahl., *Acacia auriculiformis* A. Cunn., *Albizia lucida* Benth., *Melaleuca leucadendron* L., *Strychnos nuxvomica* L., *Oroxylon indicum* Vent., *Saptum insigne* Benth., *Ulmus integrifolia* Roxb., *Ephedra foliata* Boiss. *Couroupita guianensis* Aubl., *Pterygota alata* (Roxb.) R. Br., *Chryso-phyllum cainito* L. etc. Rare plants, *Ginkgo biloba* L., *Podocarpus gracilior* Pilger, *P. neriifolia* D. Don ex Lamb. *Pinus greggii* Engelmex Parl., *P. patula* Schiede & Deppe ex Schlecht, *P. carilaea* Morelet., *Ravenala madagascariensis* (J. F. Gmel.) Sonn., *Rauwolfia serpentina* Benth. ex Kurz., *Ficus krishnae* A. DC., *Ficus panduraefolia* Hort., *Lonchocarpus sericeus* H.B. & K., *Tylophora indica* Merrill. etc. are growing well. Two green houses, one glass house, tropical plant house and a conservatory are of special interest. Researches are carried out on horticulture, cytogenetics, taxonomy, ecology, physiology, forest, genetics and biosystematics. The garden has proposed to start a diploma course in horticulture and organise exhibitions and Flower shows. The Herbarium has 34,000 specimens and the Library 100 books and two research journals pertaining only to horticulture.

LOCATION : Patiala, Panjab.

POSTAL ADDRESS : Department of Botany, Punjabi University, Patiala 147 002. Telephone : 3261, Extn. 22.

SOIL : Sandy to sandy loam.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 30°20' N, Long. : 76°28' E, Alt. : 251 m, Temp. : 3° to 44°C (Min. in Jan., Max. in Jun.), Rainfall : 870 mm (Min. in May-Nov., Max. in Aug.).

STATUS : Controlled by the Department of Botany, Punjabi University,  
 Patiala. *Annual budget* : Rs. 0.4 lakhs.

MANAGEMENT : *Head of the Department, Lecturer cum Superintendent,*  
*Scientific & Technical* : 3, *Others* : 6.

## BOTANIC GARDEN, UNIVERSITY OF POONA

The 0.27 ha formal garden, established in 1961 is located near Kirkee railway station and is open from 8 : 00 to 17 : 00 hrs. September to October and again January to February reveal the months of greatest floral display.

The garden has a collection of 520 species of plants including 350 trees and shrubs, ferns, gymnosperms, orchids etc. These are maintained and developed to serve the chief objective of the Institute "Cultivation of rare botanical species necessary for teaching and research purpose" It has two green houses and one glass house. Researches are carried out on weed ecology, taxonomy of ferns and higher plants and anatomy of palms. Exhibitions are organised and other institutes are advised on garden designs. A Flower show is arranged once in three years.

**LOCATION :** University Campus, Pune, Maharashtra.

**POSTAL ADDRESS :** University of Poona, Pune 411 007. Maharashtra.  
*Telephone : 56061, Cable : UNIPUNA, Pune.*

**SOIL :** Pedocal—alkaline. Black cotton at few places.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 18°34' N, Long. : 73°53' E,*  
*Alt. : 578.5 m, Temp. : Min. 12°C (Dec.-Jan.), Max. 37.9°C (Apr.-May),*  
*Rainfall : 550 mm (Min. in Jan., Max. in Jul.).*

**STATUS :** Autonomous Body controlled by Botany Department, University of Poona. *Annual budget : Rs. 10,000.*

**MANAGEMENT :** *Professor-in-Charge, Others : 6.*

**BOTANICAL GARDENS, DEPARTMENT OF BIOSCIENCES,  
RAVI SANKAR UNIVERSITY, RAIPUR**

Established in 1979, it is a developing garden in 5 ha of land area including 2.5 ha of fenced forest and 2.2 ha of fenced area dealing with ornamental annuals, shrubs and trees in 75 species and 130 varieties. It shows better display of flowers from November to February. The Herbarium has 300 specimens. Nearest railhead is Raipur.

**LOCATION :** Raipur, Madhya Pradesh.

**POSTAL ADDRESS :** Department of Biosciences, Ravi Sankar University, Raipur 492 010. *Telephone : 23970.*

**SOIL :** Bhata (red iron nodulated).

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 21°14' N, Long. : 81°39' E, Alt. : 268 m, Temp. : 12.4° to 41.7°C (Min. in Dec., Max. in May), Rainfall : 1359 mm (Min. in Dec., Max. in Aug.).*

**STATUS :** Controlled by Department of Biosciences, Ravi Sankar University. *Annual budget : Rs. 0.25 lakhs.*

**MANAGEMENT :** *Head of the Department, Scientific & Technical, Others : 3.*

**EXPERIMENTAL GARDEN,  
DEPARTMENT OF BIOSCIENCES,  
SAURASHTRA UNIVERSITY, RAJKOT**

The garden was established in 1978 and covers an area of 20.2 ha containing about 100 species of plants, two green houses, one glass house, 900 herbarium specimens and more than 1000 books in the Library. Researches are carried on ecology. It is an experimental garden for carrying out research work. Best season for visit is July to August.

**LOCATION :** Rajkot, Gujarat.

**POSTAL ADDRESS :** Department of Biosciences, Saurashtra University, Rajkot 360 005. *Telephone :* 28991-98 (extn. 66).

**SOIL :** Gravelly sand to black cotton.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 22°18' N, *Long. :* 70°71' E, *Alt. :* 138 m, *Temp. :* 5.7° to 37.8°C (Min. in Jan., Max. in May), *Rainfall :* 587 mm (Min. in Sept., Max. in Jul.).

**STATUS :** Controlled by Department of Biosciences, Saurashtra University.

**MANAGEMENT :** *Head of the Department, Scientific & Technical :* 2, *Others :* 2.



**BOTANICAL GARDEN,  
UNIVERSITY OF SAUGAR, SAUGAR**

This garden is one of the richest amongst the University Botanical Gardens in India. The campus can be reached easily from Saugar railway station by road. Established in 1962 the garden extends to an area of 3.5 ha in two plots with a number of small aquaria in rectangular layouts on hill plateau. It remains open from 8 : 00 to 18 : 00 hrs and visited annually by about 10,000 visitors especially in winter.

The garden has a collection of more than 2000 species including 500 trees and shrubs. Some of the notable genera are : *Cocos*, *Borassus*, *Caryota*, *Areca*, *Pandanus*, *Dracaena*, *Yucca*, *Cordyline*, *Ravenala*, *Dillenia*, *Magnolia*, *Pereskia*, *Santalum*, *Salvadora*, *Leptadenia*, *Tylophora*, *Berberis*, *Prunus*, *Pyrus*, *Rauwolfia* etc. Many interesting gymnosperms such as *Ephedra foliata* Boiss. & Kotschy ex Boiss., *Agathis robusta* Hook., *Taxodium* sp., *Biota orientalis* Endl., *Ginkgo biloba* L., *Pinus roxburghii* Sargent grow very well in the garden. A number of ferns and other pteridophytes *Osmunda*, *Pteris*, *Regnellia* and *Psilotum* etc. grow well in fern houses. Cacti and many more plants of botanical and horticultural interests grow inside the enclosure. There are two green houses, two glass houses, two conservatories and rockeries. The climatic and edaphic conditions and location of Botanical Gardens on the plateau of hill are such that it is possible to cultivate plants of diverse climatic conditions. It has been possible to cultivate trees, shrubs and ferns from Himalaya and Western Ghat regions. On the other hand coastal and desert plants also thrive very well. Since the inception of the gardens, attempts are made to represent as many genera and species of plants as possible from different parts of the country. All local woody trees, shrubs and climbers are maintained in the Botanical Gardens. Most of the trees have attained a height of 10 to 15 m (specially *Agathis*, *Araucaria* and *Pinus*) in less than 20 years time. Researches are carried out on plant taxonomy of Compositae, Euphorbiaceae, Leguminosae, Gramineae and Cactaceae. Plant materials are supplied for teaching and research purposes and facilities are available for exchange of materials. It participates in district Plant shows and competitions. The Herbarium has more than 3000 sheets and the Library contains standard flora, indices of genera and species of plants, encyclopedias and 50 rare reference books on taxonomy. It has published a *Flora of Saugar* by Botanical Society of University of Saugar. Foreign research journals on plant taxonomy and morphology are received and kept in Herbarium Library.

LOCATION : Saugar, Madhya Pradesh.

POSTAL ADDRESS : Department of Botany, Dr. Harishingh Gour  
Vishwavidyalaya, Saugar 470 003, Madhya Pradesh. Telephone : 2075,  
PBX 30.

SOIL : Laterite on weathered basalt hill plateau.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 23°50' N, Long. : 78°40' E,  
Alt. : 550 m, Temp. : 18.5° to 34.5°C (Min. in Jan., Max. in May),  
Rainfall : 1248 mm.

STATUS : Controlled by the Department of Botany, Dr. Harishingh Gour  
Vishwavidyalaya. Annual budget : Rs. 0.75 lakhs.

MANAGEMENT : *Head of the Department, Teacher-in-Charge, Others : 10.*

## **GARDENS AT SANTINIKETAN, VISVA-BHARATI UNIVERSITY**

Santiniketan, a place about 3 km from Bolpur railway station was the site of Maharshi Devendranath Tagore's meditation. The Maharshi attained self realisation under a wayside 'Chhatim' tree (*Alstonia scholaris* R. Br.). In 1863 he purchased about 3 ha of land from the Sinhas of Raipur with this particular 'Chhatim' tree inside and built a house—'Santiniketan' (an abode of peace) nearby. This place was dedicated for worship of the people irrespective of caste, creed and religion. Actually 'Santiniketan' was primarily designed to be a very lonely centre of meditation surrounded by plants and gardens. In order to enrich the land suitable for plantation the Maharshi planted trees like mango, jamun, jackfruit, mahua, sal, coconut, palmyra palm, deodar, bokul, kadamba and some other shade giving and fruit bearing trees.

In 1901, Rabindranath Tagore, son of the Maharshi came to live in Santiniketan permanently with his family and founded a school 'Brahmacharyashram' Tagore was very much a lover of plants and gardens and was a permanent source of inspiration for developing and decorating the site with plantations. It was due to his efforts that the 'Sal avenue', 'Mango grove', and 'Madhabi bower' came into existence.

It may be worthwhile to discuss the gardens at Santiniketan spread over an area of 7.07 sq km under two broad heads : (1) University Gardens and (2) Gardens at 'Uttarayan' Complex.

### **(1) University Gardens :**

Since 1953 the already established gardens of the University have been taken over by the Central Government. The gardens are open to visitors from 6 : 30 to 17 : 00 hrs exhibiting best display during winter. A Flower show is arranged during 'Pous Utsav' (winter festival). The area is enriched with about 5000 plants excluding those in the nurseries and two glass houses. The objective is to maintain the traditional plantations, preservation of natural environment and recreation. Interesting buildings and monuments inside the garden include :

(i) Chhatimtala : the meditation seat of Maharshi, (ii) Santiniketan : a house built in 1863 by Maharshi Devendranath Tagore, (iii) Mandir : made of stained glass, built by Maharshi for prayer, (iv) Natun Bari : thatched house built by Tagore, (v) Deholi : two storeyed building built

in 1904 by Tagore. It was his residence for nearly a decade before leaving for 'Uttarayan', (vi) Sinha Sadan : Located south of 'Gour Prangan' and built in 1924 by Lord S. P. Sinha. It has a clock tower and a bell regulating the lives of ashramites and students, (vii) Hindi Bhavana, (viii) Cheena Bhavana, (ix) Patha Bhavana, (x) Sangeet Kala Bhavana, (xi) Nandan—the Art Museum including Art galleries, Library and Offices, (xii) Natyaghar etc. etc.

**LOCATION :** Santiniketan (Bolpur), West Bengal.

**POSTAL ADDRESS :** Santiniketan 731 235, Dist. : Birbhum. *Telephone :*  
751-756 Extn. 58, *Telex :* 203 201 RABI IN.

**SOIL :** Red laterite.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 23°40' N, *Long. :* 87°42' E,  
*Alt. :* 20 m, *Temp. :* 8° to 44°C (Min. in Jan., Max. in Jun.), *Rainfall :*  
1250 mm (Min. in Dec.-Jan., Max. in Jul.-Aug.).

**STATUS :** Controlled by Department of Horticulture, Visva-Bharati.  
*Annual budget :* Rs. 9 lakhs.

**MANAGEMENT :** *Superintendent (Horticulture), Scientific & Technical :* 3,  
*Others :* 50.

## (2) **Gardens at Uttarayan Complex :**

'Uttarayan' was Tagore's home in Santiniketan during the last years of his life. The name indicates not a single unit but the entire complex accommodating a number of buildings and museum of rare architectural designs viz, Udayana, Konarka, Shyamali, Punascha, Udichi, Chitrabhanu and Rabindra Bhavana (Vichitra)—the Museum. As the complex is located at the north side of the main ashrama, it is designated as 'Uttarayan'

This garden may be said to have been established in 1919 since the construction of the house (Konarka). The main garden complex covers an area of 4.8 ha where a number of beautiful well maintained gardens of various designs formal, informal, Japanese, Mughals and English co-exist. An artificial lake, 'Pampa' covers a small water area. Plantations inside the compound are very systematically arranged with identity marked on them. Since Tagore's last departure from 'Uttarayan' on 25th July, 1941 constant care has been taken to maintain and preserve the plants as per liking of the poet. The garden now serves as an educational, training and recreation centre of people of all walks of life.

From 6:30 to 17:00 hrs the complex is open to public. It is visited annually by nearly 2.5 lakh visitors with a major turn up during winter—the season of choicest floral display. Permanent plants inside are about 2000 which includes *Albizia lebbek* (L.) Benth., *Anthocephalus chinensis* (Lamk.) A. Rich. ex Walp., *Adenantha pavonina* L., *Acacia auriculiformis* A. Cunn., *Bauhinia purpurea* L., *Butea monosperma* (Lamk.) Taub., *Bombax ceiba* L., *Couroupita guianensis* Aubl., *Cassia fistula* L., *Cassia* sp., *Cinnamomum camphora* T. Nees & Eber., *C. zeylanicum* Blume, *Dalbergia sisoo* Roxb., *Delonix regia* (Boj. ex Hook.) Raf., *Grevillea robusta* A. Cunn., *Gardenia* sp., *Hibiscus* sp., *Ixora* sp., *Jacaranda mimosifolia* D. Don, *Jasminum sambac* Ait., *Lagerstroemia speciosa* (L.) Pers., *L. indica* L., *Lawsonia inermis* L., *Magnolia grandiflora* L., *Melaleuca leucadendron* L., *Mimusops elengi* L., *Mesua ferrea* L., *Murraya paniculata* (L.) Jack., *Nyctanthes arbor-tristis* L., *Pachira insignis* Savign., *Santalum album* L., *Saraca asoca* (Roxb.) de Wilde, *Spathodea campanulata* Beauv. etc.

Tagore was very fond of creepers and climbers. He coined beautiful poetic names for some of them. In the compound one may find *Aganosma caryophyllata* G. Don, *Beaumontia grandiflora* Wall., *Bignonia* sp., *Clitoria ternatea* L., *Gloriosa superba* L. ('Agnisikha' by Tagore), *Hiptage madablata* Gaertn., *Petrea volubilis* L. ('Nilmonilata' by Tagore), *Quisqualis indica* L., and a number of such plants.

The main garden behind the house 'Udayana' is of greatest charm and attraction. There is a nice stone image of the poet by Polish sculpture placed at a suitable location. A large number of fruit trees are found scattered all over 'Uttarayan'. An interesting feature of the garden at 'Udayana' is the fence made of creeping mango, litchi, safeda etc. On the north side of 'Vichitra' there is a vast orchard of forced climbing trees of mango, litchi, safeda, guava, Jamrool, *Citrus*, *Morus* etc., initiated by Tagore's son Rathindranath who was an Agriculturist. Inside the four green houses are housed a number of indoor plants in proper display. A number of popular and interesting publications related to 'Uttarayan' are available in the campus. Library facilities are obtained from Rabindra Bhavana Library. The Rabindra Bhavana (Vichitra), a two storeyed house near the entrance of 'Uttarayan' compound was founded in 1942 as a centre of Tagore Museum and Tagore studies.

LOCATION : Santiniketan (Bolpur), West Bengal.

POSTAL ADDRESS : Superintendent (Maintenance) Uttarayan Complex and Gardens, Rabindra Bhavana, Visva-Bharati, Santiniketan 731 235, Dist.: Birbhum. Telephone : 751-756, Telex : 203 201 RABI IN.

**SOIL :** Red laterite mixed with sand and gravels and granules of limonite, rich in humus content.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 23.40'N, *Long.* : 87.42'E, *Alt.* : 20 m, *Temp.* : 8° to 44°C (Min. in Jan., Max. in Jun.), *Rainfall* : 1250 mm (Min. in Dec.-Jan., Max. in Jul.-Aug.).

**STATUS :** Controlled by Superintendent (Maintenance), Uttarayan Complex, Visva-Bharati. *Annual budget* : Rs. 2 lakhs.

**MANAGEMENT :** *Superintendent* : 1, *Others* : 10.

**BOTANICAL GARDEN AND ARBORETUM, DEPARTMENT  
OF FORESTRY, HIMACHAL PRADESH KRISHI VISWA  
VIDYALAYA, SOLAN**

This informal garden of 2.5 ha was established in 1979 and is 15 km from Solan railway station. The divisions/field stations under its control are (i) Manali Arboretum, one of the best of its kind in the Himalayas, (ii) Fodder Arboretum, Dhaulakuan, H.P. and (iii) Fodder Arboretum, S. N. S. Nagar.

The main garden contains 600 trees and shrubs and other plants in 200 species and also some interesting collections viz. *Azalea*, *Camellia*, oaks, gymnosperms, tropical pines and *Bougainvillea*. A few more species in cultivation in the garden are : *Abies pindrew* Spach., *Castanea sativa* Mill., *Coelogyne barbata* Lindl., *Cryptomeria japonica* D. Don, *Cunninghamia sinensis* R. Br., *Dendrobium hookerianum* Lindl., *D. transparens* Wall., *Fagus sylvatica* L., *Ginkgo biloba* L., *Paphiopedilum* sp., *Pinus gerardiana* Wall. and eight species of *Quercus*. It aims at listing and collection of the indigenous and exotic species for introduction in the area. There is only one conservatory and 500 specimens in the garden Herbarium. Researches are carried out on revision of flora of the area and vegetative propagation with facilities for mist propagation chamber.

**LOCATION :** Solan, Himachal Pradesh.

**POSTAL ADDRESS :** Himachal Pradesh Krishi Viswa Vidyalaya, SMS Nagar, Solan 173 230. *Telephone :* 24, *Cable :* HIMKRISHI, Solan.

**SOIL :** Sandy loam.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 30°50'N, *Long. :* 77°08'E,  
*Alt. :* 1300 m, *Temp. :* 11.8° to 25.6°C. (Min. in Feb., Max in Jun.),  
*Rainfall :* 1096 mm (Min. in Apr.-May, Max. in Aug.-Sept.).

**STATUS :** Controlled by Himachal Pradesh Krishi Viswa Vidyalaya.

**MANAGEMENT :** *Assistant Scientist, Scientific & Technical :* 2, *Others :* 10.

## **DHAULADHAR BOTANICAL GARDEN AND ARBORETUM, PALAMPUR**

Dhauladhar botanical garden and arboretum was established in 1981 in Haryana Pradesh Krishi Viswa Vidyalaya (HPKVV) campus Palampur, District Kangra. This informal garden (1 ha) is near to Naranda railway station and is controlled by the Department of Forestry, HPKVV, Solan. The pinetum at Manali district, Kulu and the fodder arboretum at Dhau-lakuan, district Sirmom are also controlled by the Department of Forestry, HPKVV along with the above two Botanic Gardens.

The main garden has a collection of about 350 ornamental trees and shrubs including some interesting collections of gymnosperms, legumes, *Azalea* and orchids, distributed in about 100 species. One orchid house is under construction. The objective of the Institute is testing and collecting the indigenous and exotic species for introduction in the area. Greatest floral display is during March-April and July-August. Best time to visit is in March-April.

**LOCATION :** Palampur, Dist. : Kangra, Himachal Pradesh (in the HPKVV campus).

**POSTAL ADDRESS :** Department of Forestry, HPKVV, Palampur, Dist. : Kangra, Himachal Pradesh. *Cable :* HIMAKRISHI, Palampur.

**SOIL :** Clayey.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. :* 32°07'N, *Long. :* 76°33'E,  
*Alt. :* 1300 m, *Temp. :* 4.5° to 32.8°C (Min. in Jan., Max. in Jul.);  
*Rainfall :* 2729.4 mm (Max. in Aug.-Sept., Min. in Apr.-May).

**STATUS :** Autonomous Body, controlled by the Department of Botany, HPKVV, Solan, Himachal Pradesh.

**MANAGEMENT :** *Assistant Scientist, Scientific & Technical :* 1, *Others :* 6.



**UNIVERSITY BOTANICAL GARDEN, SOUTH GUJARAT  
UNIVERSITY, SURAT**

Established in 1978 the garden with an area of 1.6 ha including 1.2 ha water area is being developed. Situated near Surat railway station it has a collection of 300 species of plants including 700 trees, shrubs and some other ornamental and botanically interesting plants. The garden remains open from 9 : 00 to 17 : 30 hrs and attains greatest floral display in February. Researches are carried out on physiology and medicinal plants. Garden Herbarium has 5000 specimens.

**LOCATION :** Surat, Gujarat.

**POSTAL ADDRESS :** Department of Biosciences, South Gujarat University,  
Post Box 49, Surat 395 001. *Telephone* : 47141, 87149, *Cable* : SOGUNI.

**SOIL :** Black cotton and mixed alluvial.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 21°12' N, *Long.* : 72°52' E,  
*Alt.* : sea level, *Temp.* : 20° to 38° C (Min. in Jan., Max. in May-Jun.),  
*Rainfall* : 900-1200 mm (Min. in Oct.-Nov., Max. in Jul.-Sept.).

**STATUS :** Controlled by the Department of Biosciences, South Gujarat University. *Annual budget* : Rs. 0.1 lakhs.

**MANAGEMENT :** *Head of the Department*, *Others* : 2.

## **KERALA UNIVERSITY BOTANIC GARDEN, TRIVANDRUM**

Established in 1968, the garden covers an area of about 12 ha with 2 ha water reserves. Chief objectives are (i) botanical studies and research and (ii) preservation of germplasm of some economic, medicinal and horticultural plants and wild relatives of crops. The garden is located in the Department of Botany, University of Kerala, about 12 km away from Trivandrum railway station.

The plant wealth includes 1300 species and 350 varieties. There are 2 green houses. Researches are carried out on cytotaxonomy, chemotaxonomy and mutation breeding. Facilities are available on micropropagation and gamma shine unit. The Library has 5262 books and 20 research journals.

**LOCATION :** Trivandrum, Kerala.

**POSTAL ADDRESS :** Kerala University Botanic Garden, Kariavallam, P.O.: Trivandrum, Kerala. *Telephone* : 8301.

**SOIL :** Laterite loamy.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat.* : 8°29' N, *Long.* : 76°59' E, *Alt.* : 50 m, *Temp.* : 19.6° to 34.3°C (Min. in Dec., Max. in Mar.-Apr.), *Rainfall* : 2748 mm (Min. in Mar.-Apr., Max. in Jun.-Jul.).

**STATUS :** Autonomous Body. Controlled by Department of Botany, University of Kerala. *Annual budget* : Rs. 1.15 lakhs.

**MANAGEMENT :** *Professor and Head, Department of Botany, Scientific & Technical* : 28 (Research Fellows : 28).

**BOTANIC GARDEN, SCHOOL OF STUDIES IN BOTANY,  
VIKRAM UNIVERSITY, UJJAIN**

This botanic garden like many others is also in a developing stage. Presently it contains nearly 500 species of plants including trees, shrubs and other plants of botanical and horticultural interests, viz. *Biota orientalis* Endl., *Cycas circinalis* L., *C. revoluta* Thunb., *C. rumphii* Miq., *Ephedra foliata* Boiss. & Kotschy ex Boiss., *Zamia floridana* DC. (male and female plants), gymnosperms like *Cupressus*, *Juniperus* and *Pinus*, ferns, succulents and some interesting and rare plants eg. *Bauhinia vahlii* Wt. & Arn., *Clematis triloba* Heyne, *Dillenia pentagyna* Roxb., *Ficus krishnae* A. DC., *Magnolia grandiflora* L., *Rauvolfia serpentina* Benth. ex Kurz., *Tylophora tenuis* Bl. and *Wrightia tinctoria* Br. The garden Herbarium has about 2100 specimens. Best time to visit is winter.

LOCATION : Ujjain, Madhya Pradesh.

POSTAL ADDRESS : School of Studies in Botany, Vikram University, Ujjain  
456 001. Telephone : 3315, Cable : BOTANY - UNIVERSITY, Ujjain.

SOIL : Black cotton soil.

GEOGRAPHIC AND CLIMATIC DATA : Lat. : 23°11' N, Long. : 75°43' E,  
Alt. : 491.75 m, Temp. : 17.3° to 31.7°C (Min. in Jan., Max. in May),  
Rainfall : 894 mm (Min. in Mar.-Apr., Max. in Aug.).

STATUS: Controlled by School of Studies in Botany, Vikram University.  
Annual budget : Rs. 0.65 lakhs.

MANAGEMENT : Head of the Department, Teacher-in-Charge, Garden, Scientific  
& Technical : 1, Others : 7.

## **ANDHRA UNIVERSITY EXPERIMENTAL GARDEN, WALTAIR**

This is an associated botanic garden within the Botany Department campus. "Visakha Arboretum and Sylvicultural Research Centre" is now being developed in 50 ha area by the Andhra Pradesh Forest Department under the technical guidance of the Head, Botany Department, Andhra University.

The Herbarium has a collection of 14,500 specimens in 500 species. Researches are carried out on biosystematic studies on wild species in relation to taxonomy and collection and study of chemical constituents of selected medicinal and poisonous plants. Nearest railhead is Waltair.

**LOCATION :** Waltair, Andhra Pradesh.

**POSTAL ADDRESS :** Department of Botany, Andhra University, Waltair, Visakhapatnam 530 003.

**SOIL :** Alluvial.

**GEOGRAPHIC AND CLIMATIC DATA :** *Lat. : 17°44' N, Long. : 83°23' E, Alt. : 30 m, Temp. : 20° to 32.5°C (Min. in Dec.-Jan., Max. in Apr.-Jul.), Rainfall : 1400 mm (Min. in Dec.-Jan., Max. in Jul.).*

**STATUS :** Controlled by Department of Botany, Andhra University.

**MANAGEMENT :** *Head of the Department, Scientific & Technical : 1, Others : 20.*

## UNIVERSITY BOTANIC GARDENS IN FORMATIVE OR DEVELOPING STAGES

- (i) **Botanic Garden, University of Garhwal, Srinagar,** Srinagar 246 174, U.P. *Telephone* : 138, is in a formative stage and will take shape in a couple of years.
- (ii) **Botanic Garden, University of Jabalpure, Pachpedi, Jabalpure** 482 001. *Telephone* : 23567-69 (Extn. 41) received some funds from University Grants Commission (U. G. C.) for developing the garden in more than 0.8 ha of land already earmarked for the purpose. A small Herbarium has been developed.
- (iii) **Botanical Garden, School of Life Sciences, Jawaharlal Nehru University, New Mehrauli Road, New Delhi** 110 067. *Telephone* : 652282, 652114, *Cable* : JAYENU, is in the process of establishment.
- (iv) **Botanic Garden, Ranchi University, Ranchi** 834 008. *Telephone* : 22073 is in a developing stage.
- (v) **Bharathiar University Botanic Garden, Coimbatore, Tamil Nadu** is in a formative stage.
- (vi) **Botanical Garden, North Eastern Hill University, Shillong** is also in a formative stage.



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