

Revised Guidelines and Proforma for Assistance to Botanic Gardens





BOTANICAL SURVEY OF INDIA

August 2023









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Botanical Survey of India Ministry of Environment, Forest and Climate Change

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Front cover: A view of King Lake in AJC Bose Indian Botanic Garden, Howrah.

CONTENTS

	Message	v
	Foreword	vii
	Preface	ix
1.	Introduction	1
2.	Rationale of Assistance to Botanic Gardens (ABG) Programme	1
3.	Aims and Objectives	2
4.	Eligibility Criteria for Receiving Grant	2
5.	Process for Receiving Grant	3
6.	Terms and Conditions under the Programme	5
7.	Documents to be attached	6
8.	Role of Botanical Survey of India as Implementing Agency	6
	Appendices	
9.	Appendix-I: Proforma for submission of Proposal	9
10.	Appendix-II: Proforma for submission of Preliminary cum Feasibility Report of the Botanic Gardens	11
11.	Appendix-III: PFMS Registration / Bank Details of the Agency/Organisation	12
12.	Appendix-IV: Proforma for Submission of Utilization Certificate	13
13.	Appendix-V: Proforma for Submission of Expenditure Statement	15
14.	Appendix-VI: Proforma for Submission of Progress Report	16
15.	Appendix-VII: Proforma for Submission of Evaluation Report	18
16.	Appendix-VIII: Addresses of the Director and Nodal Officer of Botanical Survey of India, Headquarters	19







सचिव भारत सरकार पर्यावरण, वन और जलवायु परिवर्तन SECRETARY GOVERNMENT OF INDIA MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE



In the last three decades, several initiatives were taken globally to understand the impact of biodiversity loss in the functioning of ecosystems and their ability to provide societal benefits for human wellbeing. These studies not only emphasize the impacts on diverse life forms of the ecosystems but also how to conserve this natural treasure both in-situ and ex-situ for posterity. Keeping in mind the pressing environmental crises of climate change, biodiversity loss; conservation of threatened plants and need for public awareness have been prioritised. In this regard, conserving plants in different Botanic Gardens is one of the finest approaches to ensure towards safekeeping the plant diversity.

With added capacity, unparalleled set of skills, facilities and infrastructure Botanic Gardens have been self-assured through time and play a key role in conservation, cultivation and propagation of a wide range of threatened plants. Besides, they also play a pivotal role in taxonomic research, reproductive biology and ecological assessment. Botanic Gardens preserve many wild germplasm, which have never been in cultivation. Botanic Gardens also play an essential role in species recovery programmes and reintroduction of plants into the wild.

I am happy to know that, under the "Assistance to Botanic Garden" programme initiated during 1992, more than 300 botanic gardens have been funded for conservation research, capacity building and knowledge development. Recognizing the country's responsibility in the post Convention on Biological Diversity (CBD) era, we need to develop more gardens in different phytogeographical regions. At least 70% native plant species of the country need to be brought under the umbrella of ex-situ conservation in botanic gardens.

I am sure that under this revised guidelines for Assistance to Botanic Garden, Institutes and Universities will be able to augment their infrastructural facilities and do effective research in biodiversity conservation and dissemination of information.

(Leena Nandan)

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FOREWARD

In the recent past, serious concerns have been raised about the habitat degradation, spread of invasive species, resource over-exploitation, and unprecedented biodiversity loss due to man made disturbances. Plants are essential for life that reinforces key to solving major challenges in food security; health care, energy and water scarcity etc., however thay are dwindling in their natural habitat. In the post 2020 biodiversity framework much emphasis was given on conservation and rehabilitation of plant, their habitat and ecosystem as a whole in a holistic manner.

The National Environment Policy strongly envisages that, there is a need for enhancement of ex -situ conservation of genetic resources in designated Botanical Gardens or Gene Banks across the country. Target 8 of the Global Strategy for Plant Conservation aims to bring at least 75 per cent of threatened plant species in ex situ collections, preferably in the country of origin. It is well known that, botanic gardens make a significant contribution in recovery and restoration programmes, creating public awareness and education and institutional networking for ex situ conservation of threatened, endemic, and wild plant genetic resources.

I am delighted to present the revised guidelines of the Assistance to Botanic Gardens which mainly aims at one time financial assistance to Botanic Gardens including Lead Botanic Gardens in different phytogeographic zones to accelerate the process of conservation and multiplication of threatened and endemic species. The augmentation of the infrastructure facilities as well as manpower in the centres of ex-situ conservation will definitely attract more stakeholders for undertaking effective R&D and also dissemination of information in a holistic manner.

This is also to place on record due appreciation of efforts made by Dr. A.A Mao, Director, Botanical Survey of India as well as the members of the Expert Group on the "Assistance to Botanic Gardens" programme, Dr. S. S. Dash, Scientist -F and Dr. Sandeep Chauhan, Scientist -F for their contribution revising this guidelines.

(Nameeta Prasad)



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डा. ए.ए. माओ _{निदेशक} **Dr. A.A. Mao** Director



भारतीय वनस्पति सर्वेक्षण Botanical Survey of India



PREFACE

Botanic gardens present excellent models for ex-situ conservation of plant genetic resources. A planned botanic garden offers many solutions to develop plant conservation strategy and act as an important place for conservation education including awareness about indigenous and economic plants. These gardens not only provide scope for germplasm conservation of economically important plant species, but also maintain the gene pool of native wild species which have become threatened due to various reasons. Botanic gardens often serve as rehab center where plants from different agroclimatic conditions are rescued and acclimatized. They also support developing propagation techniques, seed banks and models for climate change studies.

With such multifaceted utility, the importance of developing model botanic gardens has been realized by the Ministry of Environment, Forest and Climate Change, Government of India. The ministry has been providing financial support to botanic gardens and also to augment the infrastructure of existing botanic gardens across the country for taking ex-situ conservation studies on threatened and economically important plants.

The financial support is being provided under a grant-in-aid scheme "Assistance to Botanic Gardens" aims at promoting and accelerating conservation research involving threatened and endemic plants, mass multiplication, development of seed banks and arboreta, demonstration and dissemination of knowledge and planting materials. Presently the scope has further been expanded to establishing linkage of conservation and livelihood generation.

Botanical Survey of India has been coordinating this grant-in-aid scheme and has developed a list of threatened and endemic plants in different phytogeographic regions of the country and through its nodal and regional offices, BSI has been providing advice to the project proponents in these aspects. The present "Guidelines (revised) for Assistance to Botanic Gardens for Multiplication, Propagation and ex-situ Conservation of Indigenous Plants of India" will provide the details on aims & objectives, eligibility criteria for lead & smaller botanic gardens, terms and conditions, maintenance & sustainability, proforma for submission of proposals etc.

It is expected that this revised guideline would be used meticulously by the stakeholders for formulating meaningful and output oriented research proposals for ex-situ conservation of threatened plant species in botanic gardens.

I appreciate the efforts put by Dr. S.S. Dash, Scientist F, Dr. Sandeep Chauhan, Scientist F and Dr. Sudhir Kumar Yadav, Botanist of Botanical Survey of India to bring out these guidelines and also their constant engagement on this aspect.

(A.A. Mao)

INTRODUCTION

Plants are the essential part of biodiversity and provide not only aesthetic, cultural and economic benefits to mankind, but also provide food, medicine, shelter to millions of people and ecosystem services worth of several billion crores of rupees annually. Their role in maintaining ecosystems is critical for all life on earth. This important resource is facing unprecedented loss due to various factors. The well-being of human kind and the future economy of any country will depend on their available bio-resources. Therefore, conservation of plant diversity in situ and ex situ modes, is the need of the hour for use of posterity.

The doctrines of Global Strategy for Plant Conservation (post 2020 GSPC) support the 2050 vision of the CBD where biodiversity maintains ecosystem services, sustains a healthy planet and delivers benefits essential for all people with a vision "a world living in harmony with nature by 2050". The GSPC, has provided a framework through 16 result-oriented targets aimed at conservation activities of botanic gardens throughout the world. Target 8 aims to bring at least 75 per cent of threatened plant species in ex situ collections, preferably in the country of origin, and at least 20 per cent available for recovery and restoration programmes, Target 14 relates to creating public awareness and education on importance of plant diversity and the need for its conservation; while the Target 16 relates to institutional networks and partnerships for plant conservation at national, regional and international levels to achieve the targets of this Strategy. Strengthening ex situ conservation is also one of the essential components of India's National Biodiversity Strategy and Action Plan

Objectives of Global Strategy for Plant Conservation

Objective I	Plant diversity is well understood, documented and recognized;
Objective II	Plant diversity is urgently and effectively conserved;
Objective III	Plant diversity is used in a sustainable and equitable manner;
Objective IV	Education and awareness about plant diversity, its role in sustainable livelihoods and importance to all life on Earth is promoted
Objective V	The capacities and public engagement necessary to implement the Strategy have been developed.

(NBSAP). Article 6 (General Measures for Conservation and Sustainable Use), Article 7 (ex-situ Conservation), Article 12 (Education and Awareness) and Article 15 (Role of Botanic Gardens of the world) of CBD highlights the need for strengthening botanic gardens in general.

2.RATIONALE OF ASSISTANCE TO BOTANIC GARDENS (ABG) PROGRAMME

India is a signatory to the Convention on Biological Diversity (CBD) and is committed to achieve the targets of ex-situ conservation under Articles 6, 7, 12 and 15 of the CBD in a well-structured manner. The Ministry of Environment, Forest and Climate Change (MoEF&CC), Govt. of India initiated a grant-in-aid programme "Assistance to Botanic Gardens (ABG)" in 1992. The programme was introduced to facilitate botanic gardens in different phyto-geographical regions for ex-situ conservation and multiplication of threatened and endemic plants, mass multiplication of threatened, economic and high value species. The other activities under this programme include demonstration and knowledge dissemination, exchange of live materials and seeds, making a linkage between different botanical gardens for conservation, and plant-based research for adaptability studies.

Under the scheme, one-time financial assistance is provided to organizations maintaining Botanical Gardens for strengthening their infrastructural facilities; facilitate conservation, propagation of threatened and endemic plant species, and undertaking capacity building programmes. The programme envisages building referral model centres for ex-situ conservation in the different phyto-geographical regions through a network of lead botanic gardens¹ and small botanic gardens². These botanic gardens are envisaged to serve as important nodal agencies and develop network among themselves in terms of exchanging knowledge, plant material of the identified species and also to ensure maintenance of plant population. Till now, more than 350 Small Botanic Gardens and 18 Lead Botanic Gardens have benefited by this scheme. In 2020, the programme was made into a non-scheme and funding henceforth was provided from the budget of BSI directly. All the data pertaining to endangered, threatened and endemic species, standard herbarium information, population status, habitat characteristics and uses of plants etc., generated from the project shall be archived in a data bank of Botanical Survey of India and shall be made available to the public based on laid down terms and conditions of use. The periodic and final reports submitted by the grantees to the funding agency will be uploaded to a dedicated website and made available to the public.

^{1.} A lead botanical garden should have at least 10 acres or more of land

3. AIMS AND OBJECTIVES

- i. Ex-situ conservation and multiplication of selected threatened and endemic plants of the region.
- ii. Ex-situ conservation of selected wild-relatives of crop plants.
- iii. Development of nurseries for mass multiplication and development of species-wise plant propagation techniques.
- iv. Improvement of identified infrastructure facilities, equipment for conservation, and manpower for maintenance of gardens.
- v. Distribution/exchange of multiplied plant material to other Botanic Gardens/ Institutes.
- vi. To promote education and public awareness on plant diversity, threatened and endemic species by means of organising seasonal events and theme based activities.
- vii. To explore scope for revenue generation services through sale of seeds, saplings, flowers, mementoes, souvenirs etc.

4. ELIGIBILITY CRITERIA FOR RECEIVING GRANT:

General

- i. The grantee institute must have expert/group of experts in taxonomy/horticulture research. This should be substantiated by a good record of taxonomic research/publications, and evidenced experience in various aspects of conservation.
- ii. Institutes with proven track record in undertaking conservation and propagation of indigenous, particularly threatened and endemic species will be given priority.
- iii. Preference shall be given to Botanic Gardens/ Centres of conservation from unexplored and under explored regions/sub-regions and when partial cost of expansion of existing gardens will be met by the grantee institutes.
- iv. The assistance will not be given to those institutes, who have already received funds for the same purpose from other agencies/schemes and have a track record for not utilizing the fund for the purpose for which it was sanctioned.
- v. Under the said programme, no proposal for development of new botanic gardenswill be accepted. The assistance is given only to existing gardens where partial infrastructure is available.
- vi. The grantee institute needs to clearly explain in the proposal the detailed plan for the sustainability of the garden once the fund is stopped.

A. For Small Botanic Garden

- i. **Definition**: Small botanic gardens are botanic gardens owned by Universities, Research Institutions/ Organizations, Horticulture departments and Degree Colleges with not less than 2 acres of land, preferably 5 acres of land exclusively for the purpose of botanic garden.
- ii. Funding criteria: The upper limit for funding will be within the range of 30-40 Lakhs for three years, which includes funding under the components of Research & Development (40 per cent) Infrastructure augmentation (including upgradation of the interpretation centre) (30 per cent); Awareness building (15 per cent) and other costs/contingency: (15 per cent) of the total grant.

[*Note*: Civil construction work should not be more than 30% of the total cost. The original estimates based on latest available Schedule of Rates (SOR) of State PWD or CPWDs to be submitted by the organization signed not below the rank of the Executive Engineer and duly endorsed by the Head of the Institute/Registrar of the University while submitting the proposal.]

B. For Lead Botanic Garden

i. Definition: Lead Botanic gardens are Botanic Gardens owned by Universities, Research Institutions/ Organizations, State Forest/Environment/Science & Technology/ Agriculture/ Horticulture departments preferably with 10 acres or more of land exclusively for the purpose of botanic garden. Each of the lead gardens is expected to act as referral nodal agency for other botanic gardens in the region, with respect of authentic plants identification, documentation of threatened/economical plants/medicinal plants/ highly exploited plants, and endemic plant resources of the region. These gardens are also expected to serve as a centre of training, ex-situ conservation, capacity building, rehabilitation and recovery programmes for small botanic gardens.

[*Note*: An Expert Group constituted by Ministry under the programme will look into the suitability in terms of adequate infrastructure, laboratory facilities, areas and expertise in the field of taxonomy and conservation. Based on the recommendations of the Expert Group, the Lead Botanic Gardens will be approved by the Ministry)].

 Funding criteria: The upper limit for financial support for Lead Botanic Garden will be within the range of 100-125 Lakhs for 5 years. The funding will be for components like Research & Development (35 per cent), Infrastructure augmentation (including upgradation of the interpretation centre) (30 per cent) (including construction provision for scientific equipment), Manpower (20 per cent) (Including research staff and support staff); contingency 10 per cent. Other cost and training (5 per cent).

[*Note*: Civil construction work should not be more than 30% of the total cost. The original estimates based on latest available Schedule of Rates (SOR) of State PWD or CPWDs to be submitted by the organization signed not below the rank of the Executive Engineer and duly endorsed by the Head of the Institute/Registrar of the University while submitting the proposal. The guidelines on emoluments and other service conditions for Research personnel and support staff would be governed by the rules applicable on research personnel working in R&D programmes of the MoEF&CC)

5. PROCESS FOR RECEIVING GRANT:

A. Submission of Proposal

- i. An open advertisement would be placed on the website of BSI as well as Ministry for submitting proposals for receiving assistance under the ABG programme.
- ii. Five (5) copies of the proposal in the prescribed pro- forma (Appendix-I) formulated as per the guidelines to be submitted to the Director, Botanical Survey of India, CGO Complex, 3rd MSO Building, DF Block, Sector -1, Salt Lake City, Kolkata 700 064, W.B. The proposals can also be mailed to: tech@bsi.gov.in

[*Note*: The 1st copy of the proposal should contain detailed estimates, drawing etc., with regard to civil works and remaining 4 copies should contain only abstract of the estimates of civil work. All eligible organizations/institutions may contact the Director, Botanical Survey of India, Kolkata or Nodal Officer, Assistance to Botanic Garden, Technical Section, BSI (HQ), Kolkata for any clarification with respect to guidelines and pro forma (also see www.bsi.gov.in)].

B. Selection Process:



C. Process for Approval of Proposal

- i. The proposals received, will be scrutinized by BSI to check if the proposal is prepared as per the guidelines or not.
- ii. Before the sanction of the grant, physical verification would be carried out by the Director, Botanical Survey of India or his representative to examine and submit a feasibility report of the garden.
- iii. If the proposal meets the criteria and contains the required documentation, the detailed proposal will be sent to the Expert Group for scrutiny.
- iv. The Expert Group/committee constituted by the Ministry and will consist of Additional Secretary/ Joint Secretary (Chairperson), two expert members, Additional D.G. (FC), Director (BSI), one nonofficial member.
- v. Along with the detailed scrutiny and the budget estimates, BSI will place the proposals before the Expert Committee. During scrutiny of the proposal by the Expert Group, the Principal Investigator (PI) may be invited for presentation/discussion if necessary.
- vi. The proposal must contain a list of species to be conserved in the garden. This should include at least 30 per cent of tree species, 50 per cent of shrub species including lianas and 20 per cent of herb/climber species introduced, conserved and maintained in the garden. These species should be maintained at any point of time and in case of any mortality, the species should be replaced immediately. The list of species needs to be vetted by the Expert Group.
- vii. If any recommendations of the Expert Group, the PI needs to appropriately incorporate and submit the revised proposal to the Director, Botanical Survey of India.
- viii. On the recommendations of the Expert Group and approval of the Secretary, MoEF&CC, the Director, BSI, will submit the revised proposals for obtaining concurrence of IFD of the Ministry.
- ix. Once the concurrence is obtained from IFD, Ministry will issue the authorization letter to Pay and Account officer (BSI/ZSI), Kolkata and with a direction to Director, BSI for release of funds to the respective Botanic Gardens under the programme.
- x. Funds will be released to the gardens in a phased manner, with 40 per cent of funds to be released in the 1st year, 40 per cent in 2nd year, and 10 per cent in the

3rd year. Release of funds will be based on submission of Utilization Certificates (UC), Statements of Expenditure (SE), and Annual Progress Report (APR) to Director BSI who will forward request of release of subsequent grants, along with comments of Expert Group and copy of report of the Monitoring Committee to the Ministry for release of further instalments. The remaining 10 per cent will only be released after the submission of the consolidated SE, UC, Final Technical Report (FTR) and ensuring the objectives of the programme have been achieved.

xi. Decisions for extension of projects shall rest with the Expert Group, on the basis of reports submitted by the Monitoring committee and satisfactory achievement of all objectives and deliverables. The extension may be given without any cost escalation.

D. Process for Monitoring

- I. The Director, BSI would set up a Monitoring Committee to monitor the physical progress of the projects. The Monitoring committee would be constituted for a period of 3 years and will consist of Scientists of BSI and a 3rd party representative (Preferably a Professor or a Senior Scientist of other scientific institute) who will visit the site in every 6 months and submit Appendix-VII to the Director, BSI who will place it before the Expert Group.
- ii. All the UCs, SEs and APRs (with photographs of conserved plants indicating latitudes and longitudes) would be submitted to Director BSI.
- iii. The Director, BSI would submit to the MOEF & CC duly examined UCs, SEs and APR with his recommendations for release of funds out of allocation made by the Ministry for the programme during the financial year.
- iv. The Expert Group will meet once a year to review the reports submitted by the Monitoring Committee and suggest, any course of corrections (if required) / recommend fund release / extension. If the progress is unsatisfactory, the Expert Group may withhold the disbursal of funds.
- v. The annual progress of the garden may also be monitored annually by a 3rd party expert as designated by the Director, Botanical Survey of India.
- vi. The grantee organisation will furnish half yearly and annual progress report of physical and financial progress to the Director, Botanical Survey of India (Appendix-IV–VI).





Fund Flow Diagram of the Assistance to Botanic Gardens Programme

6. TERMS AND CONDITIONS UNDER THE PROGRAMME:

A. General

- i. The land allotted for the garden cannot be diverted for other purposes. Therefore, details of the site with land record of the garden should be provided along with the proposal. Undertaking from the competent authority to be submitted that the land is meant only for Botanic Garden.
- ii. The organization shall provide an undertaking while applying the grant clearly stating as to how the garden will sustain its maintenance and other activities once the funding of the Ministry stops. The organization would also ensure adequate budgetary provisions for this purpose. Responsibility of continuing the activity would be undertaken by the institution.
- iii. The organization applying for assistance is required to furnish a certificate indicating that no grant has been received by the organization for the same work from the MOEF&CC and/or any other funding agencies like DBT, DST, UGC, CSIR or ICAR, etc. for the same work.

B. Technical

- i. The organizations funded under the programme should have a provision for the mass multiplication of the plants and also tie up with the potential users of the said plants, so that adequate arrangement could be done for resource generation for garden maintenance. This aspect should be reflected in the proposal.
- ii. The botanic gardens supported under the programme may be linked with the State Tourism Department to promote awareness and also to generate revenue for maintenance and upkeep, wherever possible.
- iii. A provision for creating a network of database of all the Botanic Gardens (including Lead Botanic Gardens) supported under this programme is envisaged. Therefore, all the gardens, under this programme would be liable to provide the list of plants they conserved, the detailed infrastructures they developed, details of exchange programme they conducted, and the detailed mortality rate of the plants etc., from time to time.
- iv. Under the networking scheme, each Botanic Garden in the same phytogeographic region would be liable

to exchange knowledge and plant material and also ensure maintenance of such plant species at different gardens without the chance of losing them.

- v. The period of support to Small Botanic Gardens shall be for 3 years while for Lead Botanic Gardens it shall be 5 years. However, keeping in view the important mandate of Botanic Gardens, the tenure may be extended based on the progress and recommendation of the Expert Committee, without any financial implication.
- vi. Issues related to Intellectual Property Rights (IPR) and large-scale commercialization arising out of the activities under "Assistance to Botanic Garden" programme would be dealt by the BSI on behalf of Ministry.
- vii. Transfer of plant materials or parts thereof in any form to any foreign agency/individual is prohibited under provisions of the Biological Diversity Act, 2002 and attracts penalty. Hence, any such transfer can only be done with the prior approval of the National Biodiversity Authority.

C. Financial

- i. The grantee institute needs to open a separate zero balance Savings bank account for the fund and the interest accrued in each Financial Year shall be deposited before releasing the next grant through a Demand Draft favouring PAO (BSI/ZSI), Kolkata.
- ii. The grantee institute is to be registered as an agency against the Assistance to Botanic Gardens programme of MoEF&CC on Public Financial Management System.
- iii. The institutes receiving grants under the programme must ensure that they utilize the funds in appropriate head and for activities for which they are meant. Any deviation noticed in this regard then no fund will be released in the subsequent instalments.
- iv. If 60 per cent of the released fund is not utilized, the remaining balance shall be adjusted with the 2nd instalment and the interest accrued thereon is to be deposited with PAO (BSI/ZSI), Kolkata by the end of the Financial Year.
- v. The guidelines on emoluments and other service conditions for Research personnel and support staff would be governed by the rules applicable on research personnel working in R&D programmes of the MoEF&CC. All the financial transactions under the project shall be done as per GFR 2017 /State Govt.'s Rules and Norms.
- vi. In the end of the project tenure, the grantee will return the entire unutilized fund, interest earned etc. to the

Director, BSI in the form of a demand draft favouring PAO (BSI/ZSI), Kolkata. All the grantee institutions will be issued a closure certificate in respect of each project, by Director, Botanical Survey of India.

7. DOCUMENTS TO BE ATTACHED

- i. A certificate indicating that funds are not being received from any other source for the same purpose for which funds have been sought to be issued by the Head of the Organization.
- ii. Details of the Principal Investigator and Co-Investigators and bank account may be furnished as per designated proforma.
- iii. A certificate by the competent authority declaring the availability of land in the name of the botanic garden along with sketch is mandatory and must be submitted along with the proposal.
- iv. A certificate to the effect that land use to remain unchanged after receiving the financial support and also after the completion of the project tenure.
- v. Certified estimates of civil works, if any, signed not below the rank of an Executive Engineer is to be provided along with the proposal.
- vi. Detailed list of the plants already present in the garden and the list of the proposed plants to be conserved in the garden.

8. ROLE OF BOTANICAL SURVEY OF INDIA AS IMPLEMENTING AGENCY

- i. BSI will act a nodal agency for the implementation of the Assistance to Botanic Gardens Programme.
- ii. The Nodal agency will be responsible to ensure that the monitoring is spear-headed by the scientists of BSI or regional conservation experts without any prejudice and bias.
- iii. All the Utilization Certificate, Statements of Expenditure, Annual Progress Reports (APRs) and Demand Drafts would be submitted to Director BSI who is the competent authority to accept this.
- iv. All the data pertaining to endangered, threatened and endemic species, standard herbarium information, population status, habitat characteristics and uses of plants etc., generated from the project shall be archived in a data bank of Botanical Survey of India and shall be made available to the public based on laid down terms and conditions of use.
- v. The periodic and final reports submitted by the grantees to the funding agency will be uploaded to a dedicated website and made available to the public, so as to save repetition.

APPENDICES

Appendix - I

PROFORMA FOR SUBMISSION OF PROPOSAL

- 1. Name of the Institution (indicate status whether Central / State / Autonomous Body, etc.):
- 2. Name and address of the PI (with Pin Code, Phone No. & E-mail):
- 3. Brief background of the PI responsible to carry out the work (1 page only):
- 4 Layout of the existing garden:
 - (i) Provide brief profile of the garden, its area, layout, map, etc. The minimum size of the garden should not be less than 2 acres but may be preferably 5 acres or above for small botanic garden and above 10 acres for lead botanic garden):
 - (ii) Is entry to the garden free?
 - (iii) Number of visitors visiting the garden in the case of existing popular garden:
- 5. Infrastructural facilities available at the garden (briefly explain the existing facilities, their present condition):

Infrastructure Facilities proposed to be augmented:

- (i) Provide item-wise details with cost and justification for infrastructural facilities which are required to be created/ renovated/augmented/strengthened along-with financial estimates with detailed break-up. (Facilities like raising/repairing of boundary wall/fencing, green house, tube well and related irrigation facilities and any other infrastructural support such as provision of public conveniences, certified pure drinking water, proper signages for directions/map/description of specimens which can help in achieving the objectives are supported.)
- (ii) Civil construction work should not be exceed 30% of the budget proposed. The detailed estimates for each civil work are required to be attached. This must be based on the latest available Schedule of Rates (SOR) of the State PWD available in the State, and to be prepared/verified by the certified Engineer of the grantee organisation / agency or by the public works organisation of the state and must contain the following:
 - a. Architectural drawings/sketches of the building/structures consisting of plans, sections and elevations with dimensions.
 - b. Specifications of various components of buildings/structures.
 - c. Details of measurement of the items taken in the estimate.
 - d. The estimate should preferably be based on local or state Schedule of Rates (SOR).
 - e. The estimates should preferably be prepared and signed by a qualified engineer not below the rank of the Executive Engineer.
- (iii) Landscaping, pathways, lighting, signages, information boards and multimedia equipment may be allowed in specific cases.
- (iv) Facilities required for transfer of saplings in natural (in-situ) condition.

6. Research/Capacity Building/Awareness Component:

- (i) Thrust areas (as per Aims and objectives of the programme as mentioned in Section 3 vide page no.2)
- (ii) Activities to be carried out under each selected thrust area:
- (iii) Methodology to be adopted:
- (iv) Quarterly Timelines:
- (v) Expected deliverables in terms of outputs in list given below:
 - (a) Plant propagules:
 - (b) Education and awareness materials:
 - (c) Workshops/training programmes/lectures, etc.:
 - (d) Rehabilitation and recovery programmes:
 - (e) Knowledge Products including factsheets and field manuals
 - (f) Technologies/techniques for propagation, multiplication, rehabilitation and recovery programmes:

- (vi) Man-power
 - (a) JRF/SRF/RA
 - (b) Gardeners/Malis, etc.
- 7. Field work for collection of plant material and funds required:
- 8. Detailed list of existing plants in the garden:
- 9. List of threatened/ endemic species proposed to be raised:

(Note: Conservation status of the species proposed to be raised in the garden needs to be given)

- 10. The organization should generally focus on at least 30 per cent of tree species, 50 per cent of shrub species including lianas and 20 per cent of herb/climber species introduced, conserved and maintained in the garden.
- 11. List of institutions which could be networked with the Botanic Gardens. Mention appropriate linkage of Botanic Gardens to the State Forest Department, National Agricultural System through the National Bureau of Plant Genetic Resources (NBPGR) and its Regional Centres, Indian Institute of Horticulture Research, Bangalore and other Institute and Horticultural division of ICAR for developing packages for cultivation, other commodities specific activities for ensuring sustainable use of threatened and endemic plant species.
- 12. Time required for completion of the project after sanction (Note: For Small Botanic Gardens, 3 years tenure is usually allowed and for Lead Botanic Gardens, 5 years is allowed)
- 13. Mention about maintenance mechanism after the period of assistance is over. The organization shall provide an undertaking clearly stating as to how the garden will be maintained/sustained once the funding of the Ministry stops after the project period along with adequate budgetary provision.
- 14. The organization/institution shall provide a certificate that the land demarcated for botanic garden is not diverted to any other purpose at any time in future.
- 15. The organization/institution shall provide a certificate by the competent authority declaring the availability of land in the name of the botanic garden along with sketch which is mandatory.
- 16. **Budget**: Abstract of the budget may be given in following format. Details of budget with justification and estimates may be given as supporting documents. Civil work proposals should be certified by local PWD / CPWD / Competent Engineer.

Sl. No.	Item	1st Year	2nd Year	3rd Year	Total
1.	Manpower				
2.	Infrastructure				
3.	Travel				
4.	Equipment				
5.	Consumables				
6.	Contingencies				
7.	Institutional Charge (if any)				
	Grand Total				

Signature with date and seal

Principal Investigator

Appendix - II

PROFORMA FOR SUBMISSION OF PRELIMINARY CUM FEASIBILITY REPORT OF THE BOTANIC GARDENS

- Name of the Botanic Garden and State: (please indicate whether Central / State / Autonomous etc.)
- 2. Area of the land available for the proposed activity:
- 3. Ownership of the land (please attach document proof):
- 4. Whether the land is available in the name of the Botanic Garden :
- 5. Whether the land is earmarked for botanic garden by the institution / organisation or any other purposes:
- 6. Whether the institution is committed to maintain the garden even after the funding is over:
- 7. Status of existing infrastructure facility as available:
- 8. Justification for the infrastructural facility proposed to be created:
- 9. List of the existing species and their status:
- 10. Whether the list of plant species proposed for conservation is appropriate? (Please specify the endemic, endangered and threatened plant species to be conserved in the Botanic Garden):
- 11. Whether the proposed items / facilities are justified under the Assistance to Botanic Gardens Programme?
- 12. Whether the rate and cost of the proposed civil work is certified by a Government Engineer?
- 13. Type of soil in the proposed land:
- 14. Availability of the water for irrigation facility:
- 15. Name of the subject expert (s) available in the institution / organisation:
- 16. Accessibility to the Garden (distance from the city):
- 17. Remarks / Recommendations:

Appendix - III

PFMS REGISTRATION / BANK DETAILS OF THE AGENCY/ORGANISATION

1.	PFMS UNIQUE CODE.	
2.(i)	AGENCY NAME(NAME OF UNIVERSITY/INSTITUTE/	
	COLLEGE, ETC.)	
2.(ii)	AGENCY TYPE (CENTRAL / STATE / AUTONOMOUS ETC.)	
2.(iii)	HIERARCHY OF AGENCY (CENTRAL/STATE/DISTRICT/	
	BLOCK/TAHSIL/PANCHAYAT/VILLAGE).	
2.(iv)	ACT/REGISTRATION NO.	
2.(v)	DATE OF REGISTRATION.	
2.(vi)	REGISTERING AUTHORITY.	
2.(vii)	STATE OF REGISTRATION.	
3.	TIN NO (IF AVAILABLE).	
4.	TAN NO.	
5.	COMPLETE CONTACT ADDRESS OF THE AGENCY.	
5.(i)	BLOCK NO./BUILDING/NAME OF PREMISES.	
5.(ii)	ROAD/STREET/POST OFFICE.	
5.(iii)	AREA/LOCALITY.	
5.(iv)	CITY/DISTRICT.	
5.(v)	STATE.	
5.(vi)	PIN CODE.	
6.	CONTACT PERSON.	
6.(i)	DESIGNATION.	
6.(ii)	PHONE NUMBER (LAND LINE).	
6.(iii)	ALTERNATIVE PHONE NUMBER/MOBILE NUMBER.	
6.(iv)	OFFICIAL E-MAIL ADDRESS.	
7.	BANK ACCOUNT DETAILS.	
7.(i)	INSTITUTION'S ACCOUNT NAME (AS PER BANK RECORD).	
7.(ii)	ACCOUNT NO.	
7.(iii)	IFSC CODE.	
7.(iv)	BANK NAME (IN FULL).	
7.(v)	BRANCH NAME.	
7.(vi)	COMPLETE BRANCH ADDRESS.	
7.(vii)	MICR NO.	
7.(viii)	SWIFT CODE.	
7.(ix)	ACCOUNT TYPE.	

Certified that the Institutes account is in an RTGS/ECS/NEFT enabled branch. I hereby declare that the particulars given above are correct and complete. The above Agency's Account No. and bank details are registered/mapped under PFMS.

Date:

Signature of the Competent Authority of the Agency with seal

Certified that the particulars furnished above are correct as per our records.

Signature of the Authorized Bank Official with Bank seal

Date:

Appendix - IV

GFR 12 – A

[(See Rule 238 (1)]

FORM OF UTILIZATION CERTIFICATE FOR AUTONOMOUS BODIES OF THE GRANTEE ORGANIZATION

UTILIZATION CERTIFICATE FOR THE YEAR.....in respect of recurring/non-recurring GRANTS-IN-AID/SALARIES/CREATION OF CAPITAL ASSETS

- 1. Name of the Scheme.....
- 2. Whether recurring or non-recurring grants.....
- 3. Grants position at the beginning of the Financial year
 - (i) Cash in Hand/Bank
 - (ii) Unadjusted advances
 - (iii) Total
- 4. Details of grants received, expenditure incurred and closing balances: (Actuals)

Unspent Balances of Grants received years [figure as at Sl. No. 3 (iii)]	Interest Earned thereon	Interest deposited back to the Govern- ment	Grant received during the year		Total Available funds (1+2- 3+4)	Expenditure incurred	Closing Balances (5-6)	
1	2	3		4		5	6	7
			Sanction	Date	Amount			
			(i)	(ii)	(iii)			

Component wise utilization of grants:

Grant-in-aid– General	Grant-in-aid– Salary	Grant-in-aid–creation of capital assets	Total

Details of grants position at the end of the year

(i) Cash in Hand/Bank

- (ii) Unadjusted Advances
- (iii) Total

Certified that I have satisfied myself that the conditions on which grants were sanctioned have been duly fulfilled/are being fulfilled and that I have exercised following checks to see that the money has been actually utilized for the purpose for which it was sanctioned:

- (i) The main accounts and other subsidiary accounts and registers (including assets registers) are maintained as prescribed in the relevant Act/Rules/Standing instructions (mention the Act/Rules) and have been duly audited by designated auditors. The figures depicted above tally with the audited figures mentioned in financial statements/accounts.
- (ii) There exist internal controls for safeguarding public funds/assets, watching outcomes and achievements of physical targets against the financial inputs, ensuring quality in asset creation etc. & the periodic evaluation of internal controls is exercised to ensure their effectiveness.
- (iii) To the best of our knowledge and belief, no transactions have been entered that are in violation of relevant Act/Rules/standing instructions and scheme guidelines.
- (iv) The responsibilities among the key functionaries for execution of the scheme have been assigned in clear terms and are not general in nature.
- (v) The benefits were extended to the intended beneficiaries and only such areas/districts were covered where the scheme was intended to operate.
- (vi) The expenditure on various components of the scheme was in the proportions authorized as per the scheme guidelines and terms and conditions of the grants-in-aid.
- (viii) The utilization of the fund resulted in outcomes given at Annexure II duly enclosed (to be formulated by the Ministry/Department concerned as per their requirements/specifications.)
- (ix) Details of various schemes executed by the agency through grants-in-aid received from the same Ministry or from other Ministries is enclosed at Annexure –II (to be formulated by the Ministry/Department concerned as per their requirements/specifications).

Date:

Place:

Signature

Signature

Name..... Chief Finance Officer(Head of the Finance) Name..... Head of the Organization

(Strike out inapplicable terms)

Appendix - V

EXPENDITURE STATEMENT [DD-MM-YYYY TO DD-MM-YYYY]

1	Sanction No. & Date	
2	Total outlay of the Project	
3	Date of Start of the Project	
4	Duration of the Project	
5	Amount received in the Current Financial Year	
6	Unspent amount carried forward from the previous FY	
7	Total Amount available for Expenditure (5+6)	
8	Interest accrued in the previous FY, if any	

Statement of Expenditure

Sl. No.	Sanctioned Budget Head	Amount Carried forward from the FY (X)	Amount received in the FY (Y)	Total Amount available (X+Y)	Amount spent during the FY	Balance	Remarks, if any
1	Manpower						
2	Infrastructure						
3	Travel						
4	Equipment						
5	Consumables						
6	Contingencies						
7	Institutional Charge (if any)						
8	Bank interest						
	Grand Total						

Certified that expenditure of ₹ 0000.00 actually incurred on the project for the purpose it was sanctioned.

Name, signature and seal of

Principal Investigator

Finance Officer

Registrar/Head of the Organization

ACCEPTED AND COUNTERSIGNED

Appendix - VI

PROFORMA FOR SUBMISSION OF PROGRESS REPORT

(The grantee organization will furnish half yearly and annual report of physical and financial progress to BSI who in turn will forward it to the MOEF&CC, Government of India as per following pro-forma)

- 1. Name of the Scientist and Organization:
- 2. Sanction Order, Date and Amount of Grant-In-Aid Sanctioned and released:
- 3. Period of Report (Give exact date):
- 4. Project outcomes
 - 4.1. Abstract Summary
 - 4.2. Output in terms of Quantifiable Deliverables

Sl. No.	Project objectives	Monitoring indicators	Quantified outputs/ outcomes achieved	Deviations made if any and reason there off
Ι	Objective			
II	Objective			
III	Objective			
IV	Objective			
V	Objective			

4.3. Objective wise Major Achievements

Sl. No.	Objectives	Major achievements
Ι		
II		
III		

5. Strategic steps with respect to outcomes:

- 6. New data/methodology generated over the base line data:
- 7. Demonstrative skill development and capacity building /manpower trained:
- 8. Whether tours were undertaken during the period?
 - a. Name of the Threatened / Endemic species:
 - b. Place visited for collection (with date):
 - c. Names of species introduced and no. of plants maintained:
 - d. Name of the plants introduced back to its habitat:
 - e. Overall health of the species:
- 9. Linkages with regional and national botanic garden network:
- 10. Project stakeholders and beneficiaries and impact:

11.	Major equi	pment and	periphera	l procured	under the	project (if anv)
	in all of the second		P • · · · P · · · · · ·				

Sl. No.	Name of the equipment	Quantity	Cost (in INR)	Utilization of the equipment after the tenure of the project	Remark
Ι	Objective				
II	Objective				
III	Objective				

12. Quantification of the overall project progress

Sl. No.	Parameters	Total	Remark (attach the soft copies of the document)
Ι			
II			
III			

13. Knowledge Products and publications

Sl. No.	Publications /Knowledge Products	Details of the publications with date	Remark (Attach a copy of the publication)
Ι	Research Paper		
II	Book/Book Chapters		
III	Technical Reports/ Protocol Developed		
IV	Training manuals		
V	Paper presented conferences/Seminars		
VI	Policy draft/paper		
VII	Others, if any		

14. Financial Summary (Please attach the consolidated and audited utilization Certificate (UC) and the year wise statement of expenditure (SE) separately).

15. Recommendations/suggestions on utility of project finding

Signature with date and seal:

Appendix - VII

PROFORMA FOR SUBMISSION OF EVALUATION REPORT

1	Name of the Officer/Scientist	
2	Organization and detailed address	
3	Name of the Garden	
4	Sanction order, Date Amount and tenure sanctioned.	
5	Period of report	
	(Please mention the exact date)	

- 6. Latitude/longitude of the Botanic Garden and satellite images of the garden
- 7. Whether tours were undertaken during the period?
 - a. Name of the Threatened / Endemic species:
 - b. Place visited for collection (with date):
 - c. Names of species introduced and no. of plants maintained:
 - d. Name of the plants introduced back to its habitat:
 - e. Overall health of the species:

8. Output in terms of Quantifiable Deliverables

Sl. No.	Project objectives	Monitoring indicators	Quantified outputs/ outcomes achieved	Deviations made if any and reason there off
Ι	Objective			
II	Objective			
III	Objective			

9. Objective wise Major Achievements

Sl. No.	Objectives	Major achievements
Ι		
II		
III		

10. New Data generated during the period over the baseline data

11. New methodology developed (if any)

- 12. Outputs of the research Component / education / Awareness activities/ resource materials.
- 13. Whether UC/ES/PR uploaded or provided to Director, Botanical Survey of India Botanic Garden/ MoEF&CC

Name: Designation

Appendix - VIII

ADDRESS OF BOTANICAL SURVEY OF INDIA (BSI) HEADQUARTERS

The Director _____ Botanical Survey of India

Address

3rd MSO Building, DF Block, CGO Complex, Salt Lake City Kolkata - 700 064 West Bengal

Contact address

Telephone: 033 2334 4963 E-mail: aamao@bsi.gov.in E-mail: hoo-hqrs@bsi.gov.in

Scientist In-charge & Nodal Officer Assistance to Botanic Gardens

Address

Technical Section, Botanical Survey of India 3rd MSO Building, DF Block, CGO Complex, Salt Lake City Kolkata - 700 064 West Bengal

Contact address

Telephone: 033 2321 4050 E-mail: ssdash@bsi.gov.in E-mail: tech@bsi.gov.in









CGO Complex, 3rd MSO Building Wing - F, Fth & 6th Floor, Sector - I DF Block, Salt Lake City, Kolkata - 700064 West Bengal, India

https://bsi.gov.in/