

# Gurukula Botanical Sanctuary

## What this is about

**The transformation of Gurukula Botanical Sanctuary (GBS), into a world class plant conservation, nature education and habitat restoration centre, in the forested Western Ghat mountains of southern India.**

In 2007 thanks to a generous and timely donation from Mrs. Rohini Nilekani, we were able to put aside an endowment fund for the first time, and also to consider a comprehensive development for the whole place. We are two thirds of the way through now, and would like to make an appeal to the international community to help us with the last leg of the work and to further build the endowment so we can assure the plants and the staff who have worked here for many years, a reasonable degree of financial security, until now provided by hundreds of small donations raised through the effort of friends, individually and through membership organizations created in Switzerland, UK, The Netherlands and India.



We are particularly delighted to flag off this appeal with its first response: a donation of GBP 2000 from Scottish singer and songwriter KT Tunstall. KT and her husband Luke visited GBS last winter to learn about our environmental work. KT sang in our acoustic musical space, the Water Tower: a magical concert for us. Her response to this appeal has been immediate.

KT is one of three well known artists to support our work. Arundhati Roy, writer; and Mark Edwards, environmental photographer, both close friends of ours, have helped us in countless and necessary ways.



## **What we are attempting to do: in summary**

Since 1981 GBS has been quietly working on "gardening back the biosphere", a unique approach to plant conservation and habitat restoration for rainforest areas. GBS's vision and practice combat species erosion and habitat degradation through *ecosystem gardening* and *forest-based community education* for people from every part of society. Its effectiveness is evident in the rising regional and national demand for GBS's plant material, habitat restoration practices and education programmes.

In 2006 the GBS gardener's team received the UK's top environmental prize, the Whitley award, for its conservation programme named the "Green Phoenix", subsequently leading to solicitations from the international arena. Several unusual landscape-level partnerships have since started between GBS and stakeholders in different areas of the Western Ghats in Southern India, to protect and restore destroyed forest areas. As extractive pressures on wild species increase and the slew of anthropogenic pressures mounts, the collapse of ecosystem function and structure looms up with frightening pace. It is clear to scientists and environmentalists alike, that the single action to combat climate change other than stopping forest loss and reducing emissions through deforestation is the resurgence of natural habitat with a full complement of native species.

GBS's unique effort needs international support to expand in scale and scope to nurture species, habitats and human sensibilities in a fragile ecosystem and to bring about a paradigmatic shift in society's relationship to the living matrix.



*Regrown habitat rich with native species at GBS: an example of gardening back the biosphere*



## **What's here and what's happening:**

**Rare conservation garden of Indian plant species:** Whereas the Indian medicinal plant industry has managed to successfully cultivate less than 100 species at crop scale (of the thousands it uses), GBS has built up extensive populations for 40% of the region's flora (2000 indigenous species across 100 families), many of which are rare and endangered. Forty percent of its gene pool is endemic, including orchids, impatiens, peppers, grasses, aroids, acanthus, gingers, mosses and ferns. GBS's ecosystem gardeners propagate horticulturally challenging (largely herbaceous) plants that occupy highly specialized niches in the wild. This is *the* largest collection of native species in the region and includes both flowering and non-flowering taxa. The Ministry of Environment and Forests and the Botanical Survey of India, two premier Government agencies are now requesting GBS to take the role of a lead garden for training gardeners and parataxonomists from around the country. GBS has agreed to be involved in this after the construction of a building to host the increased numbers envisaged under this scheme.



*A selection of plants from different families under the GBS conservation programme*

**The School in the Forest:** Over 50,000 individuals, mostly rural people, would have visited the centre, and taken back ideas and techniques to care for the earth in a personal and direct way. Stakeholders from across the region now approach the centre for advice on land management and restoration. GBS's outreach programmes (including guided botanical walks, workshops, seminars and lectures) have engaged concerned citizens, botanists, ecologists, environmentalists, activists, educators, tens of thousands of students, various stake holders in the landscape (forest officials, industrialists, government officials, community leaders).

For the last few years, more than 1000 urban middle-to upper class school children have spent a week to a month at GBS and have participated in intense residential programmes based on the philosophy of the School in the Forest. Many of these have been documented and are available as resources for other educational initiatives. The impact of these residential programmes have been at various levels, for example, sensitizing young people to the urgency of forest protection, profoundly affecting their worldviews and inspiring some of them to take up conservation as a vocation. The education team at GBS is solicited by schools and communities all over the world to share principles and methods from the School in the Forest.



*11 children join hands to encircle this tree in the forest*

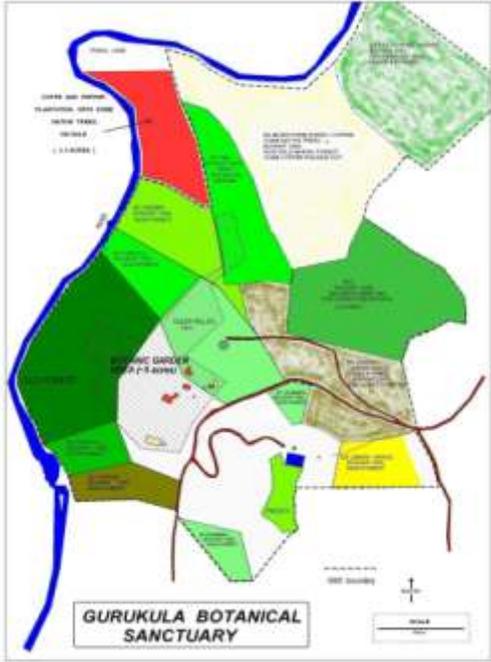
A fledgling course for young adults called the **Landscapes and Lifeskills Programme**, a six month long internship based at GBS and a partner group in the Himalaya region called Himal Prakriti, has been steadily attracting more and more interested youth from around the country and the world. Offering both hands-on as well as study modules, the programme is founded on the perception that there is urgent need for “head, heart and hands” approach to environmental action. It is unique in that it is open to anyone over the age of 18, whatever the background, tribal, rural or urban.

**Forest recovery and land care:** Over time sixty acres have come under our collective care. The GBS land is a thriving experimental station that provides a model for sustainable living, integrated land use and forest restoration. Our work gives us indisputable evidence that natural vegetation cover definitely boosts water flow resulting in perennial springs. Complex habitats can be re-established faster to a degree of health with protection, succession, and re-introduction. Significant change can therefore happen to a place that has been degraded by human activity, and also to endangered populations of native plant species.

Much of the GBS lands were under lemon grass and tea plantations. The return of shrubs, trees and young forest with over 100 native tree species in a period of 15 years, as well as springs, wildlife and tender plants, to such depleted places is a rare thing to see. We also have a farm and dairy. Year by year, the produce from this way of “forest farming” increases, the intention being to approach sustainability in grain, spices, fruit, and vegetables for part of the year.



We have never been interested in the standard way of “carbon offsetting” with tree planting. In our opinion, this is inefficient, requiring long term monitoring. Besides, few schemes guarantee the use of native species or of healthy diversity. However, many individuals have supported our efforts to nurture forest (natural habitat) recovery on degraded land. This is the best carbon sink, next to protecting standing forest. Wildlife, watershed, soil, hundreds of native plant species, all benefit from this approach.



A map showing the land area, ages of protection and regrowth. In red is the piece most recently purchased thanks to a donation from Rainforest Concern, UK

**The launch of the Green Phoenix:** Underway now is a website and consultative process, partly in the form of an online restoration helpline to address the hundreds of enquiries and requests that pour in every year for the GBS team to advice land and forest management policy and practice. The vision for the Green Phoenix: *a decentralised movement based on consultative community participation towards ecological renewal; including the pledging of land for protection, restoration, agro-forestry; based on an approach that treats **landscapes as living unities**. Three fundamental principles to follow: maximizing biodiversity; recovering ecosystem function and structure; harmonious inclusion of human needs.*

The Green Phoenix strategy will also link up with the handful of similar enterprises (fledgling ecosystem gardener projects in other biomes in India) to provide a comprehensive approach and sound counsel to restoration movements at individual, community and governmental levels.

**Facilities at GBS:** The GBS garden and community base to support all the above has steadily grown in size with a number of facilities in place: community kitchen to feed upto 100 people at a time; guest cottage; staff housing; library, plant propagation sheds, irrigation systems; farm and dairy; sustainable energy systems.





## **Why this work is significant on a wider scale.**

**A recent example:** Suprabha Seshan, part of the team for 16 years and main spokesperson for GBS at public events) was invited by Antonio Donate Nobre, a leading scientist in Brazil, to present the ethos of “gardening back the biosphere” and techniques in forest reconstruction to communities all over Brazil. Antonio reasoned: “. In order to save what is left, we need to start teaching people the value of the natural world, we need to spend time sowing communities in Brazil with GBS’s experience on plants. As soon as society learns to tend, to garden back the biosphere (in GBS’s wise and prophetic words), then, I believe, what is left of the biosphere will be preserved.”

“Gardening back the biosphere” resonated with Antonio’s own understanding of restoration as a holistic and practical means to mitigate the disastrous effects of large scale deforestation. Most restoration practice involves succession (leave nature alone) or tree planting, both of which are good and necessary but not necessarily effective enough in restoring or “nudging” habitat to its natural potential in a given period of time, especially in species rich areas like the rainforest. The metaphor (and practice) of “gardening” is particularly relevant here because it uses a wide range of methods and techniques, which complement successional processes. GBS’s long experience in this and success with a very wide range of life forms (from herbs and epiphytes, to shrubs, lianas and trees) with low tech means and local expertise is worth sharing in a wider “restoration” arena for the very reason that it achieves complexity, structure and process: three of the essential ingredients of healthy ecosystems.

Antonio put together an extraordinary itinerary for a period of 10 weeks. Suprabha met with quilombo communities doing reforestation work in Valle Ribeira, with members of Ikatu Xingu, in the state of Matto Grosso a campaign by Instituto Socio Ambiental to repair the damage done by huge agribusiness, talked with indigenous students in Sao Gabriel de Cachoeira in the heart of Amazon rainforest, on how the integrity of their forests is helping fight climate change, how that same integrity is keeping the planet in balance, and how it could be the inspiration for most of humanity who can no longer experience a place where nature rules; presented GBS’s work at INPA, the premier institute in Amazonian research (Manaus); gave a series of talks in the state of Acre: land of Chico Mendes and heroic rubber tappers, where forest dwellers resisted deforestation, one of the iconic stories of environmental activism; and, finally exchanged ideas and techniques with staff and researchers at the **Rio de Janeiro** botanical garden . She also had the extraordinary opportunity to meet Senadora Marina Silva in Brasilia and to present GBS’ work to her. Marina Silva will run for President in the 2010 elections in Brazil.





## **Who we are:**

**Core group:** Wolfgang Theuerkauf, Founder and Trustee; Suprabha Seshan, Trustee, Executive Director; Laly Joseph, Joint Conservation Director; P. Suma, Joint Conservation Director; T. Sandilya, Education and Research Coordinator; Sruti Yusufi, Senior Conservation Assistant; Leela Theuerkauf, Community Coordinator; N. Venu, Trustee

**Trainee staff:** Purvy Jain; Abhishek Jain; Shailesh Nambiar; Chaiti Seth

**Core friends, counsel and longterm collaborators:** Christoph Tobler, Dr. Shashidhar Jagadeeshan, Friedrich Grohe, Dr. Kamala Mukunda, Lorenzo Castellari, L. Shyamal, T. Anna, Diba Siddiqi, Maryan Klomp, Edith Walsum, Pradip Krishen, Dr. M. S. Mayilvahnan, Graham Doctor, Stefi Barna, Valli Seshan, Ueli Wenger, Dr. M. Sanjappa, Sora Tsukamoto, Dr. Henry Noltie, Derek Hook, Gary Primrose, Anuruddha Jaithirtha, Alan Morley

**Partner, consultant and donor organizations:** Centre for Learning; Rainforest Concern; Rainforest Information Centre; Whitley Fund for Nature; Shibumi Friends International; Forderkreis, Vattakanal Conservation Trust; The Forest Way Trust; Zeffirellis; AG Educational Trust; Krishnamurti Link International; Friends of the Sanctuary; TVS Educational Society; Hard Rain Project; Stanley Smith Horticultural Trust; ICCO; Botanic Gardens Conservation International; National Botanic Research Institute, Botanical Survey of India, Tropical Botanic Garden Research Institute; College of Forestry.



**Top Row left to right: Wolfgang, GBS founder and chief; members of the garden team; Suprabha (at the Whitley awards with Princess Anne)**

**Bottom Row: Sandy photographing a snake; Sruti and Anu planting on top of small tree; Laly with a cycad.**



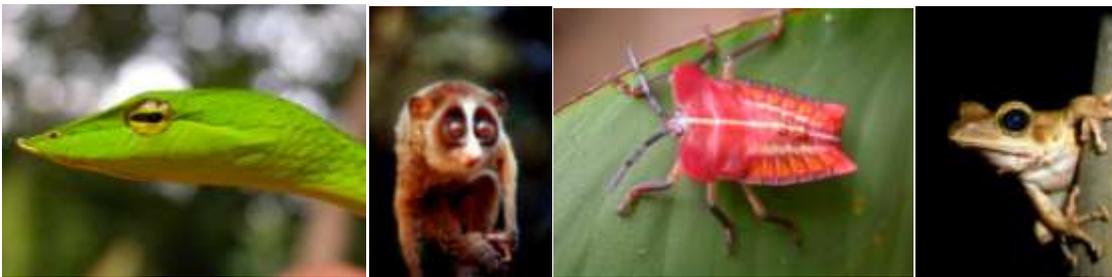
## What we need now

GBS has functioned for over twenty five years with the committed support of friends, family and a few like minded organizations. People have helped out in all kinds of ways, from generously giving their time and labour to books, funds and equipment.

In 2007 thanks to Rohini Nilekani's donation of GBP 200,000 we were able to set up an endowment fund and consider a comprehensive development plan for the whole place.

- **Addition to the endowment fund:** We need an additional GBP 150,000 for the endowment fund to achieve a measure of financial stability. This will help the senior members of the core team free up their time from fundraising and to ensure long term security for the plants and the local staff. Rohini's grant brings approximately half of our running money for the year. We still need to actively raise the other half. Currently this comes from dozens of small donations (through Shibumi Friends International, Forderkreis, Friends of the Sanctuary) and a few solicited larger grants, as well as a steady flow from the sale of Rainforest Pizzas by Zefferellis restaurant in the UK.
  
- **Development and infra structure:** GBP 50000 (One time):
  - 1) A Training Centre and Staff Accommodation building commissioned under the Whitley award and Mrs. Rohini Nilekani's support requires additional support for completion, due to steep inflationary rise in raw materials and local wages. The building is well under way but had to slow down recently due to unseasonal heavy rains, lack of labour and funds (due to inflation). It has been envisaged as accommodation for one or two permanent staff as well as trainees and short-term visitor groups. It also a hall for community meetings, village school visits, art and craft space. As the Sanctuary is too remote to make commuting practical, we are obliged to provide safe, on-site housing for staff and trainees. This is an issue of particular concern to young rural women, the pool from which we select trainees, as well as for students.
  
  - 2) Display areas, public toilets, access around conservation areas for visiting public. These involve landscaping, pathways, level areas and outdoor stairways, greenhouses, plant shelters, interpretive signs and plant labeling, fencing of lands for reforestation (protection from grazing and tree-felling).
  
  - 3) Boosting workshop facilities: GBS has always prided itself on its high degree of self sufficiency in maintenance and repair and this is now becoming a whole new area for students and volunteers to participate in. Carpentry, masonry, electrical, plumbing and basic metal work are undertaken here.

- **Three and a half hills land fund:** GBP 30,000 – 40,000. Our trust's name "Munnarakkunnu" means "three and a half hills", in our local Malayalam language. Since the beginning we (with the help of contributions from around the world) have sought to slowly bring more and more of our immediate neighbourhood under our care, particularly after the boom in real estate transactions resulted in lands being sold to tea planters. The ecological consequence of tea in a rainforest area is disastrous. Our efforts have been successful to the extent that most of our watershed area is protected now. More recently there is a surge of interest from speculators in far off urban centres to buy land for building resorts (under the guise of eco-tourism). We urgently need to buy a few more acres in order to complete the watershed protection (three hills and two valleys) and to ensure that these are not bought up either by tea planters or resort builders. Meanwhile the prices are rocketing upwards.



*Return of wildlife: with the vegetation come the birds, reptiles, amphibians, insects and mammals. One of the most encouraging signs of our work.*

**GBS is an activity of Munnarakkunnu Trust, a registered charity with permission to receive money from abroad.**

**All donations to GBS can be made by cheque to MUNNARAKKUNNU TRUST and mailed to the following address: Munnarakkunnu Trust, 545 Banagiri Nagar, Banashankari III Stage, Bangalore 560085.**

Donations to GBS in UK can be made by cheque to AG Educational Trust, see details overleaf

Donations in the Netherlands can be made by cheque or wire transfer to Shibumi Friends International, see details overleaf.

For further information on GBS, donations, or any of our partner organizations please write to Suprabha Seshan. Email: [jungler@gmail.com](mailto:jungler@gmail.com); [gbsanctuary@gmail.com](mailto:gbsanctuary@gmail.com). For more photographs and more general information, please see our website: [www.gbsanctuary.org](http://www.gbsanctuary.org). For informal news, please visit our blog, "Three and a half Hills" at <http://gbsanctuary.wordpress.com>. You can also Google search under Suprabha Seshan to find articles on various aspects of our work.



## **Donations in the United Kingdom**

THE AG EDUCATIONAL TRUST  
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REG. CHARITY No. 1045527  
REG. COMPANY No. 03003897

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SORT CODE: 20-97-01  
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IBAN: GB43 BARC2097 0100 673854

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## **Donations in the Netherlands**

STICHTING SHIBUMI FRIENDS,  
MOLENSTRAAT 16  
6701 DM WAGENINGEN

ABN AMRO BANK N.V.  
POSTBUS 8, WAGENINGEN

IBAN: NL 09ABNA0513420622  
BIC: ABNANL2A

Donors in the Netherlands may also contact Maryan Klomp for further information.  
Email: [Maryan.Klomp@gmail.com](mailto:Maryan.Klomp@gmail.com)

