

Mr ROOTS HANDS OVER

**Darshan Shankar
favours transition
even as FRLHT is
poised for big leap**

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Bangalore/New Delhi

SIX months ago, Darshan Shankar began a process that took his colleagues at the iconic Foundation for the Revitalisation of Local Health Traditions (FRLHT) by surprise. He privately sounded them out on how they would react to him stepping down from the post of director.

The normally placid and even-paced FRLHT campus outside Bangalore has since, in its own quiet way, been coping with this intimation of impending change. Talented scientists, foresters, taxonomists, researchers, computer professionals and Ayurveda physicians work here on giving traditional medicine modern meaning. Most of them were drawn to FRLHT because of Darshan's vision and they stayed for the large reserves of positive energy that the organisation thrives on.

FRLHT has done more for promoting Ayurveda and other traditional health systems and bringing them within handshaking distance of western science than any other voluntary organisation in its bandwidth. It has been instrumental in influencing national policy and has created awareness about medicinal plants and folk healers. Perhaps most significantly, FRLHT has tried to bridge the gap between traditional knowledge and the modern market for it in integrative approaches to healthcare.

It is rare that heads of Indian voluntary organisations offer to demit office. In Darshan's case, the decision to take early retirement was even more surprising because FRLHT is at the acme of a success built with hard work, innovation and much sacrifice over 15 years. Darshan has been at the helm all this while. And to go now would be to walk out of the spotlight just when he should be basking in many wats of deserving glory.

Civil Society first reported on Darshan and FRLHT in a cover story, "Meet Mr Roots", in January 2004.

In the grand sweep that Darshan was able to institutionalise, FRLHT moved

Photographs: LAKSHMAN ANAND



Darshan Shankar at his desk

from working with communities to creating digital databases of plants, documenting local knowledge, setting up a modern laboratory for validating therapies and finally establishing an Ayurveda hospital.

The organisation leapfrogged from a city office in Bangalore in the nineties, to a five acre campus on the fringes of the city. It now employs over a hundred people and its departments are headed by skilled and personally secure professionals who are empowered in their spheres.

Darshan, a robust but benign head in this flat hierarchy, could have continued as director for life in such circumstances. But Darshan was adamant that he has to go. At 56, it was time, he said, to hand over the directorship to the second line. He could continue to be in the organisation to serve, but he was insistent that others should have the opportunity to lead.

And so with those first private chats began the process of consultation about who that person could be. If it was someone from within, would he/she have everyone's approval? Would it be possible to shift to a collegiate model of paths chosen by consensus? Darshan has been a team player, but he brought to the founder-director's job an entrepreneurial edge. Would a successor be able to wrest the same space, set the same tone?

Or was it necessary to replace Darshan with an outsider and make a clean break? Perhaps an outsider would come with new energy and vision and put the organisation on another trajectory. May be a better, more beneficial one than Darshan has been able to define.

As it happened the choice fell on someone from within. It was decided that Additional Director DK Ved would take over. Ved is a mechanical engineer, by training, a forester by profession and perhaps one of the country's most knowledgeable experts on the geographical distribution of the 6,000 species of medicinal plants of India. He has designed and developed multidisciplinary medicinal plant databases in FRLHT. Darshan intends to be around in some kind of emeritus role to make the transition smooth. But a new phase in leadership would be clear to all. Ved will now assume office in March.

**OVER
THE
YEARS**

In situ conservation of medicinal plants in forest habitats. Till 2007 there have been 84 conservation areas established in nine states

1993

Database on botanicals used by Indian systems of medicine

Network of folk healers in seven states.

1994

170,000 home and institutional herbal gardens

Bio-cultural herbarium and raw drug repository

1996

Community owned company for medicinal plants

2001

Laboratory for pharmacognosy & product development

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Enhancing Education



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However, even as consensus emerged several stages remained before the decision could be formalised. If the FRLHT team had talked it through, the governing body remained to be consulted.

Darshan wrote to the redoubtable Sam Pitroda, chairman of FRLHT's board. Pitroda had helped Darshan in critical ways when he had wanted to set up FRLHT in 1993 and has continued to serve as chairman, nurturing the organisation with strategic directions and his many connections.

Pitroda, who once fathered the technology missions and was a key advisor to Rajiv Gandhi, is now chairman of the Knowledge Commission and much, much more. Pitroda was often thrilled at what FRLHT had managed to achieve with his moral support and strategic advice. He has helped by his opening a door here or there. Darshan had gone to him as a young man with a big vision in search of a benefactor.

Once asked by a leading light of the NGO movement what he as a technocrat was doing as chairman of an organisation working on traditional knowledge, Pitroda responded: "Find me 100 other Darshan Shankars who are as serious and committed to an idea and I will happily help open doors for them and be chairman of their organisations."

Pitroda was okay with Darshan retiring if he really wanted to, but he insisted that the process of handing over would have to be structured. "It is a world class institution and not some pan shop that you can transfer to somebody else," he said. A committee should oversee the transition, redefine roles and responsibilities of the second and third level leadership and endorse a successor. Darshan, he advised, would have to hand over the mantle at a public function so that the world could know of the change. Darshan's contribution and FRLHT's many milestones.

More importantly, it was decided that FRLHT needed a formal transition plan. Prof KRS Murthy, former director of IIM Bangalore who is on the FRLHT board, was given the task of drafting such a plan. The idea was to plot a path for the future growth of the organisation so that it could keep up its momentum.

Darshan had not only been a builder of durable systems and a motivator of people. He had also been a hugely successful fundraiser. He had worked to create a wider identity for FRLHT, connecting it with government and private institutions across the globe. The transition plan needed to ensure that all this was not thrown into jeopardy.

"When there is a change of leadership, be it in a company or an NGO, it is necessary to examine what is at stake and how achievements can be consolidated. It is also the time to see whether a shift of gears is possible," Murthy told *Civil Society* in Bangalore.

"Change is inevitable. Even good," says Murthy. "But change needs to be handled carefully. Darshan's strengths in bringing good people together, providing a profile for the organisation, raising funds etc are essential for the future of FRLHT. So, it is necessary that he continue in an advisory and supportive capacity even as a new director takes over."

Murthy observes that there are limitations to the roles that founders can play be it in commercial entities or voluntary organisations. They mostly tire, lose perspective and fail to make technological leaps. For instance, research shows that in family owned companies, the business begins to wither by the fourth generation. Professionals are then needed to take over. The challenge founder-entrepreneurs face is when and how to hand over.

The criticism of Indian NGOs is that their founders tend to hang on for too long. Organisations are built around individuals and tend to mirror their personal whims and fancies. The promoter of a good idea grows rapidly in the public eye, then plateaus and finally hangs on at all costs because of the insecurities associated with letting go.

Indian NGOs tend to pay little attention to structure and systems though they use public money. They prefer self-regulation to more rigorous forms of independent scrutiny. There is a sense that transparency worries them unless



FRLHT's verdant campus

FRLHT has tried to bridge the gap between traditional knowledge and the modern market for it in integrative approaches to healthcare.

they can choose the parameters. NGO organisations are built mostly as pyramids with a huge gap between the person at the top and the next in command. Transition plans are therefore unheard of. And when they are implemented, they are invariably accompanied by undisguised backseat driving. No one is left in any doubt as to who is the real boss.

In Darshan's case he seems to be blessed with the temperament to let go. Asked what gave him the idea to quit, he replies with an example from his past: "When I was in my twenties I set up an NGO in a tribal area of Maharashtra. At 35 I felt I should find a younger person who had the natural enthusiasm and energy to continue doing the kind of work that was required of me there. I then went out and looked for someone in his twenties who could take over and found such a person. When this person turned 35 he came to me and said he was ready to hand over. It so happened he died of a heart attack swimming in the river the day after he had found a successor for himself."

There is an inevitability about handing over and passing on. The greater our

Methodology for sustainable harvesting of medicinal plants	Ethno- botanical garden and nursery	Ayurveda hospital is set up at FRLHT campus	Herbal remedies for malaria prevention	Documentation of ancient medical manuscripts
2003		2004		2005

AWARDS

1998: Norman Borlaug Award for contribution to conservation of medicinal plants

2002: Equator Initiative Prize for linking conservation to livelihoods

2003: Cultural Stewardship Award from the Columbia School of Medicine

success the closer we get to obsolescence. The stronger we burn, the weaker we get. Traditional systems of medicine make it easier to understand such permanent impermanence with their emphasis on connections between body and mind, on the inward-outward oneness with Nature.

But Darshan is no aloof philosopher. FRLHT would have never been built and grown into the institution it is today if he were not a man of action: impatient, practical, driven by the need to act.

A poster by his desk quotes from Goethe: "It is not enough to know. It is necessary to do"

Pitroda too is a man of action. Speaking to *Civil Society* on the seventh floor of the Taj Palace in Delhi on one of his flying visits to India because he lives in the US, he says: "We have to learn to move on. When C-Dot was over I never looked back."

Pitroda almost changed the face of Indian telecom in the eighties with a young team of engineers in C-Dot. They came up with the small rural automatic exchange or RAX which made rural telephony possible in difficult Indian conditions. If politicians had allowed them to continue they would have provided the first large indigenously made telecom switch. As C-Dot lost momentum, India's telecom revolution was delayed by a decade.



Sam Pitroda

Pitroda likes being a trigger, a sponsor of new and useful ideas. "When Darshan came to me 20 years ago. I saw someone simple, honest and willing to do something different. I instinctively trusted him and have always trusted him since. It was my gut feeling. If we had more people like him, India would benefit."

At first the support Pitroda gave Darshan was in bits and pieces. Then came the idea of a foundation. "I didn't do much. I've been a catalyst but he did it. It took 15 years, but now it is an institution," says Pitroda.

Pitroda believes that there is little difference between a small NGO and a small business. Both have high expectations, chase great ideas and are invariably short of money. Both need help in finding their way through the system and this is where a Pitroda, reaching out to industry and government as a well networked benefactor, can help.

But the challenge is to move from hand-holding to self-sufficiency. Like a business must depend on revenue streams, NGOs need to be sustainable and capable of institutionalising their gains. "Very often NGO leaders want money to do what they like doing, as though it were a hobby. That is not good enough," says Pitroda.

For Pitroda, the next stage at FRLHT is to commercialise and build market linkages so that the organisation can sustain its activities without asking for funding. As the wellness business grows along with interest in traditional therapies, FRLHT is certainly on the threshold of great opportunities.

The first building blocks of a new identity are already in place. A hospital and wellness centre with 20 beds and plans for 80 more, a modern laboratory for validating therapies and a company for producing value-added herbal products whose shareholders are marginal farmers and rural women all serve to draw FRLHT into the gravitational pull of market forces.

You could add to this a potentially lucrative finishing school that FRLHT will shortly initiate for short-term training for doctors and therapists to equip them to serve in the Ayurveda and Yoga departments in allopathic hospitals and wellness centres. Such are the huge investments in holistic care across the world that FRLHT can hope to be much in demand.

In addition, FRLHT is well advanced in terms of what it has already achieved, to transform in the next few years into an Indian Institute of Ayurveda and Integrative Medicine. This is visualised to be an IIT-level institution that will provide undergraduate, postgraduate and doctoral level training.

FRLHT began with the rather basic programme of designing and implementing an innovative strategy for preserving medicinal plants in the wild. That was in 1993. It is to Darshan's credit that he foresaw the entire range of activities that could emerge from that beginning and moved as and when resources permitted to establish them. The evolution of FRLHT is a story of how a large vision can be realised step by step with steadfast perseverance and unwavering focus.

Says Darshan: "In 1993, the only support we could get was for the conservation of medicinal plants. But even then FRLHT dreamt of becoming a world class institution. The problem was resources. No one was willing to support a comprehensive vision of an unknown organisation in an uncharted field."

But FRLHT kept taking the steps it needed. It developed its strength in Informatics in 1994 with the use of computers to store traditional knowledge and make it easily accessible. Now you can get CDs of the seminal Charak

Samitha at FRLHT. Then came a bio-cultural herbarium in 1996, efforts for reviving community based health traditions in 1997, a modern laboratory in 2001, the beginnings of the hospital in 2004 and finally research on medical manuscripts and the theoretical foundations of Ayurveda in 2005.

The achievements of last 14 years prepare the FRLHT institution to effectively contribute to the emerging era of pluralism in medicine, many had envisaged but few had been able to act upon in the early nineties. As Ayurveda and Yoga acquire increasing importance in integrative healthcare, FRLHT is uniquely positioned to be an institutional bridge between traditional Indian systems and western science.

FRLHT's mission has been to make traditional systems comprehensible to the modern world. The survival of traditional systems depends on them being understood in contemporary scientific terms without diminishing their original

knowledge base. The problem is that while traditional knowledge is based on holism, modern science is rooted in reductionism. Making the connection requires a complex vision and a deep understanding of comparative epistemologies. It is the challenge in medicine as physicians and scientists explore uncharted frontiers.

Some of the concerns belong in the realm of pop culture.

Pitroda believes there is little difference between a small NGO and a small business. Both have high expectations and chase great ideas.



Professor KRS Murthy

Books like "The monk who sold his Ferrari" look for body and mind solutions. Deepak Chopra dominates this space. The debate goes deeper and is difficult to enter in the absence of a common scientific idiom. Modern medicine is structurally defined and therefore is full of quantitative certitudes. The practitioners of Ayurveda on the other hand rely on knowledge that is based on systemic theories and hence the fields in Ayurveda cannot be reduced to structural entities.

The challenge in integrative medicine is to evolve a methodology to define the relationship between the whole and the part. It is clearly not a one to one relationship. "FRLHT or for that matter any one else does not have the final answers," says Darshan. "But it is a pioneer in exploring the relationships in the context of health sciences. It respects both holism and reductionism as ways of knowing Nature. The way we see it is that the whole consists of the parts, but the parts don't necessarily add up to the whole."

A modern scientific laboratory is necessary for translating the systemic parameters of Ayurveda into the scientific structural parameters of modern science. It can develop quality standards for a plant or an Ayurvedic drug and check it out for toxins, heavy metals and so on. The laboratory tests become a means of epistemologically sensitive communication between practitioners of different systems. But the laboratory cannot measure the systemic parameters on which Ayurveda is based. It can only measure representative points in the systemic field. In the hospital an Ayurveda practitioner can benefit from reading an MRI or an ultrasound. He needs to however be trans-disciplinary in his perspective in order to be able to interpret the change in structural parameters in Ayurveda's systemic framework. The void in Ayurveda will still need to read the pulse and assess the body type of the patient in ways that are completely alien to the physicians trained in modern medicine.

FRLHT was founded to find everyday solutions to such complexities. Its success will finally be in creating new and sustainable relevance for the wealth of knowledge that is India's legacy but tends to get lost in debris of change and confusion about the content of an Indian programme of modernisation.



A room in the Ayurveda hospital

Ayurveda hospital, lab, garden

How FRLHT has gone from conservation to research, value added products and clinical practice

THE campus of the Foundation for the Revitalisation of Local Health Traditions (FRLHT) sits on five acres amidst a green wilderness in the suburbs of Bangalore. The area is called Jarakbande Kaval and you get there via Yelahanka, invariably braving traffic jams, pollution and screeching horns.

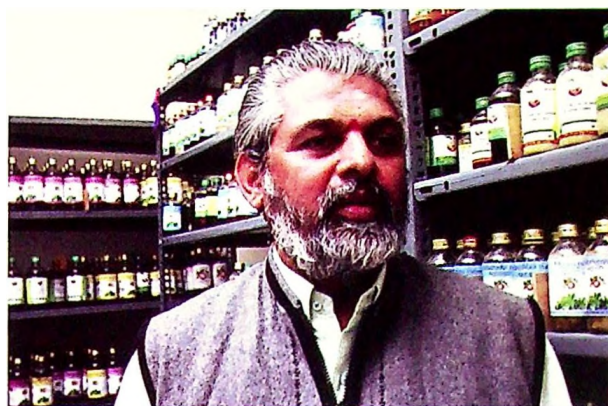
The campus itself, however, is an island of serenity and unruffled activity. There are three buildings with tiled roofs and architecture that ensures interiors are flooded with natural light and air. A fourth building is under construction: it is a gift from a patient. He was so happy with the treatment he received at Amruth, the FRLHT Ayurveda hospital and wellness centre, he insisted on paying for another building on the campus as a donation.

Set up in 2004, Amruth is in a sense the crowning glory of FRLHT's activities. It rounds off the work which began in the early nineties with the identification of medicinal plants, and their preservation in the wild, creation of a herbarium, identifying of folk healers, development of medicines and value added products and the setting up of a modern laboratory as a testing facility. In this chain, the hospital puts everything in sharp perspective because it showcases Ayurveda in practice as physician deals with patient.

The hospital is headed by the forward-looking Dr GG Gangadharan, who used to be at the Arya Vaidya Pharmacy in Coimbatore. In addition to him there is a clinical team of five doctors led by a postgraduate in Ayurveda with a decade and a half in clinical experience. FRLHT on the whole has 15 Ayurvedic doctors and Siddha, Unani and Yoga consultants.

"We started Amruth to mainstream Ayurveda, not as a science from the past, but as a contemporary system of medicine which can play a fruitful role in tackling degenerative, lifestyle related and chronic diseases. These are the problems of this century. Modern medicine is weak here and Ayurveda is strong," says Dr Gangadharan.

The hospital's 12 departments include geriatrics, mental health, diabetes and neuropathy, cardiac disorders, gastro-intestinal and respiratory disorders,



Dr GG Gangadharan



Dr Padma Venkat in her lab



Dr K Haridasan in his ethno-medicinal garden



Products made by FRLHT

ophthalmology, complementary treatment for cancer, skin diseases and so on.

Ayurveda has been under assault on many fronts. If on the one hand the vanishing of medicinal plants has been depriving it of its raw material, on the other there aren't the facilities where Ayurveda as a traditional science is kept alive in a contemporary setting and with a new relevance.

Amruth in its very presence seeks to correct these imbalances. It is a modern, clean and well-equipped facility. It has 20 well-kept rooms for patients to stay and treatment facilities. In time to come there will be 100 rooms. All the Panchakarma treatments under Ayurveda are available here. There is a pharmacy with Ayurvedic medicines chosen from the most reliable manufacturers across the country.

It already has the odd-landmark success to its name. A bus driver with

paralysis after a bad brain haemorrhage was brought to Dr Gangadharan. He looked at the MRI and said there was nothing that he could do. When the family persisted, he agreed to treat the man. Herbal packs for the head and other medications were given to him and in three weeks he began moving. Fresh MRIs after two months showed that clots had gone. Dr Gangadharan is however cautious about presenting Ayurveda as some kind of miracle science. Ayurveda should be used for those ailments which it is known to treat.

"We believe one such hospital in Bangalore is not enough. We would like to multiply it in India and

other countries," he says.

So this hospital will become a module which can be integrated into health centres, women and child health centres, allopathic hospitals etc. People today seek choices in healthcare. The future, as Dr Gangadharan points out, is in integrated health systems. Amruth is keen to be part of the trillion dollar wellness industry.

TEACHING HOSPITAL: Amruth is also meant to serve as a teaching hospital with its own syllabus and degrees both at a graduate and post-graduate level. The physicians who come out of here will be new in their orientation. They will

learn how to give treatment guided by the shastras, but use modern diagnostics to interpret biomedical parameters and assess the outcomes of Ayurvedic treatment. They will also be encouraged to use information technology.

Their training will be to remain within Ayurveda's systemic framework, but simultaneously connect with the reductionist theories of modern science. Making the connection is important for communicating the benefits of Ayurveda in an age when there is a huge demand for its therapies.

Finally, it is physicians who can strike this delicate balance who will keep Ayurveda alive and relevant in a classical sense.

At yet another level, Amruth will be a finishing school for short-term training to doctors and therapists who can then work in clinics and alternative medicine departments of allopathic hospitals. A huge demand is envisaged for such professionals.

The teaching of Ayurveda is either mechanical or doggedly conservative. Young Ayurveda physicians get degrees, but their knowledge tends to be superficial. It doesn't emanate from the philosophical and logical framework of Ayurveda. They can't explain their line of treatment and tend to hide behind the shastras as dogma. The result is that they suffer from low self-esteem in comparison to allopathic physicians who have clear answers for all that they do.

In the absence of a deep understanding, the new Ayurveda doctor does not know how to enter into a dialogue with practitioners of modern medicine and build a constructive relationship. There is also a tendency to ignore present-day public health requirements and shy away from preventive and promotive healthcare in which Ayurveda can be very effective.

The challenge therefore is to be classical with such rigour that it is possible to be modern without being contrived. For the Ayurveda physician caught in today's needs and exigencies, creative scholarship is the way forward. Get the texts right and all else will follow.

It is precisely to achieve this that FRLHT has on board Prof Lakshmi Thattachar, former director of the Sanskrit Academy, Malkote, Karnataka. He is a grammarian and he is assisted by his son, Dr MA Alwar, who is a Sanskrit logician.

The two pundits are deciphering ancient medical texts, including the Charak Samhita. They have studied 500 catalogues, taking down technical details. They plan to make primers for students of Ayurveda. The exercise also serves to salvage important medical works. It also includes the process of finding out original manuscripts. There are many versions. The Charaka alone has 40. Then they plan to bring out a critical edition of selected manuscripts.

Their research associate is Dr Shankar, an MBBS physician, who has translated from Sanskrit to English a book on dietetics called Kshemakutubalam from 13th to 14th century written by Kahema Sharma, chief cook of a Rajput king and an ayurvedic physician. The book is a scientific book on how to preserve your health with details on the right diet, when how and where to eat food, the qualities of a cook, utensils to be used, how to detect toxins and poisons.

LABORATORY: FRLHT set up a laboratory in 2001 to use chemistry and pharmacology for assessing traditional medicine. The laboratory is headed by Padma Venkat, a PhD Cantab. She worked for 10 years in Cambridge University before Darshan got her to join FRLHT and set up the lab.

"The main idea is to determine the quality standards of medicinal herbs and traditional medicine not just from the modern scientific point of view, but also from the traditional viewpoint," says Dr Padma.

The laboratory has the complex job of providing the methodology by which concepts of traditional knowledge can be correlated with modern science. But in a less intricate role it uses standard facilities in chemistry and biology to evaluate and certify raw materials and processes used in traditional medicine.



A plant which produces natural red dye



Plant material from all over India

Amrutha Vana has more than 800 species of tropical Indian medicinal plants from habitats across India.



Exotic orchid



One of many beautiful and useful plants



Seeds for the herbarium

herbal soups in sachets for acidity, digestion and as a refreshing drink.

"I have totally expanded my knowledge base," says Dr Padma.

HERBARIUM: Work on a herbarium or botanical repository of Indian medicinal plants began in 1995. Till date the herbarium has collected about 70 per cent of the medicinal plants used by Indian systems of medicine.

Work under the leadership of Dr Goraya and Dr Ravikumar is already underway to digitise the herbarium. FRLHT's herbarium is recognised by the government as the national herbarium for medicinal plants of India. It is also an internationally accredited herbarium. When it is expanded, the herbarium will include medicinal fauna and the metals and minerals used in traditional medicine. It could one day be a chemical and cell repository.

The herbarium serves to identify plants and their variants and trace them to their habitats. Plant stems, leaves and seeds are then stored away. Digitising them involves scanning them and making them available as images on computer.

"We have information on 7,361 medicinal plant species, with their vernacular names, distribution data, seeds propagation," says Vijay Barve, senior systems manager. There is a library of 14,000 images and maps showing eco-distribution and forests.

A team of four to five botanists make frequent trips to hunt and identify medicinal plant species. States which have been mapped include Karnataka, Kerala and Tamil Nadu. State-wise CDs of plants are available

AMRUTHA VANA: An ethno-medicinal garden, the Amrutha Vana, has been created on the FRLHT campus. It has more than 800 species of tropical Indian medicinal plants from habitats as far away as Arunachal Pradesh. There are grasses, herbs and trees.

"We would like to make this a national garden with medicinal plants from

It has developed innovative products such as a herbal soup for industry on a consultancy basis.

Traditional healers say herbs should be collected only from a particular location at a certain time, stored in a certain way to be effective. The laboratory tries to find out scientifically whether such instructions make a difference to the quality of herbs.

Pharmacognocny, or the identification of crude drugs is done here. All sorts of herbs are traded under one name. This can result in adulteration. The labs use DNA markers to determine species. It has invented a diagnostic kit for small industries that can authenticate the quality of their medicine. FRLHT has applied for a patent.

The lab validates certain traditional practices in the context of modern science. For instance, tests conducted at the lab have found that copper vessels do kill bacteria which cause e-coli, typhoid and cholera. They have identified kitchen herbs which purify water. A squeeze of lime for instance gets rid of pathogens. Pipali, boiled in milk, increases its bioactivity. The labs have invented

every region of India," says Dr K. Haridasan, one of India's leading botanists and a specialist on the northeast. This garden has been lovingly put together by him and Ganesh Babu.

The plants are organised in some 20 different themes. There are 30 species for hair and skin care, 27 species that work as antidotes for poisonous bites, 40 species for primary health care, 56 species that are on the Red List and highly endangered. There are also a great many aromatic medicinal plants and an aquatic herbal garden as well.

The Amrutha Vana has been the inspiration for other home, community and institutional herbal gardens. Thousands of kitchen gardens have been created in the Bangalore area from here.

"IT companies, Ayurveda resorts and spas are asking for these plants," says Dr Haridasan. "A garden has been built by us in Hyderabad's Genome Valley. There is scope of going commercial. We are backed by a great knowledge base."

Dr Haridasan says FRLHT has a village botanist programme which teaches villagers to identify plants and educates them on IPR issues. This knowledge can be used for local health needs, tourism or for forest department surveys. There is also a plant identification course

IN SITU CONSERVATION: Conservation of medicinal plants is where FRLHT began in 1993. This conservation took place in forest habitats. Since then the programme has covered nine states created 84 conservation areas for medicinal plants. These areas serve as wild gene pools. India is now a world leader in the in situ conservation of medicinal plants.

FRLHT has had to work with the forest department and sensitise its staff, who have gone from being completely apathetic to medicinal plants as a forest community resource to now actively participating in efforts for their conservation.

GA Kinhal of the Madhya Pradesh cadre of the Indian Forest Service is on deputation with FRLHT and oversees this programme. Kinhal says there has been a lot of learning among foresters.

"Most of all I have learnt to be persistent on certain aspects of forestry and to engage in community dialogue. There is a lack of interaction between society and the forest department," he says.

Kinhal emphasises the importance of sustainable harvesting of medicinal plants. These plants should be planted within appropriate forests by the forest department to preserve the gene pool. "Cultivating species for industry does not mean conservation," he clarifies. To conserve, the causes of depletion should be removed.

Using a mix of traditional and scientific knowledge he has helped work out how and when medicinal and aromatic plants should be harvested. The role of the community is essential in this process. Plants harvested at the right time and using the correct method are easier to preserve after processing. Similarly seeds when collected at the right time yield more oil.

IT AND TRADITIONAL KNOWLEDGE: Since 1995, engineered by DK Ved, FRLHT has been putting on to computer the botany and material medica of traditional systems. Dr SN Venugopal is an Ayurveda physician who works on digitising the texts so that they become easily available. He has built a huge database of 125,000 plant names used in Ayurveda. From the Charaka Samhita he has identified 12,875 Sanskrit names of plants. "After grouping these we get 620 plants," he says. There is detailed information on each plant: its formulations, properties, qualities, critical comments, botanical name, identity. There are pictures of each plant.

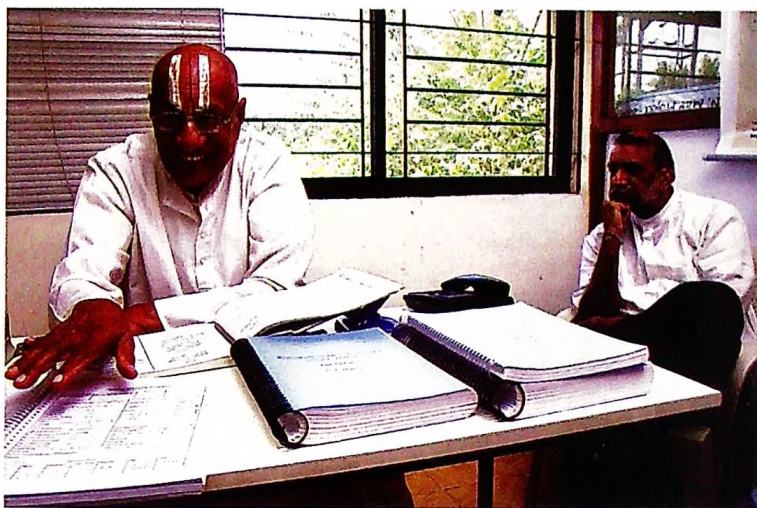
Plants from Siddha have also been computerised. Dr Venugopal designed software for this documentation. A complete grouping of plant names from the Charaka Samhita is available on CD from him for Rs 250 for students and educational institutes.

GRAM MOOLIGAI COMPANY: FRLHT's work in mobilising communities and helping them use their local knowledge remains hugely exciting. The challenge before FRLHT lies in taking communities to the market through various connections.

FRLHT has been instrumental in the setting up of the Gram Mooligai Company whose shareholders are rural women and small and marginal farmers. It is registered under the companies act and in the past three years has done total business worth more than Rs 1 crore.

The company cultivates and collects herbal plants and produces products from them such as a natural remedy for cows.

MALARIA DRUG AND A COUGH SYRUP: FRLHT seeks to bring back local health solutions in rural communities in southern India. To do this it has sponsored conventions of folk healers at the district and state levels. It has also been giving awards to outstanding folk healers.



Professor Lakshmi Thattachar



GA Kinhal



Dr Venugopal



Some of the community outreach team



At work in the herbarium

This has led to the evaluation of local remedies. An interesting trial was conducted in districts of Tamil Nadu with a local cough remedy. Its efficacy was measured against allopathic prescriptions. The study was done by M Abdul Kareem of FRLHT in collaboration with the Christian Medical College in Vellore. It showed that the local remedy was more effective. A study for scabies yielded similar results.

Dr MNB Nair was asked by the Kannada Milk Federation (KMF) to help out with health ailments faced by their cattle. Nair worked with folk healers to identify 190 herbs. Five inexpensive medicines which could tackle mastitis, wounds, repeated breeding were made. KMF has got a licence to make the mastitis medicine which costs only Rs 60.

Similarly, herbal formulations have been found to inhabit malaria in the liver. "Traditional healers give different medicines for different types of fever," says Dr Prakash BN, who heads the malaria research programme. These fevers and medicines were identified. A number of observational studies were done, including in Mayurbhanj and Keonjhar districts of Orissa. The group given the preventive herbal medicine did not develop malaria. Around 10 formulations have been identified and FRLHT will be collaborating with the Indian Institute of Science, Bangalore to commercialise these.

The involvement with folk healers has also involved evaluating the work of bone-setters. Says Dr Lokesh, "Our studies have shown that they can handle simple fractures and dislocation, but not the complex ones."

The benefits of folk medicine at an affordable cost has prompted FRLHT to work with other NGOs and self-help groups of women to promote over 200,000 home herbal gardens across the southern Indian states and in Maharashtra, Orissa and Chhatisgarh as well. Pushpa HK, a life sciences graduate says for urban residents, a complete package of 21 plants costs only Rs 300. Advice on how to look after the plants is readily available from FRLHT. Twenty plants have been identified for primary healthcare. The home herbal garden is being promoted with herbal formulations to tackle anaemia in Chittoor district of Andhra Pradesh said Dr Nagendra. Women are encouraged to grow greens in their backyard. Around 161 herbal formulations for anaemia have been short listed.

Dr Nagendra has been organising folk healers. "Each village has one or two but they have no common platform," he says. A folk healers network of 150 associations has been formed in nine states. They have been taken for exposure visits and three state conventions have been held. "These are the last generation of folk healers," says Dr Nagendra.

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