

TRANSFORMATION TALE

Lessons from nature

An educational institute stands on a patch of land that was bone-dry and barren two decades ago. Today, it is a veritable repository of botanical wealth and animal life, writes *MA Siraj*

The 172-acre verdant campus of the Agastya Foundation at Kuppam, 90 km east of Bengaluru, is a study in the regeneration of nature in a land that had been systematically denuded of its forests and exploited in pursuit of gold mining at the KGF and its outskirts.



Having been degraded, it had lain in total neglect for nearly a century at the tri-junction of the states of Karnataka, Tamil Nadu and Andhra Pradesh.

The landscape of these hills and valleys was bleak and barren. The blazing inferno of summers would scorch the earth and turn it into an oven. It was difficult to get water even at the depth of 1,000 feet.

But the fate of the land began to change by the turn of the century when the organisation selected the area to set up its campus to nurture scientific thinking among school children hailing from underprivileged and rural families.

Shaded by canopies

Today, the premises stands transformed with canopies of nearly 85,000 trees providing shade for a variety of creatures. At the last count, it had over 600 plant species, 104 species of butterflies, and 21 species of reptiles.

The foundation built 22 mini check-dams and dug eight percolation pits to capture the maximum amount of water flowing down the hills, which receive the

annual precipitation of nearly 80 centimetres.

A technical study conducted by the Indian Institute of Science (IISc) team in 2014 revealed that vegetation cover increased from 11% to nearly 19% in the campus and the vicinity and the Agastya ecology team estimated that the vegetation cover increased to nearly 30% by the end of 2016.

Agastya is now a midway stop for around 20 species of migratory birds.

Regeneration

A noted environmentalist from Bengaluru, Yellappa Reddy, one of the founders of Agastya, says when they chose the piece of land, it was barren and a massive effort went into regenerating it. Nothing except weeds grew there. But being part of the Eastern Ghats, it received sufficient rains to be developed into an ideal campus for an educational institution.

A team of experts from the IISc, bot-



Butterfly park in Agastya Foundation's campus in Kuppam.



Geoglyph figures at the herbal garden.

anists and hydrologists devised a cogent plan to develop the campus as a self-sustainable model soon after the land was acquired in 1999.

To begin with, nearly a lakh of saplings were planted across the area. As a water-conservation strategy, semi-circular saucers were dug on the slopes and full-circle depressions were created around each sapling after each had firmly established itself.

These saucers were capable of trapping 10 to 30% of rainwater. They encouraged infiltration progressively. Today in every

saucer, the root biomass grows laterally as well as vertically, facilitating the rainwater to seep to greater depths thereby recharging the aquifers.

Says Laksh Kumar, project manager, Ecology, at Agastya: "Thanks to the water-conservation efforts, water can now be struck at a depth of 210 feet in the bore wells located on the campus, while in surrounding areas, the average depth ranges between 550 and 600 feet."

Another measure was to use drip irrigation for the landscaped gardens in a 10-acre area.

waste is sent over to Kuppam town for the town's civic-disposal system.

Thematic gardens

Agastya developed a series of herbal gardens themed after the description in the hoary scriptures and ancient medicinal tomes, each dedicated to trees of specific properties. Mulikavana, which came up in 2005, is a herbal garden patterned after three geoglyph figures of a man, a woman and a child. Pancha Valkala has keystone species such as banyan, peepal, Indian fig and Mysore fig.

Gayatri Vana hosts nearly a hundred varieties of plumeria where flowers in entire VIBGYOR colours can be seen. The two-acre Shabari Vana is meant for trees of endangered species.

Currently, it has 80 trees of 40 species. Panchavati garden, Saraswathikund and Balavana are other thematic gardens developed here. A butterfly park came up in 2014 for the development of habitat for different butterfly species within the campus. A total of 103 species were observed during the period.

The vegetation in the campus now hosts 55 species of spiders. An 18-member ecology team of Agastya is engaged in outreach work by distributing medicinal plants to over 50 villages in the region. Ramji Raghavan, a co-founder, says, "Perhaps our work in revitalising the land of Agastya will be our most enduring legacy."

System of a support

COMMUNITY WELL-BEING

A healing centre in Mysuru district has built an impressive ecosystem most suitable for people with special needs, writes *TR Sathish Kumar*



Children of Anahata being taught how to make organic biscuits. (Below) Residents of the centre engaged in rehabilitation exercise.

Ashwini, 18, suffered isolation for over 17 years due to a nervous-system condition that left her limbs and vertebrate unstable. She could not attend school and was dependent on others.

Her mother Eramma of Malagarankere, in Ravandur hobli of Periyapatna taluk, learned of Anahata (unstruck) — a healing arts centre in Ravandur village — from those who had received treatment and trained there.

Eramma visited the centre with Ashwini, who ended up spending four months there. Now, Ashwini is on her own, albeit in a small way. She teaches yoga at the centre. "I've realised my abilities. My potential was identified by Anahata. I will stay here and teach yoga to people with special needs like me," she said.

"She was doing well in yoga. So, we gave it a priority while training her," added Kiran Ravandur, the founder of Anahata. Anahata is located on a lake bank within scenic farmland. It offers programmes in detoxification, yoga, aqua-yoga and medication on donation-basis, besides providing free rehabilitation, treatment and care for physically-challenged children and adults.

Beginnings

Kiran has been exploring natural healing for over a decade. He has worked in Muscat, Germany and South America as a masseur and therapist. This led him to teachers the world over, and some assisted him in developing a foundation for his own spiritual path. But his love for his

village brought him back. And his interest in sports, yoga, and physical therapies enabled him to create a space for people's mental and physical well-being. He founded Anahata in 2014.

Hope and reality

Krishnegowda, a resident of Kestur under Chunchanakatte hobli, K R Nagar taluk, carries his 25-year-old son Ashok on his back. Ashok has a nervous-system condition, which reared its head after his IPUC.

The father said that nerve problems and instability are hereditary in his family.

"My elder son Puneeth died of a similar problem recently. He was 29. My wife died soon after Puneeth's death. I didn't want to take a chance with Ashok's health. So, I visited this centre with him for two months. As travelling became a problem, I decided to stay here. I see positive changes in my son," he said.

Kiran pointed out that people with special needs are at the receiving end of ridicule and isolation, and their families face social stigma.

"The problem is grave in villages. So,



We have differently-abled persons, elderly persons and also guests, who help each other.



we focus more on people with special needs. I happened to work under good people and could empathise with those who need help. So, I could to set up this centre," Kiran said.

Self-supporting

Kiran said the centre is an ecosystem in itself. "We grow most of our food resources on the farm, naturally. All our employees are from our village and those around it. We have differently-abled persons, elderly

persons and also guests, who help each other. Our guests are required to choose from a list of chores. It's termed Karmayoga," he said.

Thomas, a tourist from Brussels, Belgium, looked up for a place like Anahata to volunteer at while he was touring in the state. "I'm here for 10 days. I spend time with differently-abled persons, take care of their needs, and also rediscover myself," he said.

For details, visit: anahata-healing.com

MISCELLANY

Into the light

VARSHA GOWDA

Harshiya Banu had a 75% defect in eyesight by birth. Not deterred by this, her parents, Arsikere Kareem and Rihana Banu, admitted her to Shri Basveshwara Higher Primary School, in Arsikere, Hassan district.

She fell in love with studying and the sheer routine of going to school. "Every night I would pray that the day would come sooner so I could go to school again," said the 32-year-old Kannada teacher.

However, school didn't come easy for Banu. When she was in class 3, many teachers recommended that she should be admitted to a blind school.

"My parents weren't ready to part with me, and besides, at the time I wanted to be a doctor. And if I went to blind school, that wouldn't have been a possibility," she said.

In school, she was frequently bullied by friends and family for her visual impairment.

"People would often say that we would have to take care of her for the rest of our lives," said Rihana Banu, Harshiya's mother.

This did not discourage Banu; in fact, it pushed her to achieve more.

Studying science after class 10 was not a possibility. "I would have to do lab experiments, and handle acids in beakers," she explained.

This was when, on the advice of several teachers and her parents, she had to reconsider her choice.

Harshiya's mother had been insistent that she should become a teacher. "Teachers are very important in students' lives. They can inspire many people to take up difficult career options, and from my daughter's life experience I was sure that she would grow to be a great teacher," said Rihana.

In fact, in Adarsha Vidyalaya of Kolar district, she was one of the first teachers to think of a language-learning lab. Here, she made models for easy learning of grammar elements like *othakshara* in Kannada language. Harshiya Banu uses teaching learning materials (TLMs) in an area that many teachers stick to chalk and board learning. "I want students to be thoroughly engaged in learning. So I make charts on grammar, about subject-verb agreement, about *kaugunitha* and *varnamala*, so children can form flowcharts in their minds," said the teacher.

"People often think that only subjects like Science and Math allow for experiments, but that is untrue. Language involves daily experiments," she said.

Harshiya even ideated a wall magazine, where students can display their forays into the world of literature. These efforts were even appreciated by



Harshiya Banu uses teaching-learning materials in the classroom.

the Department of Education officials.

"I was disappointed to lose the chance to learn science, but when I started teaching Kannada, it felt like a dam had burst," she said, adding that language aids certain forms of knowledge. "So when you lose access to that language, you lose that knowledge."

Her love for the language also led her to author poems.

Her colleague, Nirmala K, in Adarsha Vidyalaya testifies her love for the language. "Her love for Kannada led her to attend and organise many cultural events in our district, and even though she is from Arsikere, she managed to become a well-known figure in Kolar," she said, adding that her work ethic was unlike anything she's seen. "She would have 25 to 30 classes in a week, and she'd handle them with ease. It was evident to the children that she was dedicated to her work."

Harshiya's relationship with her students is enviable. In fact, her ringtone is a Kannada song that the students enthusiastically sing about her.

"They are so open! The best way to get them to learn is to listen to them and understand their troubles," said Harshiya. Her students reciprocate this tenderness.

Ankita R, her former student, said, "She believed in learning by doing, and that helped me learn Kannada better. It also became a life lesson for me as it taught me the value of actions."

Currently, she is teaching at a school in Shraavanabelagola.