

# Abrah Dresdale's headed for India

GCC's farming teacher to build sustainability skills



Abrah Dresdale, Instructor of Farm and Food Systems at Greenfield Community College, with fresh local produce at Green Fields Market. Franz

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At first blush, it seems hard to imagine a place more different from Franklin County than Tamil Nadu in southern India.

Amid 70 acres of severely eroded “tropical dry evergreen forest” a few kilometers from the Bay of Bengal, an Israeli couple began reforestation and water conservation efforts a decade ago with a program called Sadhana Forest.

Those efforts, attracting volunteers from around the world, led to the site being part of Living Routes, a hands-on educational program affiliated with the University of Massachusetts to build communities demonstrating sustainable actions to repair the degraded environment.

Closest to home, Sirius Community in Shutesbury is one of seven Living Routes sites around the world, with college-credit courses in permaculture and green building and design. Halfway around the planet, at Sadhana Forest, students join about 100 volunteers as part of an intentional community in organic gardening, natural fence building, compost soil management and contour bunding — an approach of putting stones around the contours of slopes to retain rainwater during monsoon season to soak the soil, increasing productivity while also preventing erosion.

Some of this work in building a sustainable community and food security might come naturally to Abrah Dresdale, who coordinates the Food and Farm Systems program at Greenfield Community College, where she's helped to plan a permaculture garden, build a curriculum and teach old skills for adapting to changing conditions on the planet.

In India, she'll live in the off-the-grid, solar-powered, intentional village of volunteers from India and around the world while also taking a college-level course in low-carbon living as one of about a dozen students from around the United States.

But Dresdale, who this year won Conway School of Landscape Design's David Bird International Service Fellowship, is gearing up for a six-week encounter with a different climate, different culture and different set of issues than what she knows. Dresdale earned a master's from Conway in 2010.

"This is pretty exciting," says Dresdale, who's already begun reading and making preparations like getting her visa and "tons of vaccinations" for the mid-December to mid-January trip. In teaching her classes, she's used Vandana Shiva's book, "Hijacking the Global Food Supply," and said, "I've been fascinated by India's food system for a while."

Belly of the beast

Going to India to learn about sustainable living and food systems is a little like going into the belly of the beast.

Decades of industrialized farming to feed one of the world's most populous countries by using high-yield approaches like chemical pesticides and fertilizers have left the soil degraded, introduced chemicals into groundwater and caused a slew of other environmental problems.

“There’s a huge movement in India for native seed saving and looking at other forms of agriculture,” says Dresdale. “The Green Revolution came in and kind of wiped out all small farmers, and there are a lot of challenges going on, with a lot of land that’s been devastated by poor farming practices. This (Sadhana program) is just one tiny drop, but I’m excited to go and network and connect more,” helping to raise awareness about permaculture approaches like edible forest gardens to help feed India’s population of nearly 1.3 billion — set to be the world’s most populous nation by 2045 — and also to help regenerate India’s forests.

In India, she says, “I’ll be working with people with diverse sets of values and needs. I’ve never worked in that particular climate and ecosystem, so I don’t know what the soil is like and I have to learn the monsoon patterns. There’s a whole bunch of stuff I have to research now and then, and be prepared to be flexible and adaptable, to listen and respond to the feedback, to work with the community.”

Living in simple, grass-thatched huts serviced by composting toilets, Dresdale and other community volunteers will plant native species as part of the massive reforestation project while using small-scale earthwork construction to capture rain water.

Sadhana Forest is part of Auroville, an international township created in the 1960s in part to replenish an area that’s suffered destruction of forests, erosion and monsoon damage as well as seriously dropping the water table.

“In less than 200 years, what once had been forest had turned into an expanse of baked red earth scarred with gullies and ravines which had been carved out by the monsoon floods,” says the official Auroville website. “Each year tons of the remaining topsoil were swept into the nearby Bay of Bengal.”

The largely volunteer efforts over the past five years have significantly helped raise the area’s water table, says Dresdale.

Edible Indian forest?

The trained landscape designer, who helped Northampton and Greenfield develop food system studies and teaches courses in food systems, permaculture and sustainability at GCC, plans as her Sadhana Forest program “capstone project” to create an edible landscape design for the village’s residential area, as a way to help with reforestation and food security.

At GCC, that involved meeting with students and other community members to create a permaculture garden that grows perennial crops like berry bushes, sea kale, teas, herbs and more. In India, she also hopes to mentor fellow students and offer workshops to share her knowledge, and is also seeking their help in researching indigenous plants that can be incorporated into a design.

“I know nothing about the plants that grow there,” says Dresdale. “I’ve done some research, but I’ve got lots more to do.”

Adding to the complexity and the urgency of that work is the unknowable “climate chaos,” as she calls it, with the understanding that any designs for plantings need to allow for weather patterns that will more than likely shift over time.

“If we’re going to want these to be perennial crops primarily, we can’t plant something that’s going to do OK but is not going to do OK in 10, 20, 25 years,” she says. “That’s an unknown but an important thing to factor in the design — choosing resilient species that will withstand change, that maybe have a broader hardiness zone range, or maybe not putting in plants that need a cold season.”

The uncertainties of climate in a nation that's home to one-third of the world's poor and has also seen unprecedented heat waves, cyclones, floods, coastline salinization and effects of fisheries, agriculture and health, will have to take into consideration the proximity to the Bay of Bengal, with the possibility that coastline communities may start moving farther inland.

"It's important to start sequestering resources," says Dresdale.

Sadhana Forest already has a small permaculture garden, according to the village's detailed website, growing various gourds, beans, okra, tapioca, pineapple, watermelon and sweet potatoes as well as mango, papaya and banana trees, but the soil is described as "very poor."

Dresdale, who will bring her drafting supplies along on the plane, expects to write an essay about her experience for presentation at the Conway School as well as at GCC after she returns in January.

As the college looks forward to expansion of its permaculture garden space, with build-out of its new greenhouse and development of a botanical garden, micro-orchard and water catchment system, Dresdale says she hopes the India experience will help her understanding of how to best develop its Sustainable Agriculture and Green Energy education center for the region's visiting teachers and students.

"I can't wait," she says. "There it's supposed to be between 68 and 82 (degrees) all the time I'm gone."

On the Web: [www.sadhanaforest.org/](http://www.sadhanaforest.org/)

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