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What Works

From the Ground Up: ATREE crossed sectors to breed a new species of conservation agency

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From the Ground Up

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The Western Ghats, a mountain range running 1,000 miles down the western coast of India, is one of the world's natural treasures. With rain forests, dry forests, swamps, and rivers, the range is home to 1,600 flowering plants found nowhere else on the planet, as well as to scores of endangered animals, including tigers and elephants. No less important, millions of people live in the Ghats, and many of their livelihoods are intertwined with the region's natural bounty.

But in 1993, when botanist Kamal Bawa received a World Wildlife Fund grant to help the Soligas, an indigenous tribe living in the Ghats and dependent on forest products, he found a region devastated by deforestation and misuse. In the developed world, fragile ecosystems often enjoy ample research describing them, organizations attempting to preserve them, and policies protecting them. But all Bawa saw in the Ghats was a patchwork of government protections that amounted to little more than a conservation Band-Aid. Most of the existing research was irrelevant to the Ghats' problems or didn't link to government policies. NGOs tried to help, but they invariably overlooked the social and economic aspects of conservation.

As part of ATREE's Eastern Himalayas Programme, a woman grows organic vegetables to supplement her family's income. ATREE protects fragile ecosystems, including the humans who rely on them.

Meanwhile, the Ghats faced pressures from mining, dam building, and development. Population growth threatened protected areas, and relations had broken down between communities and government. Solving these problems "would require a long time and a wide perspective, and therefore an institution that was solely committed to addressing [them]," says Bawa, who is now a biology professor at the University of Massachusetts Boston.

In 1996, Bawa founded just that kind of institution: the Ashoka Trust for Research in Ecology and the Environment (ATREE; no relation to Ashoka, the organization that supports social entrepreneurship). Part academic institution, part activist group, part think tank, ATREE reaches across sectors to give India—as well as the rest of the world—something it never had: an environmental organization that combines natural and social sciences, conducts research on conservation and sustainable development, trains scientists, works with local communities to implement best practices, and advocates for evidence-based environmental policy. What started out as a four-person organization has since grown into the crown jewel of Indian conservation, employing 140 people and training scores of Indian scientists at four centers.

Pure Application

In academics, India is best known for sophistication in the physical sciences. The nation has yet to embrace conservation biology. It also hasn't developed the web of institutions needed to translate evidence into action.

Academic institutions in wealthier countries, in contrast, exist in a mesh of nonprofits, government agencies, and other organizations that put scientific insight into practice, wrote Bawa and his colleagues in the Jan. 11, 2008, *Science*. Universities are also free to pursue knowledge without concerning themselves with its application. But as India struggles to balance environmental health with the demands of a billion people, pressing problems demand practical research. "The alleviation of poverty and environmental sustainability should be explicit goals for which knowledge must be generated," wrote Bawa.

Enter ATREE, which is made up of three departments: a center for conservation science that drives pure research; an eco-informatics center that disseminates knowledge; and a center for governance and policy that turns research into practical prescriptions. People move between the groups, and programs draw from all three. "ATREE is like a university department of ecology, of which there aren't very many in

PHOTOGRAPH BY NISHAT REHMAN

India," says John Vandermeer, a University of Michigan tropical ecologist who visited the organization last year. "Eventually ATREE will be viewed as a pioneer."

Since its inception, ATREE has produced hundreds of scientific articles chronicling the natural dynamics of the Western Ghats and other threatened regions. It is also one of the first organizations to link biodiversity to human well-being. For example, ATREE scientists discovered that the timber species the Soligas people use for their crafts could not grow fast enough to replenish themselves. As a result, the organization convinced tribal groups to use lantana, a fast-growing invasive species, rather than the slow-growing native timber. Likewise, the organization teaches hillside farmers to plant crops in rows that run with the contours of the land—a practice that prevents erosion and saves water—and introduced soil-friendly crops.

"It's research combined with action," says Bawa. "We identified a biological problem, its social and economic aspects, and the action needed to address that problem."

With the People, for the People

Connecting ecology to the lives of inhabitants, as ATREE does, rarely happens in traditional academic departments. "[ATREE staff are] very happy to work with local people, not against them, and that's very important," says David Ehrenfeld, founding editor of the journal *Conservation Biology*.

ATREE's most lasting contributions, however, may go beyond the outcomes of specific projects. When Bawa founded the organization, India lacked qualified personnel. Citizens interested in conservation biology went elsewhere to study or pursued other types of research. Instead of importing scientists, ATREE trains its own—more than 100 so far, all with a stake in and sensitivity to local issues.

"It's not like that in many countries, where you don't have enough local scientists with the appropriate training," says Nina Marshall, a program officer at Conservation International, which recently started working with ATREE in the eastern Himalayas. "It's easy to hire scientists from the U.S. and Europe. My organization, and ATREE as well, feel that this is not the best strategy."

MINT NEW INSTITUTES

- Invest heavily in training people
- Unite organizations around clients' needs
- Nurture tight relationships between organizations
- Combine research with action

The range of expertise and local knowledge has made ATREE a vital source of information for India's government and an ideal partner for international conservation groups. "It's a great thing to work with organizations that have an ability to see the big picture," says Marshall. "They can do so many aspects of what we're all trying to achieve. It's rare to have both the skills and the vision."

To Grow ATREE

ATREE has enjoyed policy and practice victories as well. The organization successfully pushed for a ban on mining in India's national parks. It also drove a prohibition against using plastic in the Kalakkad Mundanthurai Tiger Reserve.

But on other fronts, ATREE's results have been mixed. It has reformed some farming and forestry practices in the Western Ghats, but not to the extent that Bawa had hoped. And although ATREE has produced a vast body of literature and recommended policies, the Indian government has not yet fully implemented them.

ATREE's job is to show what can and should be done, and so it still relies on government agencies, communities, and other nonprofits to carry out its recommendations. That multi-stakeholder approach is part of the organization's ethos, but it is necessarily limited. An ongoing project in the development-threatened Vembanad Lake region has provoked soul-searching over whether ATREE should be more active in implementing its own advice.

"I don't think we've resolved that issue," says Bawa. "There's a fear that it would fundamentally change who we are. I personally would favor more action-oriented programs, but that would require far more resources, and also a different type of thinking. And it would not be in the interest of ATREE to push for that at the moment."

Funding ATREE can also be tricky. International foundations, local foundations, government, and expatriates provide ATREE's $1 million annual budget. Bawa points out, however, that foundations often pursue narrowly focused projects, rather than building infrastructure. "There are easily 15 or 20 foundations internationally active in India," says Bawa, "but [the Ford Foundation] is the only one giving support for institutional grants, not just project grants."

Despite these struggles, ATREE has inspired other countries with environmental problems, a shortage of homegrown researchers, and a dearth of NGOs. "The ATREE model with modifications to suit the local context is replicable," wrote Bawa in an e-mail. "When I talk about ATREE, people from other countries often come and ask me how they can have an ATREE unit in their countries." □