

Yale Tropical Resources Institute: Envisioning Synthesis and Synergy

Mission

The Mission of the Tropical Resources Institute is the application of interdisciplinary, problem-oriented, applied research to the creation of practical solutions to the most complex challenges confronting the management of tropical resources worldwide. Lasting solutions will be achieved through the integration of social and economic needs with ecological realities, the strengthening of local institutions in collaborative relationships with international networks, the transfer of knowledge and skills between local, national, and international actors, and the training and education of a cadre of future environmental leaders.

Vision

The problems surrounding the management of tropical resources are rapidly increasing in complexity, while demands on those resources are expanding exponentially. Emerging structures of global environmental governance and local conflicts over land use and environmental conservation require new strategies and leaders who are able to function across a diversity of disciplines and sectors and at local and global scales. The Tropical Resources Institute aims to build linkages across the natural and social sciences and among government agencies, academia and practitioners, enabling the formation of successful partnerships and collaborations among researchers, activists and governments. The Tropical Resources Institute seeks to train students to be leaders in this new era, leveraging resources, knowledge, and expertise among governments, scientists, NGOs, and communities to provide the information and tools this new generation will require to equitably address the challenges ahead.

Dear Readers,

As editors of the 2006-07 Tropical Resources Bulletin, we are very proud to present this year's issue. The topics and voices included in this volume represent the breadth and wealth of knowledge of the students at the Yale School of Forestry and Environmental Studies. They also provide a glimpse into the challenges that are emerging in the realm of environmental management and the new perspectives on developing solutions to those challenges.

The majority of this year's authors tackled research on topics of a social nature, where environmental problems and the social dynamic interact. Only a few of the stories are set in the Western Hemisphere, and the topics are sufficiently broad that they range from the conservation of caterpillars to the proper promotion of a protected area. Almost all boil down to a fundamental topic that pervades the discussion at F&ES: environmental issues can be solved more readily, sensitively and permanently by engaging local communities and developing consensus and ownership of solutions.

The first set of articles consider the difficulties inherent in the development and maintenance of protected areas, which are swaths of land or ocean set aside by governments, communities or nonprofit organizations (NGOs) for the purpose of protecting flora and fauna. Alvaro Redondo, who focuses his research in his homeland of Costa Rica, describes the challenges of connecting a series of protected areas for the purpose of establishing a biological corridor, while considering the needs and desires of the local people. Catherine Benson discusses particular marine protected areas in Papua New Guinea and the need for better communication between NGOs and local landowners, claiming that an organization's declaration of protection does not necessarily mean it is protected or that it has not been protected in the past.

Conservation of water is another topic of great concern to the F&ES community, and is justly represented among the TRI fellows. Jessica Albietz, a TRI fellow from 2005, conducted research on the impact of slash and burn agriculture, known as *savoka*, on the water quality and quantity in a set of watersheds in Madagascar. Looking at a much more urban setting and political framework, Kathryn Neville outlined the impact of the Asian currency crisis on the structure of two newly-privatized water companies in the Philippines, arguing that the internal management strategies of the companies and the regulatory structure were factors that caused one to become crippled while the other survived.

Two authors focused on differences, similarities or interconnectedness between rural and urban areas. Jennifer Lewis describes how the emerging market of açai affects the way island communities along the Amazon River connect socially and economically with the larger metropolitan area of nearby Belém. Comparing indoor air quality in rural and urban environments in China is the focus of Ruoting Jiang's work, through which she found a substantial public health concern in rural households due to biomass consumption.

The social implications of conflict and resource extraction in rural areas of Nepal and Bhutan are also examined. Rachele Gould outlines the local impact of the lack of proper management of a highly valued resource in the highlands of Bhutan, a fungi-infected caterpillar valued for its

medicinal properties. Across the border in Nepal, Krishna Roka researched the community forestry institutions to determine how they were impacted by the conflict between the government and the Maoists.

One of the authors tackled an exceedingly difficult issue, but one that affects almost all social science researchers in the environmental field. Brandon Whitney describes the inner conflict experienced by a researcher when observing an NGO making a decision that impacts a local population without consulting those people. He argues for the development of a hybrid role, through which social (and other) scientists conducting research are allowed to be engaged in an issue and offer knowledge and opinions while documenting the situation.

This volume clearly reflects TRI's philosophy of supporting leaders that can effectively cross the traditional boundaries between disciplines, taking a more holistic approach to environmental issues by engaging the human element. For many of the authors, this has been an exciting and unique opportunity to explore research areas beyond their previous training. In that sense, these articles are the product of their willingness to take risks and venture into unknown territories, which required learning new skills and seeing new perspectives. The effort has paid off, as for many this marks the beginning of a truly interdisciplinary career. Please enjoy!

Alicia Calle, MEd 2008 and Colleen Morgan, MEM 2007

TRI director Lisa Curran awarded John D. and Catherine T. MacArthur Fellowship

Lisa Curran, professor of tropical ecology and director of the Tropical Resources Institute at the Yale School of Forestry & Environmental Studies, has been awarded a five-year John D. and Catherine T. MacArthur Foundation Fellowship.

In announcing the award, the MacArthur Foundation said, “Through diplomatic skill, cultural sensitivity and rigorous scientific acumen, Lisa Curran synthesizes concepts from the natural and social sciences to forge new, practical solutions for sustainable natural resource extraction and development.... By developing consensus and fostering communication between diverse stakeholders, she is substantially increasing protection efforts in endangered regions.”

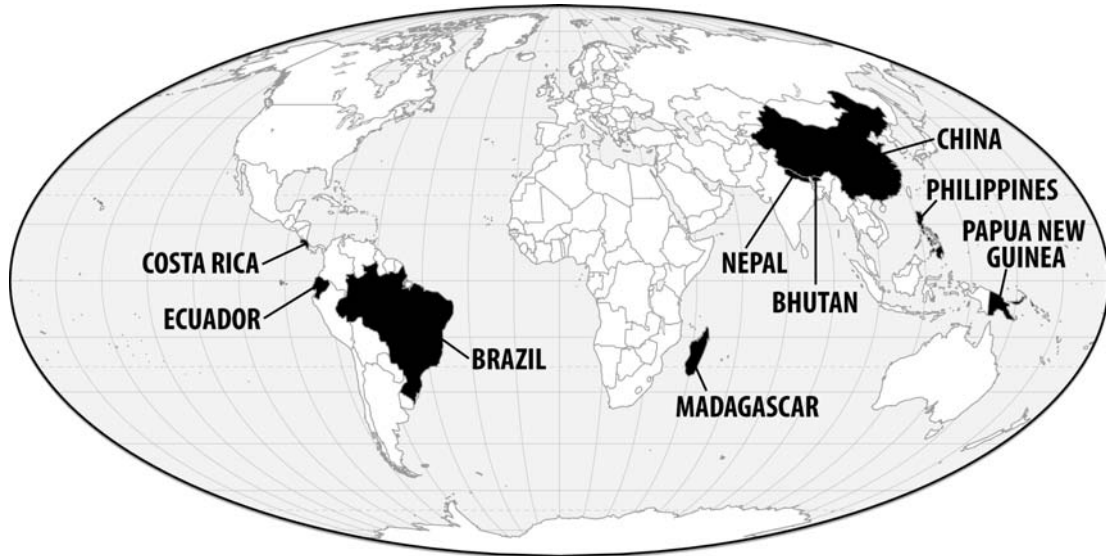
Curran has focused her research on the forests of Borneo and the ecology of its most economically important family of tropical timber, Philippine mahogany. She has worked to devise new strategies to address deforestation and its devastating environmental consequences. Curran and her research team study the structure and dynamics of tropical forests using satellite remote sensing, field ecology, ground-based surveys and analysis to learn how the environment is altered by human activities and to improve the management of these forests by integrating scientific knowledge with the sociological, political and economic realities on the ground. She has been instrumental in the establishment of national parks in Indonesia and has worked to counter illegal logging and the corruption that allowed it to take place.

“I’ve had an unusual career trajectory,” Curran says. “I tend to be a problem solver, which requires me to think outside the box. I’ve had to use creative ways to acquire the information I’ve needed to address the issues in this emerging new field, sustainability science. I understand the needs of the activist seeking change, but fundamentally I am a scientist, seeking knowledge. My research is collaborative and interdisciplinary. I provide sound science so Indonesians can address these complicated issues. I provide training and information for them.”

Curran is one of 25 MacArthur Fellows. Others include a developmental biologist, sculptor, country doctor, jazz violinist and deep-sea explorer. All were selected for their creativity, originality and potential to make important contributions in the future. The recipients will each receive \$500,000 in unconditional support over the next five years.

The John D. and Catherine T. MacArthur Foundation is a private, independent grant-making institution dedicated to helping groups and individuals foster lasting improvement in the human condition. For more information, visit www.macfound.org.

2006 TRI Fellows in this issue



Bhutan:	Rachelle Gould
Brazil:	Jennifer Lewis
Costa Rica:	Alvaro Redondo Brenes
China:	Ruoting Jiang
Ecuador:	Brandon Whitney
Madagascar:	Jessica Albietz
Nepal:	Krishna Roka
Papua New Guinea:	Catherine Benson
Phillipines:	Kate Neville