



## Letter from the Director

DON MELNICK

I've learned much from my parents. My mother taught me that words like "ugly" and "stupid" have no meaning and words like "hate" have no purpose. She taught me to stand straight, look people in the eye, and tell the truth. My father, a practical man, taught me to be prepared. He was a Boy Scout and a master electrician. He also told me that if all you have is a hammer, everything else looks a lot like a nail. As I prepared myself for my first day as a construction worker, he made sure I had as many tools in my bag as I could remember how to use. The bag was heavy, but even on that first day, many of those tools were essential to getting the job done.

The gap between the richest countries and the poorest is large and growing. Natural land cover continues to shrink at an alarming rate. Diseases thought to be limited in their geography and epidemiology are spreading across the globe, targeting the physically weak and immunologically naïve. We see extraction of natural resources by those who have no choice and by those who choose to profit at the expense of their compatriots' long-term future.

Seeing this, we would be foolish to believe that the environmental crises we confront have one overarching solution that can be applied across all continents, countries, and communities. Such a solution simply does not exist. Just as I was asked to do on my first day on a construction job, we must all do now for the environment – bring as many tools as we can to the job of conserving biological diversity. We must attack problems of unsustainable resource extraction and their reverberating effects on poverty, health, biodiversity, and the ecological integrity of our planet, with as diverse a set of tools as possible.

These tools are in the natural sciences of molecular biology, population genetics, ecology, demography and remote sensing, as well as in the social sciences of anthropology, economics, political science, and law. They will involve tools of genetics, ecology, and remote sensing to pinpoint critical areas of ecological and genetic diversity for strict protection, tools of human ecology and anthropology to develop agroforestry systems for environmental restoration, and tools of economics, business, and policy to create market mechanisms and government policies that will both remove the perverse incentives that destroy our environment and create market forces to preserve it. Perhaps most importantly, we will need to use the tools of educators to build a worldwide capacity to manage our natural resources in the face of ever increasing pressures to eliminate them.

In the coming months, CERC will broaden its portfolio into many of these areas. We have neither lost our marbles nor our way. Indeed, the way to our goals will become clearer as we pursue these new avenues. We will not only pursue them through basic research, but also through building cadres of scientists and practitioners as part of existing and new education and training initiatives. Circumstances have challenged us to assemble a diverse tool kit for biodiversity conservation and we will meet that challenge.

Enjoy the rebirth of spring, and Happy Mothers and Fathers Days.

Sincerely,



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## Letter from the Director

DON MELNICK

As a little boy, one of my favorite activities was lying on the grass and watching puffy cumulous clouds race across the sky. Needless to say, the neighbors were somewhat skeptical about my mental health and my future. Yet to me, the most exciting part of this atmospheric spectacle was the discovery that if I focused on the clouds, the ground below me felt as if it were moving. This change in perception was at once enormously satisfying and disappointing. Satisfying because I felt in control: I could make the Earth move! As the youngest of four brothers, you can be sure I was in control of little else. It was disappointing, however, because no one else seemed to perceive what I could. My newly gained perspective had an audience of one, which was not very satisfying.

While presenting a case for biodiversity conservation at the recent World Summit in Johannesburg, I had a similar sense of having a perception disconnected from that of others - but this time, nearly half a century later and half a world away, I felt that this perspective was indeed accurate. I had come to recognize why there had been so little progress since the Convention on Biological Diversity in 1992, but was frustrated to find that many experienced policy makers either couldn't or wouldn't see it.

Let me share with you this perspective.

There are several reasons for our lack of progress in biodiversity conservation over the last decade. Perhaps the most important is that most people regard the preservation of nature as a luxury - something to tend to once we address the more "important" problems. This hierarchy of concern and action does not reflect what our best science tells us: the health of ecosystems is directly and causally linked to disease, hunger, water quality, climate change, poverty, and human conflict.

There is no doubt that famine, disease, malnutrition, unclean water and desperate poverty must be dealt with now, while we as a world community put in place practices to limit them in the future. But these issues, no matter how troubling and in need of action, are symptoms of a more far-reaching cause: *the destruction or degradation of natural systems, which have evolved over millions of years and buffer us from disease, pollinate our fields, purify our drinking water, scrub carbon from our atmosphere, and provide natural capital to our local economies.*

Though this perspective has been receiving increasing attention among natural and social scientists and practitioners, most people are unaware of the connections between the quality of their daily lives and the need to protect the natural systems that ensure that quality. This lack of understanding of cause and effect is pervasive, from the halls of government to the citizens of our cities and rural districts.

Unless we find an effective way to communicate the relationship between ecosystem health and human well-being, we stand little chance of stemming the destruction of nature and alleviating the symptoms of disease, poverty, and despair. Let me be clear, I am not talking about the legacy we will leave our grandchildren, though we should be concerned with that, but rather the conditions we will face in our lifetimes, unless we take immediate action.

CERC's education, professional development, and research programs, some of which are highlighted here, provide a broad platform, reaching many sectors of society, for understanding how the natural world works - an important step in the effort to conserve ecosystems and species. We believe that once we all understand the real pattern of cause and effect, nature conservation will no longer be seen as a luxury, but rather as a necessity for us all.

Happy Holidays.

Sincerely,



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DON MELNICK

When I was a little boy, my mother went off to the hospital to give birth to my sister. For reasons I can't quite remember, I stayed home from school with my grandmother, while my older brothers did not. My grandmother seemed very old to me (she was in her 70's) and I didn't like the way she made oatmeal. But we had fun playing cards and after some time, as only a child could do, I asked her if she was afraid to die. She said she wasn't afraid to die, she was afraid of being forgotten. This was a silly notion to me. She was a formidable figure who came to America from Europe at the beginning of the 20th century after a youth of political activism. She was strong-willed, focused, kind, and sage in her advice. People were attracted to her, young and old, family or not. She would not be forgotten, I was sure of that. And to this day, almost 30 years after her death, she comes up in conversation almost every week. Her legacy is in us, her family, and she is not forgotten.

I've thought about that episode a great deal in recent months. Sadly, since February, three friends, ranging in age from 49 to 58 passed away – one from Asia, one from Latin America, and one from Africa – one a botanist, one a zoologist, and one a pathologist. Each had a significant impact on the world around them, two specifically on nature and one more directly on rural people. On the facing page, you will be able to read about my friends and what they did for us. I use "my" because I knew each one personally in very special ways, but actually through their extraordinary work they were everyone's friends.

Dr. Nengah Wirawan was one of the first scientists to show the connection between severe human alteration of tropical forests, El Niño, and massive forest fires. He did this while investigating the devastating fires on Borneo in the 1980's, and became a strong advocate for forest conservation in Indonesia. Dr. Marcio Ayres made a Herculean effort to save a major part of the Brazilian Amazon, after studying one of its unusual inhabitants, the Uacari monkey. He linked the Amazon's future with the future of its people, hand in hand, one mutually benefiting from the other. Dr. Neville Colman, while still a student in South Africa, discovered that the anemia suffered in many rural communities was in fact due to a folate deficiency. This discovery led to the adoption of folic acid as a food additive (check your breakfast cereal) by the World Health Organization, saving millions of lives.

The world, from which they departed far too soon, is a different place because they were among us. They were committed to a greater good for everyone. They didn't just talk about doing good, they actually did it, often at great personal cost, often with great personal danger.

We can derive at least two important lessons from their lives. First, individuals can make a difference. It sounds almost trite, but indeed few people believe it. Individuals can make a difference, if they are capable, committed, and prepared to sacrifice for a larger purpose. Second, each of us leaves a legacy, the glow of which can be quite powerful.

In Nengah, Marcio, and Neville's legacies, we can find new meaning in our efforts to help conserve nature and its inhabitants, including humans. We can find new meaning in the distinction between doing and talking about doing. And we can find new meaning in helping others to reach their goals and make their contribution to the world at large.

This is their legacy. We at CERC are inspired by it. I'm sure you will be too. They will not be forgotten.

Have a safe and enjoyable summer,



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