

## Indigenous Perspectives on Climate Change

Northern California-based ecologist Dennis Martinez believes “traditional ecological knowledge (TEK) and western science cannot be integrated and cannot be bridged.” Still, he says, collaborative research and mutual problem solving between these two fundamentally different ways of knowing are crucial if we are to fully address the environmental issues we all face.

For the past 40 years, Martinez (whose ancestry includes Tohono O’odham and Chicano) has worked to facilitate dialogue incorporating both approaches to understanding the natural world, often in events he shapes to generate intercultural consensus on a variety of ecological and social-justice issues. Some of the issues he’s helped to tackle include indigenous land tenure, genetically modified organism (GMO) threats to traditional agriculture, and climate-change.

Trained in Ecological Restoration and TEK, the northern California-based ecologist works with several environmental organizations, including the Society for Ecological Restoration, the Millennium Ecosystem Assessment, the Indigenous Peoples Restoration Network (which he founded), and First Peoples Worldwide. His efforts often involve organizing and facilitating science-conference roundtables and workshops that set indigenous knowledge keepers alongside Western-scientific experts.



*Ecologist Dennis Martinez*

In recent years his work has taken him to Liverpool, United Kingdom, for a weaving workshop that included Spanish, English and tribal weavers from California; Asia, where he facilitated discussions on traditional agricultural practices; and Milwaukee, for a workshop on traditional rice harvesting and GMO threats to tribal wild rice stocks.

During the wild-rice workshop in Milwaukee, the discussion centered on the conflict between sustaining constant high yields vs. indigenous understandings. “The Creator has set in motion a pattern,” he says. “One year the yield is pretty bad, two are moderate, and the fourth is really productive. Scientists want to level it off, create a consistent high yield; that’s been their goal. But from the ecological point of view, the rice will exhaust itself, so in the end it won’t produce much at all ever, unless you follow the natural cycle. In this case, Western ecological science actually supported the traditional view.”

In 2009 Martinez’s travels will include a trip to Perth, Australia, to facilitate a roundtable discussion on aboriginal vs. Australian federal park service regenerative-burning practices. The event will include members of U.S. tribes, north Australian aboriginal burners, and Gaelic burners from northwestern Spain, each of whom will share their techniques and perspectives on burning.

His approach to facilitating these events generally has him avoiding what he jokingly calls “death by PowerPoint” sessions (although at the Milwaukee wild rice conference he arranged a roundtable placed in front of looping PowerPoint rice-harvesting images). He encourages free-flowing interchanges between knowledgeable participants whose interests might diverge but who, by their very presence, indicate that they’ve come to listen.

Martinez says these events often draw more western scientist observers than conference organizers expect. For example, at the Liverpool conference, he says, “I organized the event, and I couldn’t even get into the room.” One reason for the large turnouts, he says: often at science conferences, some of the scientists are bored with the standard stuff and might want to try something different.” He adds that a small but devoted group of scientists at these events

have demonstrate a consistent interest in TEK. “To me that’s a hopeful sign.”

### **Bridges to Climate Change Solutions**

Recently Martinez has been participating in the fledgling Indigenous Peoples Climate Change Assessment (IPCCA). The organization formed after discussions at the UN Permanent Forum on Indigenous Issues in 2008 and has since drawn support from the United Nations University, Snowchange, the International Society for Ethnobiology, and a host of other indigenous organizations and individuals. One of the IPCCA’s goals is to inject indigenous perspectives into the global conversation on climate change; another is to facilitate the work of organizations such as the Inter-Governmental Panel on Climate Change and the Millennium Ecosystem Assessment by providing local, indigenous perspectives to scientific observations of climate change.

“Our approach,” he says, “is to empower local communities to do their own assessments.” Bringing local wisdom holders into the conversation can help redress what Martinez sees as the under-representation of indigenous knowledge and perspectives in research on climate change. Indigenous observers, he says, can provide deep understanding of ecological changes that Western scientists might miss. He offers an example: “Native Alaskans recognized that ice was thinning as early as the 1960s, whereas Western scientists didn’t acknowledge the problem until 1979.

Martinez points out, “Indigenous people can also nuance the science, for example by talking about the ice in their particular locale, and the different kinds of ice—which Western scientists don’t tend to even recognize—and how it affects wildlife and how it affects one indigenous community one way and another differently. That’s the idea.”

The IPCCA laid out its organizational plan at a meeting last September in Palo Alto, CA, delineating six sub-global communities with indigenous populations on which to focus their efforts: Northern Australia, Micronesia, the Pacific NW U.S., the Andes region of South America, the Arctic, and northeastern Siberia.

For more information on the IPCCA, visit <http://www.ipcca.net/>.

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This profile was written by Dennis Wall, Editor, Institute for Tribal Environmental Professionals, Northern Arizona University, and originally appeared in the Spring 2009 issue of the Native Voices newsletter.