EDF ENVIRONMENTAL DEFENSE FUND
LEADERSHIP TEAM

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Prepared for EDF Eco Partner Members

Partnering with farmers and ranchers to green working lands

AN INTERVIEW WITH ERIC HOLST

Working lands are critical to everything Environmental Defense Fund (EDF) does. About two-thirds of the lower 48 states is composed of working lands. How these lands are managed has a tremendous impact on water, climate, wildlife—and even oceans because fertilizer runoff from farms causes dead zones in the Gulf, Chesapeake Bay and Great Lakes. If we're not concerned about what happens on private working lands, EDF is not going to be as successful in our other program areas.

EDF's Eric Holst

In this special report, Eric Holst, an ecologist and EDF's senior director of Working Lands, describes our strategy and how it was developed during conversations with farmers, ranchers and private foresters, the people who are on the front line of improving and preserving America's working lands. Eric's ability to have open, honest discussions with people from all walks of life is legendary within EDF's Land, Water and Wildlife program. "Eric is phenomenally perceptive. He knows how to invite people into the group to share their viewpoints and values," says Robert Parkhurst, director of EDF's Agriculture Greenhouse Gas Markets, who ended up coming to EDF after seeing Eric in action on a PG&E working group.

Eric's quiet, inclusive approach has won over a lot of people, including California Governor Jerry Brown, who appointed him to the California State Board of Food and Agriculture in 2012. The board is composed of some of the most influential players in the state's agriculture sector. Robert Parkhurst says "State officials didn't put EDF on the board. They wanted Eric."

And for good reason.

Eric, why are working lands so critical to EDF's agenda?

I grew up in California influenced by the naturalist John Muir whose focus was on preserving the wilderness by setting aside lands through conservation. That's how we got Yosemite. But, the deeper and deeper I got into my career, I came to realize that protected lands are not enough to solve the challenges facing us. We're never going to be able to preserve all the lands we want to preserve—so we need to think about how to improve the way private working lands are managed so that they benefit the environment.

With the global population growing, is it feasible to do that when we need working lands to produce more food and energy than ever before?

That's the challenge and that's what is motivating a lot of EDF's work. World population is expected to grow from 7 to 9 billion over the next 35 years or so. We have to find ways to meet humanity's needs for food, water and energy without destroying the planet in the process. For a long time, the environmental community has been satisfied with the idea of minimizing the impact. But that's just slowing down the pace of destruction. EDF wants to turn the tide and create net benefits for the environment—in other words, make landscapes better than they were before.

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Can we go back to the way the world looked 150 years ago when our population was low and impacts on the land were low? No, we can't. But we can work within heavily used landscapes—what are sometimes called human-dominated landscapes—and create substantial environmental benefit. That's not how we've done agricultural for a century or so. But I'm very hopeful that we can shift the paradigm from minimizing environmental harm to providing net environmental benefits.

What's EDF's strategy for improving working lands?

Our strategy is to help make working lands—and by that I mean farms, ranches and forestland—profitable when landowners provide environmental benefits. This includes improving water quality, protecting wildlife habitat and reducing the impact on climate and air quality. In the same way that farmers sell wheat or cattle, they would be able to bring the environmental services they provide to market.

EDF has developed several market mechanisms that would do that. One is called Habitat Exchange. It would offer landowners a new revenue stream when they voluntarily maintain or improve vital wildlife habitat. They would generate credits that companies would buy from the Habitat Exchange to offset unavoidable damage they do to sensitive habitats. Companies would have to buy credits that exceed the impact they have, so the species will benefit by having more and better habitat than before.

Another mechanism we're working on in California would reward rice farmers who voluntarily reduce the impact of their cultivation practices on climate by allowing them to sell greenhouse gas emissions credits in the state's new carbon offset market.

We're also collaborating with Walmart to drive fertilizer pollution out of its supply chain, which will improve water quality and climate stability. We're talking to other big retailers and restaurant chains, too, because when big companies change their procurement practices, they can send price signals into the market by favoring products produced in ways that don't harm the environment.

How do you get farmers and ranchers on board?

I try to put myself in their shoes. The typical environmental approach is: "Hey, you are causing an environmental problem and I'd like to help you to solve that problem." That approach rarely works. EDF takes a different tack. We try to build relationships directly with farmers and with farm bureaus, crop associations and other organizations that represent them. We have spent literally years working to get to know folks, visiting farms and trying to understand the business of farming. It's a tough business and the people who work in it are tough people. Classically, they view environmental issues and environmentalists as people who don't know—or don't consider—their concerns. I listen so I understand their interests. I make my interests known—but I don't try to impose anything on them. That opens up a conversation about how we might mutually meet our interests in ways that benefit both of us.

But it can take a while. One of the major issues we have to overcome every time we meet a new farmer is our name: Environmental Defense Fund. If they don't know us directly, the typical reaction is distrust. So we try to build trust. That's a process. If you build trust with one farmer, it can help with the next one. You have someone to verify that we're there to have a legitimate conversation and not to cause them trouble. We've been at this long enough to have a lot of trusting relationships within the agriculture community.

TIM CONNOR

It sounds like you've spent a lot of time around kitchen tables drinking coffee.

Absolutely. And it's my favorite part of the job. I love getting out and meeting farmers and ranchers and foresters. Ninety percent of the conversation is not about the environment. It's about me trying to understand how they do what they do: What are the challenges of growing corn in Iowa? What's working for you, what's not? How do you make decisions about when to buy equipment? How do you get credit? All the same conversations you would have with any business person about their business model.

You might start the conversation with a little bit of distrust and by the end of it, you're setting up the next conversation. That's the indicator of success if you can set up the second and third and fourth conversation. It takes time.

These conversations led us to our working lands strategy that will improve landscapes and help farmers and ranchers increase their revenue and profitability. When folks realize that you're there to talk about something that might improve their business, it's a different conversation than one that tries to impose constraints on their business.

Tell us about Habitat Exchange. How would it work?

Habitat Exchange is really very simple. Energy companies and other developers would come to the exchange and say, "Hey, I'm going to impact 100 acres of habitat, I need to buy land improvement credits to make up for that damage." The Habitat Exchange would quantify the area—and the quality of the habitat. Farmers and ranchers would then sell credits generated by improving or preserving habitat on their lands. They'd sell those mitigation services just like they would any other agricultural commodity.

U.S. ARMY

Military exercises at Fort Hood Army Base, Texas.

Golden-cheeked warbler.

We've seen this kind of exchange program work. In 2006, we piloted the first exchange at the Fort Hood Army Base in Texas. The Army bought credits from neighboring ranchers for the damage it was doing to habitat needed by the golden-cheeked warbler. Now that population is growing.

As part of setting up the exchanges, EDF and our partners are using rigorous science to measure the actual quality of conservation being done—not just the acres or practices. And since companies have to buy credits at a higher rate of exchange—in other words, that they have to improve more land than they damage—the overall landscape will be better afterwards than it was before.

Can energy production exist in a way that doesn't hurt wildlife?

The reality is that if you're doing anything in wildlife habitat, you're going to have an impact. There are direct impacts if you put in an oil well or plow up native grass. But even wind farms and solar panels have an impact on wildlife, which is a real conundrum for the environmental community because from a climate perspective, they are among the cleanest energy sources we have.

So the question is: can you minimize the overall impact on wildlife and develop a system whereby any impact is offset by improving habitat elsewhere to a greater degree than the damage caused? To be clear, there are some species of wildlife that are so close to the brink that we don't want to allow any additional impacts on their habitat. The whooping crane, for example, can't afford to lose any more ground. But for many species, particularly in working landscapes where their habitat can be restored, I think a balance can be found. But we'll have to be very, very careful in how development is implemented.

What's the next step?

We are on the verge of implementing the first large scale Habitat Exchange for the lesser prairie-chicken—which has declined by more than 90% over the past 40 years. In March, it was added to the list of threatened species. We've submitted all the paperwork to the U.S. Fish and Wildlife and expect shortly to begin to initiate a Habitat Exchange program that will span five states (Texas, Oklahoma, Kansas, Colorado and New Mexico). We worked closely with five major oil and gas companies and several agriculture organizations operating within that range to develop the exchange.

Lesser prairie-chicken.

The Habitat Exchange would govern transactions. A conservation plan will designate some parts of the landscape more valuable to a species than others—so farmers who happen to have the most valuable habitat will be eligible to earn more revenue.

Ultimately, the pattern of conservation is going to be driven by the market and guided by a science-based landscape conservation plan.

Will the farmers have to actually do anything to their land?

In every case, they'll have to do something, ranging from restoring land that has been degraded to making a commitment to protect existing habitat over time. One of the jobs of the exchange is to quantify the benefits and turn the credit into a unique, dated, serialized instrument so it can only be used once to satisfy mitigation requirements.

Let's turn to rice. Why is it important?

Rice is probably the most important food source globally. It produces the most calories for humanity and is planted on nearly every continent. So the idea is to try to create growing conditions for rice that leave a softer footprint on the environment.

What's the problem with rice?

All agriculture has an impact on the environment. But because most rice is grown under water, it produces methane — and methane is a potent greenhouse gas. It's produced when organic material decomposes under water. (Livestock also produces methane.) Scientists have made it clear that rice is a crop we need to pay attention to because of its impact on climate.

In 2007, shortly after California passed AB32, the Global Warming Solutions Act, EDF established a partnership with rice growers in the Central Valley to try to reduce methane emissions. Rice farmers are not regulated by the act. But other sectors are. Transportation and manufacturing sectors, for instance, have caps on their greenhouse gas emissions. If they can't meet that cap, the law allows them to buy greenhouse gas reduction credits generated by other unregulated industries through the carbon market.

EDF has worked with the California Rice Commission to develop the market structure and rules and methodologies that would let rice farmers adopt new agricultural practices, measure their emissions reductions and then sell them as offsets.

All this work will come to a head in September when the California Air Resources Board considers the protocol we developed. If approved, it will launch the opportunity for rice growers to produce offsets—and open the door to other farmers, too. Like our work on Habitat Exchange, the rice protocol will allow private landowners who provide environmental benefits to profit.

How does a rice farmer reduce emissions?

That's part of what took us so long to get to this point. We had to do extensive science to understand what techniques rice growers could adopt to not only reduce emissions, but increase yield. We don't want to put farmers out of business or produce less food. We understand that the world has to produce more food.

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The answer lies in keeping the soil dry for as long as possible. Rice is flooded during the growing season but if you can dry the land at other times, you can reduce methane emissions and have a climate benefit. So the California Rice Protocol delineates different ways to keep the land dry and helps calculate the emission reduction for that period of time that the land is dry. One involves seeding dry soil, rather than flooded fields. At the root of this work is an understanding of how rice interacts with soil—and how it interacts with organic matter to produce methane and other by-products by decomposing.

Can this work be leveraged beyond California?

Yes. We started working with rice growers in California and have now extended this work to Louisiana, Texas, Mississippi and Arkansas. EDF's international team is in Vietnam, China and India, where rice is a much more important crop. All of us have been working with farm communities in different parts of the world. We get together regularly to compare notes and we're all reaching the same conclusion: Offset markets could be very helpful in reducing greenhouse gas emissions from agriculture.

What's next?

Rules for both Habitat Exchange and rice offsets are now with the regulatory agencies. Once they're approved, we need to launch them, refine how they work and gauge how effective they are at achieving environmental results. Then we'll look for new opportunities to make the land pay for landowners who provide eco-services that benefit us all.

You have three children (ages 7–14). How are you teaching them to enjoy and protect nature?

My wife Poonie and I spend a lot of time in the garden with the kids catching bugs and taking care of our tomatoes. We have a no-till garden that I've written about in a blog on the EDF website. We love being outside. This summer we're planning a big road trip to Glacier National Park. We'll camp and hike and rock climb along the route. And we're going to stop and visit a few farmers and ranchers that I've met through my work at EDF. It should be a great trip.

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